

Appendix A – Groundwater Investigation Work Completed by URS for VRP



Technical Memorandum

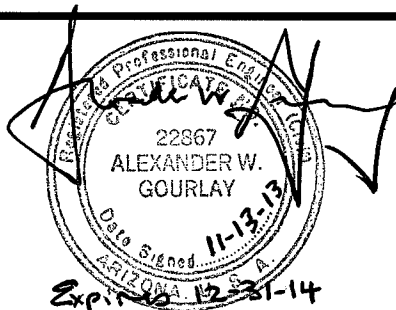
333 E. Wetmore Road
Suite 400
Tucson, Arizona 85705
520.887.1800 Tel
520.887.8438 Fax

To Kanyembo Katapa – FMI Sierrita
Martha Mottley – FMI Sierrita

From Rick Smith
Alexander W. Gourlay, PE

Date November 13, 2013

Subject **Description of Voluntary Remediation Program (VRP) Investigation
Field Work Completed by URS**



This memorandum describes the field investigation activities performed by URS at the Sierrita Mine (Site) located near Green Valley, Arizona. These activities were conducted under the Arizona Voluntary Remediation Program (VRP) administered by the Arizona Department of Environmental Quality. The activities were performed between July 2008 and July 2009.

MONITOR WELL CONSTRUCTION, INSTALLATION, AND DEVELOPMENT

Temporary Monitor Well Installation and Construction

Direct push technology (DPT) was used to create a borehole for the installation of temporary monitor wells (TW-2008-series wells). A total of 14 temporary monitor wells were installed to collect samples of alluvial groundwater. The total depth of the temporary monitor wells ranged from 5.5 to 20 feet below ground surface (ft bgs). Borehole logs and well construction diagrams are included in Attachment 1.

Temporary monitor well installation and construction consisted of the following steps:

- A 3.75-inch outer diameter (OD) drive casing fitted with an expendable drive point was advanced to refusal.
- A pre-packed screen assembly (2.5-inch OD) was inserted through the drive casing and the drive casing was subsequently removed. The screen assembly consisted of a standard 1-inch diameter, slotted polyvinyl chloride (PVC) well screen surrounded by stainless steel mesh, with 20/40 filter sand factory-packed between the slotted PVC and the stainless steel mesh.
- The annulus around the well screen and riser was filled with a sand pack consisting of size 20/40 sand. A well seal consisting of granular bentonite was installed above the sand pack and hydrated with water.
- The top of the PVC well riser pipe was surrounded by a 3-inch diameter, galvanized steel casing set in 3,000-pound-per-square-inch concrete, extending to approximately 3 feet above ground surface. A vented well cap was installed on each well casing.

Permanent Bedrock Well Installation

A Central Mine Equipment (CME) 1250 truck-mounted drilling rig equipped with air rotary casing hammer (ARCH) technology was used to drill the boreholes for the permanent monitor wells (MW-2008-series wells). A total of 15 permanent monitor wells were installed to collect groundwater samples. Four background monitor well locations (MW-2008-12, MW-2008-13, MW-2008-14, and MW-2008-15) were cored to obtain rock core samples for analysis. The cored boring was subsequently over-drilled so that the monitor well could be installed (see next section on coring of background monitoring wells). The total depth of the monitor wells installed ranged from 45 to 107.5 ft bgs. Borehole logs and well construction diagrams are included in Attachment 1.

Permanent monitor well installation consisted of the following steps:

- The monitor well borings were drilled using air rotary drilling methods. A 10-inch diameter Stratex bit was used to drill the borings for MW-2008-01 and MW-2008-02. An 8-1/2-inch diameter button bit was used to drill the borings for the remaining monitor wells. Compressed air was used to lift cuttings from the borehole, which were discharged through a cyclone and into a portable hopper.
- A URS field geologist collected cuttings at 5-foot intervals from the cyclone. The cuttings were logged in accordance with the Unified Soil Classification System (USCS).
- Well riser and screen material consisted of 4-inch diameter, schedule 40 PVC with flush-threaded joints. Well screens were 10 feet long and factory slotted with a slot size of 0.020 inches. All casing and screen material was received in original factory packaging.
- The bottom of each well was sealed with a flush-threaded end cap. Casing and screen materials were installed plumb and properly aligned.
- The annulus around the well screens was filled with a sand pack consisting of size 8/12 sand extending from the bottom of the boring to about 5 feet above the top of the screen section. During emplacement, the drilling subcontractor continuously monitored the depth of the filter pack with a weighted measuring tape.
- A 3-foot thick bentonite seal was placed directly above the filter pack. The seal was composed of commercially manufactured bentonite pellets or chips (1/4-inch diameter). The bentonite pellets were poured into the borehole and hydrated before the rest of the well annulus was sealed. During emplacement, the drilling subcontractor continuously monitored the depth of the seal with a weighted measuring tape.
- An annular seal was placed above the 3-foot bentonite seal. The annular seal was a cement grout mixture consisting of Portland cement, bentonite, and water. The grout ratio consisted of about 7.5 gallons of water mixed with 4 pounds of bentonite, then mixed with one 94-pound bag of cement.
- Monitor wells were completed above grade with a locking steel shroud. The top of the PVC well riser pipe was surrounded by an oversized diameter steel casing set in 3,000-pound-per-square-inch concrete extending approximately 3 feet above ground surface. A vented well cap was installed on each well casing.
- A circular concrete apron (24-inch diameter by 4 inches thick) was constructed as a surface seal and sloped away from the well.

- Four, 3-inch diameter, 6-foot long bollard posts were set in concrete, and spaced equally around the concrete pad. The bollards were set at 36 inches high, and painted with yellow reflective paint.
- A well completion diagram form was completed for each well. Well materials and quantities used were described in the field logbooks.

Coring of Background Monitor Wells

A CME 1250 truck-mounted drilling rig was used to core the borehole locations for the background monitor wells so that rock core samples could be collected for laboratory analysis. The total depth of the coring ranged from 69.2 to 170 ft bgs, with the objective being to collect core from the uppermost 20 feet of the bedrock aquifer. Upon completion of coring, the boreholes were over-drilled for monitor well installation as described in the previous section. Coring consisted of the following steps:

- The coring was conducted using an approximately 3 7/8-inch diameter diamond bit with a 5-foot core barrel, creating a core of approximately 2 1/4 inches in diameter.
- A URS field geologist logged the core in the field to establish preliminary borehole lithologies and describe observations of fracturing and mineralization. The core was then transported to the Sierrita core building for storage and logging by a Sierrita geologist.
- Twenty-seven (27) core and 7 cuttings samples were selected for whole-rock radionuclide analyses.

WELL DEVELOPMENT

The MW-2008-series monitor wells were developed after installation to remove suspended solids and settle filter pack material. Because of low well yields, it was not practical to develop the wells by pumping. The wells were developed 72 hours after completion by surging and bailing using a Smeal development rig. After the initial surging and bailing, groundwater within the wells was allowed to recover to static condition and then bailed a second time.

Temporary monitor wells (TW-2008-series wells) were developed using a peristaltic pump and dedicated tubing. Pumping was performed until suspended solids dissipated and field water quality parameters stabilized or the well went dry.

During well development, field measured temperature, pH, specific conductivity, dissolved oxygen (DO), and turbidity were monitored. Well development information for each well was recorded on a well development form. The well development records are included in Attachment 2.

SURVEYING

The monitor wells were surveyed by an Arizona-registered URS land surveyor following well completion and development. For each well, horizontal location coordinates and elevation of ground surface, north side of the top of the well casing, and rim of the well vault were measured. Survey data are referenced with a vertical datum in feet above mean sea level (ft amsl) using North American Vertical Datum (NAVD) 88 (Grid) and a horizontal datum of North American Datum (NAD) 83 using the Arizona State Plane (Central Zone; feet) coordinate system.

SLUG TEST PROCEDURES

A series of slug tests were completed by URS at 17 wells within the Ruby Star Granodiorite, Harris Ranch Quartz Monzonite and tailings at the Site from November 6 through 21, 2008. The objective of these tests was to estimate the hydraulic conductivity of the formation at each well location. The wells tested were MW-2008-01 through MW-2008-15 (omitting MW-2008-14), and PZ-2008-19 and PZ-2008-20. The data from MW-2008-15 were not analyzed because the well had not recovered after three days.

Paired slug tests were performed on each monitoring well by first submerging a solid slug below the water table and measuring the response as water levels returned to static conditions (falling head test), and then removing the solid slug from the well while measuring the water-level response until static conditions were again reached (rising head test). A pressure transducer equipped with a data logger was used to continuously record changes in the water levels within the well during each test.

PROCESS SOLUTION SAMPLING AND ANALYSIS

Process Solution Sampling Events

Four quarterly sampling events were conducted in October-November 2008, January 2009, April 2009, and July 2009. Nineteen process ponds, intercepts and sumps were sampled. A total of eight sampling events (four quarterly and four additional) were conducted at the Decant Pond (i.e., Decant Solution). A total of seven sampling events (four quarterly and three additional) were conducted at the Reclaim Pond. The additional sampling events at the Reclaim Pond and Decant Pond were conducted to provide data on the variability of constituent concentrations in these solutions.

Sampling Methods and Procedures

Process solutions were sampled using the procedures specified in the URS 2008a Work Plan (Work Plan). Grab samples of the process solutions were collected from the process solution ponds, intercepts, and sumps using the following sampling tools as appropriate: peristaltic pump, portable sump pump, dedicated existing sump pump, or 5-gallon bucket. A minimum of one set of field parameters (pH, temperature, turbidity, conductivity, DO, and oxidation-reduction potential [ORP]) was collected for each sample during each sampling event.

Process Solution Sample Field and Laboratory Analyses

Process solution samples were analyzed for the following constituents:

- Radionuclides, including gross alpha, gross beta, isotopic radium (radium-226 [Ra-226] and radium-228 [Ra-228]), and isotopic uranium (uranium-234 [U-234], uranium-235 [U-235], and uranium-238 [U-238])
- Dissolved metals, including aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, and zinc
- General water quality parameters, including total dissolved solids (TDS), major cations (calcium, magnesium, sodium, and potassium) and major anions (sulfate, nitrate, nitrite, chloride, fluoride, bicarbonate, and carbonate)
- Field parameters, including pH, specific conductivity, temperature, DO, turbidity and ORP

Field parameter measurements were performed using a Horiba U22XD water quality instrument owned by Sierrita. The Horiba U22XD was calibrated each morning before use. Calibration data were recorded in the field logbook and on the sampling records (Attachment 3). DO, temperature, ORP, specific conductivity, turbidity, and pH measurements were made during each sample collection event.

TAILINGS MATERIAL SAMPLING PROCEDURES

Two soil borings were advanced in the Esperanza tailing and four soil borings were advanced in the Sierrita tailing to characterize the tailing material for metals and radionuclides. Three of the tailing borings were converted to piezometers and sampled to characterize the tailing water within the impoundments (See section-Field Deviations From The Work Plan).

Tailings Material Sampling Procedures

A CME 85 truck-mounted drill rig equipped with 8 1/4-inch hollow stem augers was used to advance soil borings ET-SB-01 and ET-SB-02. A CME 1250 track-mounted drill rig equipped with 9-inch hollow stem augers was used to advance soil borings ST-SB-01, ST-SB-03, ST-SB-04, ST-SB-05, and ST-SB-06. Soil borings ST-SB-05 and ST-SB-06 were also part of a tailing stability study not related to the VRP investigation.

Soil samples were collected from each boring on 5-foot intervals, beginning at tailing surface and terminating at native soils. Soil samples were collected using a split-spoon sampler. Soil samples were removed from the sampler, placed in plastic bags and sealed. The samples were then composited on 20-foot intervals (for example, 0-20, 20-40, 40-60) for laboratory analysis. The samples were composited using a stainless steel bowl and spade that were decontaminated between borings. A URS field geologist visually classified the samples in general accordance with the USCS.

Tailings Material Piezometer Installation

Soil borings ST-SB-03, ST-SB-04, and ST-SB-05 were converted to piezometers PZ-2008-20, PZ-2008-19, and PZ-2008-16, respectively. The total depth of the piezometers installed ranged from 110 to 280 ft below tailing surface. Borehole logs and well construction diagrams are included in Attachment 1.

Piezometer installation consisted of the following steps:

- The piezometer borings were drilled using 9-inch diameter hollow stem augers.
- Well riser and screen material consisted of 2-inch diameter, schedule 40 PVC with flush-threaded joints. Well screens were 10 feet long and factory slotted with a slot size of 0.020 inches. All casing and screen material was received in original factory packaging.
- The bottom of each well was sealed with a flush-threaded end cap. Casing and screen materials were installed plumb and properly aligned.
- The annulus around the well screens was filled with a sand pack consisting of size 8/12 sand extending from the bottom of the boring to about 5 feet above the top of the screen section. During emplacement, the drilling subcontractor continuously monitored the depth of the filter pack with a weighted measuring tape.
- A 5-foot thick bentonite seal was placed directly above the filter pack. The seal was composed of commercially manufactured bentonite pellets. The bentonite pellets were poured into the borehole

and hydrated before the rest of the well annulus was sealed. During emplacement, the drilling subcontractor continuously monitored the depth of the seal with a weighted measuring tape.

- An annular seal was placed above the 5-foot bentonite seal. The annular seal was a cement grout mixture consisting of Portland cement, bentonite, and water.
- Piezometers were completed above grade without a locking steel shroud. A vented well cap was installed on each well casing. Protective casing and bollards were not installed.

PIEZOMETER SAMPLING

In November 2008, grab samples were collected from piezometers PZ-2008-16, PZ-2008-19, and PZ-2008-20 using dedicated disposable bailers. The piezometers were not developed or purged prior to sampling due to the inability to get equipment on the tailing during deposition. A single measurement of field parameters (pH, temperature, turbidity, specific conductivity, DO, and ORP) was collected from each piezometer during sampling.

GROUNDWATER SAMPLING AND ANALYSIS

Four quarterly groundwater sampling events were conducted in October and November 2008, January 2009, April 2009, and July 2009. Groundwater was sampled using the procedures specified in the Work Plan.

Well Sampling Methods and Procedures

Newly installed monitor wells, temporary wells, and existing monitor wells were purged and sampled in accordance with the standard operating procedures (SOPs) presented in the Work Plan: URS SOP-005 and FMI SOP WS-3. A combination of low-flow and total well volume sampling methodologies was used. Non-dedicated pumps were used for purging and sampling newly installed monitor wells. Existing monitor wells were sampled using dedicated submersible pumps. Sampling records are included in Attachment 3.

Low-Flow Purge Methodology

The wells were purged until field parameters (pH, temperature, turbidity, DO, ORP, and specific conductivity) stabilized. Readings were collected from a rate commensurate with the flow involved, but no more frequently than every 3 minutes. Low-flow purging rates on the order of 0.1 to 0.5 liter per minute were used depending on the site-specific hydrogeology. The maximum allowable drawdown during low-flow purging was 0.3 feet.

Low-flow purging was deemed complete when required field parameters stabilized. Stabilization was achieved when two consecutive readings showed temperature within ± 1 °C, pH values within ± 0.1 pH unit, turbidity less than or equal to 10 NTUs or within ± 10 percent, specific conductivity within ± 5 percent, DO within ± 10 percent, and ORP within ± 10 millivolts (mV).

Total Well Volume Purge Method

The total well volume purge method was used to purge groundwater from a well prior to sampling if a water-level drawdown greater than 0.3 feet occurred during purging at a purge rate of 0.1 liter per minute or less; or if a dedicated pump was present in the well. Using the total well volume purge method, the well was purged until a minimum of three total well casing volumes were removed and field parameters (pH, temperature, turbidity, specific conductivity, DO, and ORP) were stable.

Temporary Monitor Well Peristaltic Sampling (Grab) Methodology

Grab samples were collected from the temporary alluvial wells using dedicated tubing and a peristaltic pump. Well purging was not performed since the temporary wells produced limited quantities of water. One set of field parameters (pH, temperature, turbidity, specific conductivity, DO, and ORP) was collected.

Groundwater Sample Field and Laboratory Analyses

Groundwater samples collected from each well were analyzed for:

- Radionuclides, including gross alpha, gross beta, isotopic radium (Ra-226 and Ra-228), and isotopic uranium (U-234, U-235, and U-238)
- Dissolved metals, including aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, and zinc
- General water quality parameters, including TDS, major cations (calcium, magnesium, sodium, and potassium) and major anions (sulfate, nitrate, nitrite, chloride, fluoride, bicarbonate, and carbonate)
- Field parameters, including pH, specific conductivity, temperature, dissolved oxygen, turbidity and ORP.

Equipment Decontamination

DPT equipment used to create boreholes for the temporary monitor wells was decontaminated between locations using an Alconox and distilled water rinse. The ARCH drilling equipment (drill bit) was decontaminated by brushing rock dust from the drill bit between boring locations.

Investigation-Derived Waste Management

Soil and rock cuttings from borehole drilling were containerized in roll-off bins. A composite sample from the roll-off bins was collected and analyzed using the toxicity characteristic leaching procedure (TCLP) for eight Resource Conservation and Recovery Act (RCRA) metals. The laboratory test results indicated that the cuttings were non-hazardous. The cuttings were disposed in the Sierrita landfill.

Well development water was containerized and discharged to Duval Canal where it could be used for mine operations. Purge water was managed in a manner consistent with the Sierrita APP sampling practices for existing wells. Purge water was placed on the ground adjacent to the well.

FIELD DEVIATIONS FROM WORK PLAN

The following Work Plan deviations occurred during implementation of the VRP sitewide groundwater investigation program:

- The Work Plan specified that annular materials be installed using a tremie pipe. Because boreholes were drilled in stable bedrock and at relatively shallow depths, annular materials were poured from the surface and tagged during emplacement instead of using a tremie pipe.
- The Work Plan specified that wells be developed by pumping after initial bailing and surging. Bailing was used to develop the bedrock monitor wells instead of pumping because the bedrock

wells have low water yields and suspended solids (fines) were minimal. Furthermore, because of the low water yield it was not practical to pump the wells during development.

- The Work Plan specified that the maximum allowable drawdown during low flow purging was 0.3 feet. Because of low well yields of less than 0.1 liter per minute, the maximum allowable drawdown limit of 0.3 feet could not be maintained. URS attempted low flow purging and sampling of the newly installed wells during the first two sampling events. For the final two sampling events, URS modified the purging method. The wells were purged dry using a Grundfos RediFlo 2 submersible pump and controller. The wells were allowed to recover to at least of 80 percent of the static water level before sampling.
- The Work Plan specified that micropurge (low-flow) sampling methods be used to sample the newly installed monitor wells. Because of low well yields during low flow sampling, the wells were purged dry, allowed to recover to 80 percent of static water level, and then sampled using low-flow methods.
- The Work Plan specified for monitor well MW-2008-08 was downgradient of Former C Pond. Because of difficult terrain that limited drill rig access, MW-2008-08 was installed within the footprint of Former C Pond on the downgradient (east) side.
- The Work Plan did not specify a temporary alluvial well TW-2008-13 at the Former C Pond. Temporary alluvial well TW-2008-13 was added to evaluate alluvial groundwater encountered during drilling and installation of bedrock monitor well MW-2008-08. TW-2008-13 was installed adjacent to MW-2008-08.
- The Work Plan did not specify a temporary alluvial well TW-2008-14 at the Former Laydown Yard. Temporary alluvial well TW-2008-14 was added at the Former Laydown Yard to evaluate whether alluvial groundwater was present downgradient of the Former Laydown Yard.
- The Work Plan did not specify a temporary alluvial well TW-2008-15 at the Former Raffinate Pond. Temporary alluvial well TW-2008-15 was added to evaluate alluvial groundwater encountered during drilling and installation of bedrock monitor well MW-2008-11. TW-2008-15 was installed adjacent to MW-2008-11, upgradient of the Former Raffinate Pond.
- The Work Plan specified two temporary alluvial monitor wells downgradient of Bailey Lake. Only one temporary alluvial well TW-2008-09 was installed in this area since three existing observation sumps that are constructed in the Alluvium are located in this area. These sumps were named SX-Sump 1, SX-Sump 2, and SX-Sump 3 during the VRP sitewide groundwater investigation and were added to the sampling program.
- The Work Plan specified that the Former B Pond be sampled if it contained water. Former B Pond contained a small amount of water that was impractical to sample because of difficult access. Instead, samples were collected from an inactive concrete sump (B Sump) at the east end of the Former B Pond.
- Temporary alluvial well TW-2008-01 was installed downgradient of Headwall No. 5 as specified in the Work Plan. TW-2008-01 was subsequently plugged and abandoned after the initial sampling in July 2008 to allow for construction of the drainage channel for Headwall No. 5.
- The Work Plan specified that temporary alluvial wells TW-2008-02, TW-2008-03, TW-2008-05, TW-2008-08, TW-2008-14, and TW-2008-15 would be sampled for four quarters. These wells were not sampled because they were either dry or did not contain sufficient water for sample collection. Temporary alluvial well TW-2008-02 was destroyed by equipment and TW-2008-08 was damaged by equipment. Temporary alluvial well TW-2008-06 was not installed during the

VRP Investigation due to refusal at 4 ft bgs. The Work Plan specified that four borings be drilled and the tailings solids sampled within the Sierrita Tailing Impoundment. A fifth boring (ST-SB-06) was drilled to support a tailing stability study not related to the VRP investigation. Soil boring ST-SB-02 was proposed for the southwest area of the tailing impoundment. This boring was moved to the east side of the tailing impoundment because of active tailing deposition and renamed ST-SB-05. However, soil samples were submitted from ST-SB-06 instead of ST-SB-05. Three of the tailing borings were converted to piezometers PZ-2008-16, PZ-2008-19, and PZ-2008-20 to support the tailing stability study. The conversion of the soil borings to piezometers was not specified in the Work Plan. To support the VRP sitewide groundwater investigation, groundwater samples were collected from the three piezometers in November 2008 to characterize the tailing water within the impoundment.

- The Work Plan specified that monthly sampling (12 events) and analysis of Reclaim Pond and the Decant Pond. Instead, eight sampling events were conducted at the Decant Pond; seven sampling events were performed at the Reclaim Pond.

REFERENCES

URS Corporation. 2008a. Voluntary Remediation Program (VRP) Investigation Work Plan, Freeport-McMoRan Sierrita Inc., Green Valley, Arizona. Volumes I and II. Prepared for Freeport-McMoRan Sierrita Inc. April.

Attachment 1 Boring and Well Construction Logs



333 East Wetmore, Suite 400
Tucson, AZ 85705
520-887-1800
520-887-8438 (Fax)

BORING LOG: TW-2008-01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Rick SmithKevin Walsh
START DATE/TIME: 07/18/2008 01:17 AM
FINISH DATE/TIME: 07/22/2008 12:00 AM

LATITUDE (NAD83): Not Surveyed
LONGITUDE (NAD83): Not Surveyed

TOP OF GROUND ELEVATION (NAVD88): Not Surveyed

COMMENTS: Well was abandoned.

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
			SP-SM		Poorly Graded Sand with silt, dark yellowish brown (10yr 4/4) to gray (7.5yr 6/0), moist, medium dense
5			SM		4.0' Silty Sand, red (2.5yr 5/2), dry, medium dense with weak extrusive volcanics
			SM		7.0' As above, increase in gravel, moist
10					9.0' Total depth = 9 feet bgs.
15					
20					



333 East Wetmore, Suite 400
Tucson, AZ 85705
520-887-1800
520-887-8438 (Fax)

BORING LOG: TW-2008-02

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/21/2008 01:15 PM
FINISH DATE/TIME: 08/21/2008 01:36 PM

LATITUDE (NAD83): 947091.62
LONGITUDE (NAD83): 309143.77

TOP OF GROUND ELEVATION (NAVD88): 3725.64 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3725				
5	3720		GM		Silty Sand with gravel, fine grained with fine gravels, yellowish brown (10yr 5/4), poorly sorted, dry, loose.
				6.0'	
			CL		Decomposed Granite with some gravels and sand, gray, powdery.
				8.0'	
10	3715				Refusal at 8 feet bgs.
15	3710				
20	3705				



333 East Wetmore, Suite 400
 Tucson, AZ 85705
 520-887-1800
 520-887-8438 (Fax)

BORING LOG: TW-2008-03

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/26/2008 10:38 AM
FINISH DATE/TIME: 08/26/2008 11:20 AM

LATITUDE (NAD83): 947391.215
LONGITUDE (NAD83): 309557.538

TOP OF GROUND ELEVATION (NAVD88): 3679.36 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
			SM		Silty Sand, fine grained, dark yellowish brown (10yr 3/4), dry, loose.
			SM		1.0' Silty Sand with gravel, fine grained with fine gravels, dark yellowish brown (10yr 3/4), dry, loose.
5	3675		SM		4.0' Silty Sand, fine grained, dark yellowish brown (10yr 3/4), dry, loose.
			SM		6.0' Silty Sand with gravel, fine grained with fine gravels, dark yellowish brown (10yr 3/4), dry, loose, multi-colored staining.
10	3670		SM		12.0' Same to 16 feet bgs. Moisture present.
15	3665		SM		
			SM		18.0' Black-stained silt with gray, weathered granite bedrock.
20	3660				20.0' Refusal at 20 feet bgs.



333 East Wetmore, Suite 400
 Tucson, AZ 85705
 520-887-1800
 520-887-8438 (Fax)

BORING LOG: TW-2008-04

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Rick Smith
START DATE/TIME: 08/22/2008 09:15 AM
FINISH DATE/TIME: 08/22/2008 10:22 AM

LATITUDE (NAD83): 947557.522
LONGITUDE (NAD83): 309239.672

TOP OF GROUND ELEVATION (NAVD88): 3666.11 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
0	3665				
5	3660		SM		Silty Sand, fine grained, dark yellowish brown (10yr 3/4), moist, loose, trace fine gravels at 3.5' bgs.
8.0'					
10	3655		SM		Silty Sand with gravel, fine gravel, yellowish brown (10yr 5/6), moist, loose.
12.0'			ML		Silt with clay, dark gray (5yr 4/1)
12.3'			SM		Silty Sand with gravel.
12.5'			ML		Silt with clay, fine sand, dark gray (5yr 4/1), moist, med. stiff, trace gravels.
13.0'					Gravel, host-rock texture, aphanitic, green-gray, some staining, pyrite visible.
15			GP		
16.0'	3650		NONE		Granodiorite, refusal at 16 feet bgs.
20					



333 East Wetmore, Suite 400
Tucson, AZ 85705
520-887-1800
520-887-8438 (Fax)

BORING LOG: TW-2008-05

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/25/2008 08:50 AM
FINISH DATE/TIME: 08/25/2008 09:10 AM

LATITUDE (NAD83): 948456.636
LONGITUDE (NAD83): 308332.172

TOP OF GROUND ELEVATION (NAVD88): 3635.27 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3635				Silty Sand with gravel, fine grained with fine gravels, brown (10yr 5/3), dry, loose.
5	3630		SM		
					7.0' -----
					Boulder, gray, chalky.
					9.0' -----
10	3625		SM		Silty Sand with gravel, fine grained with gravels, brown (10yr 5/3), dry, loose.
					10.0' -----
					Decomposed Granite.
			NONE		
					12.0' -----
					Refusal at 12 feet bgs.
15	3620				
20	3615				



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BORING LOG: TW-2008-06

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

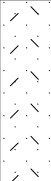

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/26/2008 08:20 AM
FINISH DATE/TIME: 08/26/2008 08:50 AM

LATITUDE (NAD83): Not Surveyed
LONGITUDE (NAD83): Not Surveyed

TOP OF GROUND ELEVATION (NAVD88): Not Surveyed

COMMENTS: Well was not installed.

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
-	-	-	SC		Clayey Sand, fine grained, dark yellowish brown (10yr 4/4), wet, loose. Chalk-like.
-	-	-	NONE		3.0' Granodiorite, refusal at 3 feet bgs.
5	-	-	-	-	-
10	-	-	-	-	-
15	-	-	-	-	-
20	-	-	-	-	-



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BORING LOG: TW-2008-07

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/25/2008 10:30 AM
FINISH DATE/TIME: 08/25/2008 11:30 AM

LATITUDE (NAD83): 948878.716
LONGITUDE (NAD83): 310342.294

TOP OF GROUND ELEVATION (NAVD88): 3701.28 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3700		SM		Silty Sand, fine grained, dark yellowish brown (10yr 4/6), loose, dry, well sorted.
					2.0'
			SM		Same, with water at 2 feet bgs.
5					
	3695				Granite
			NONE		
					6.0'
					9.0'
10					Refusal at 9 feet bgs.
	3690				
15					
	3685				
20					



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BORING LOG: TW-2008-08

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/19/2008 10:13 AM
FINISH DATE/TIME: 08/19/2008 11:10 AM

LATITUDE (NAD83): 952645.044
LONGITUDE (NAD83): 315381.887

TOP OF GROUND ELEVATION (NAVD88): 3626.01 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3625		SM		Silty Sand, fine grained, light olive gray (5y 6/2), dry, loose.
				1.0'	Silt with sand, fine grained, brown (10yr 5/3), dry, loose.
5			ML		
	3620			6.0'	Silty Sand with gravel, fine grained with fine gravel, brown (10yr 5/3), wet, loose. Hydrocarbon odor from 12 to 14 feet bgs.
10			SM		
	3615			14.0'	Refusal at 14 feet bgs.
15					
	3610				
20					



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BORING LOG: TW-2008-09

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/19/2008 08:30 AM
FINISH DATE/TIME: 08/19/2008 09:50 AM

LATITUDE (NAD83): 952729.498
LONGITUDE (NAD83): 315182.102

TOP OF GROUND ELEVATION (NAVD88): 3612.44 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
			ML		Silt with sand and gravel, fine grained with fine gravels, brown (10yr 4/3), dry, loose.
	3610		ML		Same, wet at 3 feet bgs. Copper sheen on geoprobe downhole equipment at 4 feet bgs.
5			SM		Silty Sand with gravel, fine to medium sand with fine gravels, pale brown (10yr 6/3), silt, poorly sorted, wet.
			NONE		Granite bedrock, dark gray, consolidated, cemented.
	3605				Granite, refusal at 8 feet bgs.
10					
	3600				
15					
	3595				
20					



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BORING LOG: TW-2008-10

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh, Armando Jimenez
START DATE/TIME: 08/18/2008 10:40 AM
FINISH DATE/TIME: 08/18/2008 02:10 PM

LATITUDE (NAD83): 953238.281
LONGITUDE (NAD83): 315413.441

TOP OF GROUND ELEVATION (NAVD88): 3605.57 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3605		ML		Silt with sand, fine grained with fine sand, yellowish brown (10yr 5/6), loose, dry.
				2.0'	
			CL		Lean Clay, reddish brown (5yr 4/3), malleable, very wet, organic odor.
5	3600				
10	3595		NONE		Gravel, medium grained, gray, wet, loose.
15	3590				
20	3585				Decomposed Granite, refusal at 13.5 feet bgs.



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BORING LOG: TW-2008-11

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh, Armando Jimenez
START DATE/TIME: 08/18/2008 08:30 AM
FINISH DATE/TIME: 08/18/2008 10:00 AM

LATITUDE (NAD83): 954394.206
LONGITUDE (NAD83): 315606.195

TOP OF GROUND ELEVATION (NAVD88): 3565.11 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3565		ML		Silt with sand, fine grained with fine sand, yellowish brown, loose, dry.
				1.0'	Silt with sand and gravel, fine grained with fine to medium gravels, yellowish brown, loose, dry.
			ML		
5	3560			6.0'	Same, very wet at 7 feet bgs.
			ML		
				8.0'	Silty Sand with gravel, fine sand with fine to medium gravel, yellowish brown, loose, dry.
			SM		
10	3555			10.0'	Decomposed Granite turning into clay, fine grained, gray, loose, wet.
			NONE		
				12.0'	Decomposed Granite, refusal at 12 feet bgs.
15	3550				
20	3545				



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BORING LOG: TW-2008-12

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/14/2008 01:30 PM
FINISH DATE/TIME: 08/14/2008 02:50 PM

LATITUDE (NAD83): 956104.553
LONGITUDE (NAD83): 315756.702

TOP OF GROUND ELEVATION (NAVD88): 3531.63 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3530		SM		Silty Sand with gravel, fine grained with fine to medium gravels, light gray, dry, loose.
5					4.0'
	3525		NONE		Granite, gray with micas and feldspars.
10					9.0'
	3520				Granite, refusal at 9 feet bgs.
15					
	3515				
20					



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BORING LOG: TW-2008-13

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh, Armando Jimenez
START DATE/TIME: 08/15/2008 08:11 AM
FINISH DATE/TIME: 08/15/2008 08:53 AM

LATITUDE (NAD83): 955309.729
LONGITUDE (NAD83): 316288.483

TOP OF GROUND ELEVATION (NAVD88): 3567.06 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
			ML		Silt with sand and gravel, fine grained with fine gravels, yellowish brown, dry, loose.
				1.0'	Same with granodiorite gravels, moist.
5	3565		ML		
				7.5'	Gravel, gray, fine to medium grained, moist.
10	3560		GM		
				10.0'	Dark gray material with organic odor, silty clay consistency, very wet.
15	3555		ML		
				20.0'	Refusal at 20 feet bgs.
20	3550				



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BORING LOG: TW-2008-14

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh, Armando Jimenez
START DATE/TIME: 08/15/2008 01:30 PM
FINISH DATE/TIME: 08/15/2008 02:20 PM

LATITUDE (NAD83): 954460.323
LONGITUDE (NAD83): 316121.109

TOP OF GROUND ELEVATION (NAVD88): 3575.99 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3575		SM		Silty Sand with gravel, fine grained, yellowish brown (10yr 5/6), moist, loose.
5			NONE		Granodiorite refusal at 5.5 feet bgs.
	3570				
10					
	3565				
15					
	3560				
20					
	3555				



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BORING LOG: TW-2008-15

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Johnson Env'tl. Technologies
DRILLER: Scott Johnson
LOGGED BY: Kevin Walsh
START DATE/TIME: 08/28/2008 08:05 AM
FINISH DATE/TIME: 08/28/2008 08:43 AM

LATITUDE (NAD83): 952211.128
LONGITUDE (NAD83): 317265.272

TOP OF GROUND ELEVATION (NAVD88): 3665.14 feet A.S.L.

COMMENTS:

RIG TYPE: Geoprobe
DRILLING METHOD: Direct Push Technology (DPT)
SAMPLING METHOD: Macro Core with PVC Sleeve

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3665				
			SM		Silty Sand with gravel, fine grained with fine gravel, light yellowish brown (10yr 4/2), dry, loose, green staining.
5	3660		SM		4.0' Same, decomposed granite gravels, moist.
			SM		8.0' Silty Sand, dark grayish brown, fine grained, wet, loose.
10	3655		NONE		9.0' Granite, refusal at 10 feet bgs. 10.0'
15	3650				
20	3645				



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BORING LOG: MW-2008-01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 07/15/2008 10:40 AM
FINISH DATE/TIME: 07/17/2008 09:30 AM

LATITUDE (NAD83): 953432.425
LONGITUDE (NAD83): 320773.644

TOP OF GROUND ELEVATION (NAVD88): 3714.29 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3710	0-5			Ruby Star Granodiorite, reddish gray (5yr 5/2) and brown (5yr 5/4), equigranular quartz, potassium feldspar, plagioclase, hornblende.
10	3705	5-10			
15	3700	10-15			
15	3700	15-20		15.0'	Ruby Star Granodiorite, gray (10yr 5/1) with brown iron oxide (10yr 5/3) and yellow sulfides (10yr 7/6), equigranular quartz, potassium feldspar, plagioclase, hornblende, clay layer at 28 ft.
20	3695	20-25			
25	3690	25-30			
30	3685	30-35		30.0'	Ruby Star Granodiorite, light gray (2.5y 7/1), hornblende and biotite, abundant brownish yellow (10yr 6/8) iron oxide and sulfide staining.
35	3680	35-40			
40	3675	40-45			
45	3670	45-50			
50	3665	50-55			
55	3660	55-60		55.0'	Ruby Star Granodiorite, light gray (10yr 7/1), with 10% yellowish red (5yr 6/6) staining.
60	3655	60-65		60.0'	Ruby Star Granodiorite, light gray (2.5y 7/1), with 5% yellowish red (7.5yr 6/6) staining.
65	3650	65-70		65.0'	Ruby Star Granodiorite, light gray (2.5y 7/1), with 5% yellowish red (7.5yr 6/6) staining.
70	3645	70-75			
75	3640			75.0'	

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BORING LOG: MW-2008-01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 07/15/2008 10:40 AM
FINISH DATE/TIME: 07/17/2008 09:30 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
75-80	3635				Ruby Star Granodiorite, gray (5y 5/1), with 30% yellowish red (7.5yr 6/6) staining.
80-85	3630				Ruby Star Granodiorite, white (2.5y 2/8) matrix, with 85% yellow to yellowish brown (10yr 7/6 to 5/6), coarse texture up to 3/4 inch, some pyrite.
	3625				Ruby Star Granodiorite, gray (2.5y 6/1), with 10% brown (7.5yr 5/4) to yellow (10yr 7/6) staining.
	3620				Total depth = 86 feet bgs.
90	3615				
95	3610				
100	3605				
105	3600				
110	3595				
115	3590				
120	3585				
125	3580				
130	3575				
135	3570				
140	3565				
145	3560				
150	3555				



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BORING LOG: MW-2008-02

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 07/18/2008 10:20 AM
FINISH DATE/TIME: 07/23/2008 01:20 PM

LATITUDE (NAD83): 954402.759
LONGITUDE (NAD83): 320301.259

TOP OF GROUND ELEVATION (NAVD88): 3666.41 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS	
5	3665	0-5			Ruby Star Granodiorite, light gray (2.5y 7/1), equigranular quartz, potassium feldspar, plagioclase, hornblende, 5-20% yellowish red (5yr 5/6) staining (iron oxide), fine matrix.	
10	3660	5-10				
15	3655	10-15				
20	3650	15-20				
25	3645	20-25				
30	3640	25-30			20.0'	Ruby Star Granodiorite, brown (7.5yr 5/2) matrix, with 25% yellowish red to reddish yellow (5yr 5/6 / 7.5yr 6/6) staining, matrix clasts up to 1/2 inch.
35	3635	30-35				
40	3630	35-40				
45	3625	40-45				
50	3620	45-50			35.0'	Ruby Star Granodiorite, gray (10yr 6/1), with 10% reddish yellow (5yr 5/6) staining (iron oxide), pyrite common at 40-45 ft. bgs.
55	3615	50-55				
60	3610	55-60				
65	3605	60-64			50.0'	Ruby Star Granodiorite, gray (10yr 6/1), with 5-40% yellowish red (5yr 5/6) staining (iron oxide).
70	3600				64.0'	Total depth = 64 feet bgs.
75	3595					

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BORING LOG: MW-2008-03

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 07/25/2008 08:45 AM
FINISH DATE/TIME: 07/25/2008 07:20 AM

LATITUDE (NAD83): 954410.134
LONGITUDE (NAD83): 319781.86

TOP OF GROUND ELEVATION (NAVD88): 3658.97 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3655	0-5			Ruby Star Granodiorite, grayish brown (10yr 5/2), equigranular quartz, potassium feldspar, plagioclase, hornblende, 5-15% yellowish red to strong brown (5yr 5/6 to 7.5yr 6/6) staining (iron oxide).
10	3650	5-10			
15	3645	10-15			
20	3640	15-20			
25	3635	20-25			Ruby Star Granodiorite, gray (10yr 5/1), with 5-25% reddish yellow (7.5yr 6/6) staining (iron oxide), trace pyrite.
30	3630	25-30			
35	3625	30-35			
40	3620	35-40			
45	3615	40-45			Ruby Star Granodiorite, gray (7.5yr 6/1), with 50% yellowish brown (10yr 5/6) staining (iron oxide), stained fracture surfaces on larger rock fragments.
50	3610	45-50			Ruby Star Granodiorite, gray (10yr 6/1), with 5% brownish yellow (10yr 6/6) staining (iron oxide).
55	3605	50-55			Ruby Star Granodiorite, gray (10yr 6/1), with 50% yellowish red (5yr 5/6) staining (iron oxide).
60	3600	55-60			Ruby Star Granodiorite, gray (5yr 5/1), with 5-40% yellowish red (2.5yr 5/8) staining (iron oxide), note 1 inch clast with fracture filling (white).
65	3595	60-63			Total depth = 63 feet bgs.
70	3590				
75	3585				

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BORING LOG: MW-2008-04

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 07/26/2008 11:55 AM
FINISH DATE/TIME: 07/27/2008 11:00 AM

LATITUDE (NAD83): 954430.599
LONGITUDE (NAD83): 319467.415

TOP OF GROUND ELEVATION (NAVD88): 3649.76 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
0-5	3645				Ruby Star Granodiorite, gray (10yr 5/1), equiangular quartz, potassium feldspar, plagioclase, hornblende, with 60% reddish brown (5yr 5/4) staining (iron oxide).
5-10	3640				
10-15	3635				Ruby Star Granodiorite, gray (10yr 6/1), with 80-95% yellowish red (5yr 5/6) staining (iron oxide), larger clasts show fracture filling and stains, possible sericite (clayey white).
15-20	3630				
20-25	3625				
25-30	3620				
30-35	3615				
35-40	3610				Ruby Star Granodiorite, gray (10yr 6/1), with 10% brownish yellow (10yr 6/6) stained clasts (iron oxide), trace fracture staining on larger clasts.
40-45	3605				Ruby Star Granodiorite, gray (10yr 6/1), with 5-10% reddish yellow (7.5yr 6/6) stained clasts (iron oxide), trace fracture filling and stains, possible sericite (clayey white), trace pyrite.
45-50	3600				
50-55	3595				
55-60	3590				
60-64	3585				
					Total depth = 64.6 feet bgs.

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BORING LOG: MW-2008-05

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 07/28/2008 10:15 AM
FINISH DATE/TIME: 07/28/2008 02:15 PM

LATITUDE (NAD83): 954474.961
LONGITUDE (NAD83): 318319.787

TOP OF GROUND ELEVATION (NAVD88): 3606.48 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS	
5	3605	0-5	SM		Sand, light gray (10yr 7/1), fine to coarse grained, subrounded, 10% reddish colored grains, weathered biotite.	
10	3600	5-10				
15	3595	10-15				
20	3590	15-20				
25	3585	20-25				
30	3580	25-30				
35	3575	30-35				
40	3570	35-40				
45	3565	40-45				
50	3560	45-50				
55	3555	50-54			10.0'	Ruby Star Granodiorite, pinkish gray (7.5yr 6/2), with 5-20% yellowish red (5yr 5/8) staining (iron oxide), equigranular groundmass, medium grained, quartz potassium feldspar, plagioclase, biotite, trace pyrite.
60	3550				25.0'	Ruby Star Granodiorite, gray (10yr 5/1), with 40% yellowish red (5yr 5/8) to brownish yellow (10yr 6/8) staining (iron oxide).
65	3545				30.0'	Ruby Star Granodiorite, gray (10yr 5/1), with 10-20% yellowish red (5yr 5/6) to brownish yellow (10yr 6/8) staining, pyrite common, larger clasts have stained fractures, green alteration and filling on fractures.
70	3540				54.0'	Total depth = 54 feet bgs.
75	3535					



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BORING LOG: MW-2008-06

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 07/30/2008 08:45 AM
FINISH DATE/TIME: 07/31/2008 11:35 AM

LATITUDE (NAD83): 954282.22
LONGITUDE (NAD83): 318537.298

TOP OF GROUND ELEVATION (NAVD88): 3607.31 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS		
5	3605	0-5	SM		Silty Sand, grayish brown (10yr 5/2), fine to coarse grained, subangular, few clasts of granodiorite, loose, dry, decomposed granodiorite.		
10	3600	5-10					
15	3595	10-15					Ruby Star Granodiorite, gray (10yr 6/1), with 10% yellowish red (5yr 5/8) staining (iron oxide).
20	3590	15-20					Ruby Star Granodiorite, gray (10yr 7/1), with 40% yellowish red (5yr 5/6) to yellow (2.5y 7/6) stained clasts, trace white clay on fracture surfaces (sericite).
25	3585	20-25					Ruby Star Granodiorite, gray (10yr 5/1) with 15-30% brownish yellow (10yr 6/8) to yellowish red (5yr 4/6) staining (iron oxide), some green alteration on fracture surfaces, 1 inch of pale yellow clay (2.5y 7/3) or sericite at approximately 40 feet.
30	3580	25-30					
35	3575	30-35					
40	3570	35-40					
45	3565	40-42					
42.0'					Total depth = 42 feet bgs.		
50	3560						
55	3555						
60	3550						
65	3545						
70	3540						
75	3535						

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BORING LOG: MW-2008-07

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/06/2008 10:20 AM
FINISH DATE/TIME: 08/06/2008 02:55 PM

LATITUDE (NAD83): 954175.809
LONGITUDE (NAD83): 316711.543

TOP OF GROUND ELEVATION (NAVD88): 3602.64 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
0-5	3600	0-5	GC		Clayey Gravel with sand, light brown (7.5yr 6/4), angular, fine grained.
5-10	3595	5-10	GC		
10-15	3590	10-15	SC		Sand, reddish brown (5yr 5/4), fine to coarse, angular to subangular with trace clay, yellowish red grains, pale brown matrix (10yr 5/3), transitioning into a quartz monzonite.
15-20	3585	15-20	SC		
20-25	3580	20-25	SC		
25-30	3575	25-30	SC		
30-35	3570	30-35	SC		Sand with disintegrated monzonite, light brown (7.5yr 6/4), fine to coarse grained, yellowish to red (5yr 5/8) feldspar grains.
35-40	3565	35-40	SC		
40-45	3560	40-45	SC		
45-50	3555	45-50	SC		Quartz Monzonite, dark yellowish brown, fine to coarse grained, with prevalent yellowish brown staining, trace clay and gypsum minerals.
50-52	3550	50-52	SC		
					Total depth = 52 feet bgs.

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BORING LOG: MW-2008-08

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/07/2008 12:20 PM
FINISH DATE/TIME: 08/08/2008 02:30 PM

LATITUDE (NAD83): 955301.571
LONGITUDE (NAD83): 316285.924

TOP OF GROUND ELEVATION (NAVD88): 3566.59 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3565	0-5	GW		Gravel, angular, brown (7.5yr 5/4), with some yellow stained granodiorite with some dark red stained (iron oxide) fragments, trace pyrite.
10	3560	5-10	GW		Well Graded Gravel with sand (GW), brown (7.5yr 5/4), fine to coarse with clasts up to 1.5 inches, 50% staining (iron oxide) red (2.5YR 5/6) to yellow (10YR 7/8), angular.
15	3555	10-15	GW		Well Graded Gravel (GW), coarse with clasts up to 2.5 inches, 90% granodiorite with 10% yellow (10yr 7/6) to red (10yr 4/6) staining (iron oxide), with some sand and gravel (andesite & granodiorite) fragments from 25-29 feet, apparent fill material.
20	3550	15-20	GW		
25	3545	20-25	GW		
30	3540	25-30	GW		
35	3535	30-35			Ruby Star Granodiorite, gray (10yr 5/1), with 5% yellowish red (5yr 5/6) staining (iron oxide), fine to coarse groundmass up to 0.75 inch, quartz, potassium feldspar, plagioclase.
40	3530	35-40			
45	3525	40-45			
50	3520	45-48			Ruby Star Granodiorite, gray (10yr 5/1), with 5% yellowish red (5yr 5/6) staining on clasts up to 0.75 inch, 20% greenish gray (5gy 6/1), some pyrite.
55	3515				Total depth = 48 feet bgs.
60	3510				
65	3505				
70	3500				
75	3495				

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BORING LOG: MW-2008-09

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/10/2008 08:05 AM
FINISH DATE/TIME: 08/10/2008 10:00 AM

LATITUDE (NAD83): 953712.046
LONGITUDE (NAD83): 316297.744

TOP OF GROUND ELEVATION (NAVD88): 3616.46 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS	
5	3615	0-5			Gravelly fill leading to a mixture of granodiorite and quartz monzonite, mafics yellowish red (5yr 4/6) with prominent red staining.	
10	3610	5-10				
15	3605	10-15				
20	3600	15-20				
25	3595	20-25				20.0'
30	3590	25-30			Sand with crushed granodiorite, fine to coarse, no staining, feldspar clasts.	
35	3585	30-35				
40	3580	35-40				
45	3575	40-45				
50	3570	45-50				45.0'
55	3565	50-52			Gray matrix with prominent yellowish red feldspar, trace staining, trace pyrite veins.	
60	3560					52.0'
65	3555					Total depth = 52 feet bgs.
70	3550					
75	3545					

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BORING LOG: MW-2008-10

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/11/2008 01:55 PM
FINISH DATE/TIME: 08/12/2008 10:00 AM

LATITUDE (NAD83): 954147.514
LONGITUDE (NAD83): 315919.267

TOP OF GROUND ELEVATION (NAVD88): 3601.77 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS	
5	3600	0-5			Granodiorite, gray matrix (10yr 5/1) with stained grains of reddish yellow (7.5yr 6/6) to yellowish red (5y 5/8). Dissentegrated granodiorite.	
10	3595	5-10			10.0'	Granodiorite, 40% gray matrix (10yr 6/1) with 60% stained grains and clasts of granodiorite, tiny trace of white clay, staining prominent.
15	3590	10-15				
20	3585	15-20				
25	3580	20-25				
30	3575	25-30				
35	3570	30-35			30.0'	Granodiorite with a 3/4 inch stained fracture.
40	3565	35-40			35.0'	Granodiorite, gray (10yr 6/1) with yellowish brown staining, coarse sand clasts.
45	3560	40-45				
50	3555	45-50				
55	3550	50-55		52.0'	Total depth = 52 feet bgs.	
60	3545					
65	3540					
70	3535					
75	3530					

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BORING LOG: MW-2008-11

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/12/2008 01:45 PM
FINISH DATE/TIME: 08/13/2008 10:00 AM

LATITUDE (NAD83): 952219.511
LONGITUDE (NAD83): 317271.232

TOP OF GROUND ELEVATION (NAVD88): 3664.77 feet A.S.L.

COMMENTS: Composite, unwashed samples, obtained on 5 foot intervals from rig cyclone.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: Cuttings, 5 ft. composite.

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS	
5	3660	0-5			Clayey Gravel/fill, yellowish brown (2.5yr 6/4) with a mixture of clays and fill. Stained grains and coarse gravel prevalent.	
10	3655	5-10			20.0'	
15	3650	10-15				
20	3645	15-20				Granodiorite. Gray matrix (10yr 5/1) with brownish yellow stained grains (10yr 6/6) with fractures throughout the entire section to the bottom.
25	3640	20-25				
30	3635	25-30				
35	3630	30-35				
40	3625	35-40				
45	3620	40-45				
50	3615	45-50				
55	3610	50-52				52.0'
60	3605					Total depth = 52 feet bgs.
65	3600					
70	3595					
75	3590					



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BORING LOG: MW-2008-12

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/21/2008 09:30 AM
FINISH DATE/TIME: 08/22/2008 03:30 PM

LATITUDE (NAD83): 953075.271
LONGITUDE (NAD83): 324000.981

TOP OF GROUND ELEVATION (NAVD88): 3775.45 feet A.S.L.

COMMENTS: HQ core to 70 ft. bgs; ARCH 70 to 155.7 ft. bgs, cuttings on 5 ft. intervals.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: HQ Core and Cuttings

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DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3775	0-3			Weathered granodiorite with a clayey matrix, yellowish brown (10yr 5/6).
5	3770	3-7			Granodiorite, competent, two medium angle stained fractures; 5.7-7 feet weathered, incompetent, yellowish red (5yr 5/6), recovery = 75%.
10	3765	7-12			Granodiorite, 40% competent, 60% weathered yellowish red (5yr 5/8), friable, 5 low to medium angle fractures, stained, recovery = 70%.
15	3760	12-17			Granodiorite, 80% competent, 20% weathered, stained yellowish red (5yr 5/8), friable, 9-10 medium to high angle fractures, recovery = 80%.
20	3755	17-22			Granodiorite, 50% competent, 7 medium angle fractures, stained weathered; 50% weathered, friable, stained red (2.5yr 4/6) grading to yellow (10yr 7/6), clayey, recovery = 72%.
25	3750	22-27			Granodiorite, 80% competent, 8-10 medium to high angle fractures stained yellowish red (5yr 4/6); 20% weathered, friable, some staining, fresh plant roots at 25 feet bgs, recovery = 85%.
30	3745	27-32			Granodiorite, 90% competent, 6-8 medium angle fractures and 1 high angle, all stained yellowish red (5yr 4/6); 10% weathered, friable, some staining, recovery = 92%.
35	3740	32-37			Granodiorite, 95% competent, 5-7 low to medium angle fractures stained yellowish red to dark reddish brown (5yr 3/3); 5% weathered, friable, prominent pyrite at 37' bgs, recovery = 100%.
40	3735	37-42			Granodiorite, 100% competent, 3-4 medium angle fractures, stained, 1-2mm veins of pyrite at 38.6 to 40.2 ft. bgs, pyrite disseminated throughout, recovery = 100%.
45	3730	42-47			Granodiorite, 100% competent, 4 low to medium angle fractures, stained and mineralized, pyrite and less chalcopyrite, recovery = 100%.
50	3725	47-52			Granodiorite, 100% competent, 3-4 medium angle fractures commonly mineralized with pyrite, notable at 48 feet bgs, possible trace molybdenite, recovery = 100%.
55	3720	52-57			Granodiorite, 100% competent, 2 veins filled with quartz and green epidote centered in vein, pyrite disseminated throughout, recovery = 100%.
60	3715	57-62			Granodiorite, 100% competent, 7 flat to high angle veins filled with quartz and green epidote, some fractures mineralized with pyrite, recovery = 100%.
65	3710	62-67			Granodiorite, 100% competent, significant increase in potassium feldspar, decreased biotite, pyrite disseminated throughout, recovery = 100%.
70	3705	67-70			As above, recovery = 100%, end of core.
75		70-75			Granodiorite, greenish gray (5gy 6/1), secondary fracture filling (green), hard rock.



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BORING LOG: MW-2008-12

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/21/2008 09:30 AM
FINISH DATE/TIME: 08/22/2008 03:30 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3700	75-80			
85	3695	80-85			
90	3690	85-90			
95	3685	90-95			
100	3680	95-100			
105	3675				
110	3670	105-110			105.0' Granodiorite, 50% greenish gray (5gy 5/1), grading to 50% weak red (5yr 5/6) altered feldspar with clay.
115	3665	110-115			
120	3660	115-120			
125	3655	120-125			
130	3650	125-130			125.0' Granodiorite, 75% greenish gray, 20% weak red, 5% very dark green to black, possible copper, trace iron staining and altered feldspar.
135	3645	130-135			132.0' Granodiorite, 100% gray (10yr 5/1), abundant disseminated pyrite, trace iron oxide staining.
140	3640	135-140			
145	3635	140-145			
150	3630	145-150			145.0' Granodiorite, 65-80% gray, 13-30% greenish gray (5gy 5/1), 5% iron oxide stained clasts, yellowish red, pyrite.
155	3625	150-155.7			
160	3620				155.7' Total depth = 155.7 feet bgs.
	3615				



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BORING LOG: MW-2008-13

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/23/2008 07:40 AM
FINISH DATE/TIME: 08/24/2008 12:00 PM

LATITUDE (NAD83): 955094.896
LONGITUDE (NAD83): 322742.608

TOP OF GROUND ELEVATION (NAVD88): 3723.77 feet A.S.L.

COMMENTS: HQ core to 70 ft. bgs; ARCH 70 to 102 ft. bgs, cuttings on 5 ft. intervals.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: HQ Core and Cuttings

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
		0-3			Drilled with tricone bit.
5	3720	3-7		3.0'	Granodiorite, yellowish brown (10yr 5/4), highly weathered, abundant clay, recovery = 90%.
10	3715	7-12		7.0'	Granodiorite, 60% weathered, 40% highly weathered, friable, stained yellowish red (5yr 5/8), 2-3 fractures, stained, white matrix, recovery = 96%.
15	3710	12-17		12.0'	Granodiorite, 5% competent, 95% weathered, friable, soft, white, recovery = 52%.
20	3705	17-22		17.0'	Granodiorite, 70% weathered, high angle fractures, stained, granitic intrusion (green), 30% highly weathered, recovery = 98%.
25	3700	22-27		22.0'	Granodiorite, 100% competent, 7-8 high angle fractures, stained, trace pyrite, recovery = 100%.
30	3695	27-32		27.0'	Granodiorite, 100% competent, 2 high angle and 2 low angle fractures, stained, pyrite throughout, recovery = 100%.
35	3690	32-37		32.0'	Granodiorite, 100% competent, 2 high angle and 2 low angle fractures with moderate iron oxide staining, pyrite throughout, recovery = 98%.
40	3685	37-42		37.0'	Granodiorite, 100% competent, 2 high angle and 4 low angle fractures, 1 inch of plagioclase at 40.5 ft., recovery = 100%.
45	3680	42-47		42.0'	Granodiorite, 100% competent, 3-4 high angle and low angle fractures, stained, pyrite throughout, recovery = 100%.
50	3675	47-52		47.0'	Granodiorite 99%, trace pink granite (0.2 ft.), 4 high angle fractures filled with 50 ft. (calcite), white, recovery = 100%.
55	3670	52-57		52.0'	Granodiorite, 100% competent, 4 medium to low angle fractures, 1 mineralized with pyrite, some noticeable veins of epidote, pyrite throughout, recovery - 100%.
60	3665	57-62		57.0'	Granodiorite, 100% competent, 2 high angle fractures (calcite filled), intrusions of epidote and granite above and below fractures, recovery = 100%.
65	3660	62-67		62.0'	Granodiorite, 2 low to medium angle fractures (calcite filled), pyrite and chalcopryrite throughout, recovery = 100%.
70	3655	67-70		67.0'	Granodiorite, 100% competent, 1 high angle (calcite filled) fracture, pyrite and chalcopryrite throughout, recovery = 100%.
75	3650	70-75		70.0'	Granodiorite, light gray to gray, pyrite in veins and matrix, 1-5% staining on fractures, yellowish red (7.5yr 6/6), trace epidote (green) in veins.

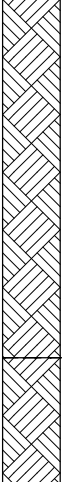


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BORING LOG: MW-2008-13

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/23/2008 07:40 AM
FINISH DATE/TIME: 08/24/2008 12:00 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3645	75-80			
85	3640	80-85			
90	3635	85-90			
95	3630	90-95			
100	3625	95-100			Granodiorite, 70% competent, 30% stained fractures and grains ranging brownish yellow (10yr 6/6) to yellow (10yr 7-8/6), pyrite in veins and matrix.
105	3620				Total depth = 102 feet bgs.
110	3615				
115	3610				
120	3605				
125	3600				
130	3595				
135	3590				
140	3585				
145	3580				
150	3575				
155	3570				
160	3565				



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BORING LOG: MW-2008-14

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/24/2008 08:15 AM
FINISH DATE/TIME: 08/27/2008 01:45 PM

LATITUDE (NAD83): 938790.044
LONGITUDE (NAD83): 306746.643

TOP OF GROUND ELEVATION (NAVD88): 3575.99 feet A.S.L.

COMMENTS: HQ core to 170 ft. bgs, cuttings on 5 ft. intervals.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: HQ Core and Cuttings

REPORT TUSCON-ENVIRONMENTAL_SIERRITA_VRP_MUL_PG | PROJECT S:\GINT\BWRRES\GINT\PROJECT\TUSCON\FMI SIERRITA_VRP BORING LOGS.GPJ | LIBRARY\URS TUCSON\4.1.GLB | PRINTED 11/21/12

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
0	3575	0-8	SM		Alluvial gravel and sand, drilled with tricone bit.
5	3570	8-12		8.0'	Sandstone, pink (7.5yr 7/3), fine grained, weak to moderate cementation, 90% quartz, 10% mafics, rounded, grades to yellowish brown (5yr 5/4), recovery = 68%, lithic fragments at 11 ft.
10	3565	12-17		12.0'	Sandstone, light brown (7.5yr 6/3), fine grained, strong cementation, recovery = 100%.
15	3560	17-22		17.0'	Sandstone, 40% fine to medium sand, 10% brown clay, 50% lithic fragments, recovery = 100%.
20	3555	22-27		22.0'	Sandstone, brown (10yr 5/3), as above, some strong cementation, lithic fragments, recovery = 100%.
25	3550	27-32		27.0'	Sandstone, 40% fine to medium sand, 10% brown clay, 50% lithic fragments, recovery = 100%.
30	3545	32-37		32.0'	As above, Recovery 100%.
35	3540	37-42		37.0'	As above, strong concentration, recovery = 100%.
40	3535	42-47		42.0'	Sandstone, fine to medium sand, rhyolite and granodiorite cobbles, gravel, mafics, recovery = 100%.
45	3530	47-52		47.0'	As above, recovery = 100%.
50	3525	52-57		52.0'	Sandstone, brown (10yr 5/3), fine to coarse sand, rounded, gravel to cobble sized lithic fragments, well cemented, recovery = 100%.
55	3520	57-62		57.0'	Sandstone, as above, moderate cementation, gypsum vein at 60.8 ft., no lithic fragments, recovery = 100%.
60	3515	62-67		62.0'	Sandstone, pink (7.5yr 7/3), as above, recovery = 100%.
65	3510	67-72		67.0'	Sandstone, brown (7.5yr 5/4), fine to coarse sand, rounded, abundant cobble-sized lithic fragments (mafic), angular, recovery = 100%.
70	3505	72-77		72.0'	Sandstone, as above.
75					




















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BORING LOG: MW-2008-14

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/24/2008 08:15 AM
FINISH DATE/TIME: 08/27/2008 01:45 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3500	77-82			77.0' Sandstone, light brown (7.5yr 6/3), as above.
85	3495	82-87			82.0' Sandstone, light brown (7.5yr 6/3), fine to coarse sand, rounded, lithic fragments absent 83-86 ft., below 86 ft. color is reddish brown (5yr 5/4), abundant lithic fragments, recovery = 100%.
90	3490	87-92			87.0' Sandstone, as above.
95	3485	92-97			92.0' Sandstone, light reddish brown (5yr 6/3) to reddish gray (5yr 5/2), fine to coarse sand, gravel to cobble-sized lithic fragments, calcareous halo on bottom of lithics, recovery = 100%.
100	3480	97-102			97.0' Sandstone, as above, recovery = 100%.
105	3475	102-107			102.0' Sandstone, as above, recovery = 100%.
110	3470	107-112			107.0' Sandstone, as above, recovery = 100%.
115	3465	112-117			112.0' Sandstone, as above, recovery = 100%
120	3460	117-122			117.0' Sandstone, as above, weak cementation, recovery = 100%.
125	3455	122-127			122.0' Sandstone, as above, possible water bearing zone 125-126.3 ft., loose, recovery = 100%.
130	3450	127-132			127.0' Sandstone, light brown (7.5yr 6/3), fine grained; layered sandstone, brown (7.5yr 5/3), coarse grained, angular lithic (mafic) fragments.
135	3445	132-137			132.0' Sandstone, as above, recovery = 100%.
140	3440	137-142			137.0' Sandstone, light reddish brown (5yr 6/3) grades to reddish brown (5yr 4/3), few lithic fragments, moderate to strong cementation, recovery = 100%.
145	3435	142-147			142.0' Sandstone, brown (7.5 yr 4/3), weak cementation, recovery = 100%.
150	3430	147-152			147.0' Sandstone, brown (7.5yr 4/3), at 150 ft. strong cementation with lithic (mafic) fragments, recovery = 46%.
155	3425	152-157			152.0' Sandstone, as above, weak cementation, recovery = 100%.
160	3420	157-162			157.0' Sandstone, light reddish brown (5yr 6/3), fine-medium grained, well rounded, weak to moderate layered cementation, angular lithic fragments, mostly mafic,



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BORING LOG: MW-2008-14

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 08/24/2008 08:15 AM
FINISH DATE/TIME: 08/27/2008 01:45 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3415				
165	3410	162-167			162.0' recovery = 100%. Sandstone, reddish brown (5yr 5/3), fine-medium sand, well rounded, moderate cementation, lithic fragments absent, recovery = 100%.
170	3405	167-170			167.0' Sandstone, as above, recovery = 100%. Total depth 170 ft.
175	3400				170.0' Total depth 170 feet bgs.
180	3395				
185	3390				
190	3385				
195	3380				
200	3375				
205	3370				
210	3365				
215	3360				
220	3355				
225	3350				
230	3345				
235	3340				
240	3335				
245	3330				



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BORING LOG: MW-2008-15

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 09/10/2008 12:55 PM
FINISH DATE/TIME: 09/11/2008 02:00 PM

LATITUDE (NAD83): 935031.333
LONGITUDE (NAD83): 310794.238

TOP OF GROUND ELEVATION (NAVD88): 4172.52 feet A.S.L.

COMMENTS: HQ core to 69.2 ft., overdrill to 110'.

RIG TYPE: Speedstar 50K
DRILLING METHOD: ARCH
SAMPLING METHOD: HQ Core

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DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
		0-2			Surface Soils
5	4170	2-7		2.0'	Harris Ranch Quartz Monzonite (QM), yellowish brown (10YR 5/14), highly weathered, highly fractured (low angle), black to yellowish red (5YR 5/16), plant roots at 5.5', Recovery = 80%.
10	4165	7-12		7.0'	Harris Ranch QM, light brownish gray (2.5Y 6/2), groundmass contains green mineral with biotite on plagioclase, light reddish brown to reddish brown (5YR 6/3-5/3), numerous high angle and low angle fractures, stained, Recovery = 80%.
15	4160	12-17		12.0'	Harris Ranch QM, as above, Recovery = 92%.
20	4155	17-22		17.0'	Harris Ranch QM, as above, Recovery = 58%.
25	4150	22-27		22.0'	Harris Ranch QM, gray (NG), pink feldspar absent, dense high and low angle features, stained, some pyrite, Recovery = 100%.
30	4145	27-32		27.0'	Harris Ranch QM, gray and green to weak red (10R 4/3), few fractures, Recovery = 96%.
35	4140	32-37		32.0'	Harris Ranch QM, As Above, Recovery = 100%.
40	4135	37-41		37.0'	Harris Ranch QM, 3-4 pyrite filled veins, 2-3 high angle fractures with soft green sericite, Recovery = 100%.
45	4130	41-46.3		41.0'	Harris Ranch QM, As Above, hard drilling, dense fracturing, Recovery = 100%.
50	4125	46.3-51.5		46.3'	Harris Ranch QM, As Above, at 50' distant slickenside at 60 degrees with pyrite above, fractured, with sericite, Recovery = 100%.
55	4120	51.5-54		51.5'	Harris Ranch QM, As Above, Recovery = 100%.
60	4115	54-57		54.0'	Harris Ranch QM, As Above, Recovery = 100%.
65	4110	57-62		57.0'	Harris Ranch QM, moderate fracturing, sericite coated, 2 slickensides at 57' and 62', Recovery = 100%.
70	4105	62-67		62.0'	Harris Ranch QM, gray (NS), wet, and light gray, abundant pyrite, common low, medium, and high angle fractures, with sericite, Recovery = 100%.
		67-69.2		67.0'	Harris Ranch QM, As Above, Recovery = 73%
				69.2'	No recovery
75	4100				



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BORING LOG: MW-2008-15

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Mike Stockton
LOGGED BY: Mark Sollman
START DATE/TIME: 09/10/2008 12:55 PM
FINISH DATE/TIME: 09/11/2008 02:00 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	4095				No recovery
	4090				
85	4085				
90	4080				
95	4075				
100	4070				
105	4065				
110	4060				
115	4055				
120	4050				
125	4045				
130	4040				Total Depth = 110 feet bgs
135	4035				
140	4030				
145	4025				
150	4020				
155	4015				
160					



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**BORING LOG: ST-SB03
(PZ-2008-20)**

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/02/2008 12:00 AM
FINISH DATE/TIME: 10/03/2008 12:00 AM

LATITUDE (NAD83): 971866.376
LONGITUDE (NAD83): 313810.996

TOP OF GROUND ELEVATION (NAVD88): 3531.59 feet A.S.L.

COMMENTS: Soil boring covered to PZ-2008-20.

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3530	ST-SB03-4-5.5	CL-ML		Interbedded sandy silt, light olive gray (5y 6/2), very fine to fine sand, slight to low plasticity, slightly moist, soft and thin 1/8 - 1/2" clayey silt, dark gray, moist, high plasticity and layers of coarser/finer sand.
10	3525	ST-SB03-9-10.5			
15	3520	ST-SB03-14-15.5			
20	3515	ST-SB03-19-20.5			
25	3510	ST-SB03-24-25.5			
30	3505	ST-SB03-29-30.5			
35	3500	ST-SB03-34-35.5			
40	3495	ST-SB03-39-40.5			
45	3490	ST-SB03-44-45.5			
50	3485	ST-SB03-49-50.5			
55	3480	ST-SB03-54-55.5			
60	3475	ST-SB03-59-60.5			
65	3470	ST-SB03-64-65.5			
70	3465	ST-SB03-69-70.5			
75	3460	ST-SB03-74-75.5			

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BORING LOG: ST-SB03
(PZ-2008-20)

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/02/2008 12:00 AM
FINISH DATE/TIME: 10/03/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3455	ST-SB03-79-80.5			3" layers of hard well compacted silty sand, slightly moist.
85	3450	ST-SB03-84-85.5			2" layer containing Fe staining.
90	3445	ST-SB03-89-90.5			Clayey Silt layers, gray (5y 5/1) and sandy silt layer, light gray (5y/7/1), very moist to wet.
95	3440	ST-SB03-94-95.5			Grades wet. Water level at 97.17 feet bgs.
100	3435	ST-SB03-99-100.5			
105	3430	ST-SB03-104-105.5			Layers of clayey silt, dark gray, very moist to wet, and 4-6" layers sandy silt, fine sand, gray (5y 6/1) soft and 1 - 2" sandy clay layers, very fine sand and darker gray (5y 6/1), ranging to light olive gray (5y 6/2).
110	3425	ST-SB03-109-110.5			
115	3420	ST-SB03-114-115.5			
120	3415	ST-SB03-119-120.5			
125	3410	ST-SB03-124-125.5			Moist to very moist.
130	3405	ST-SB03-129-130.5	CL-ML		Clayey layers, dark gray (2.5y 4/1), sandy layers, gray (2.5y 6/1) with sharp layer contact.
135	3400	ST-SB03-134-135.5			
140	3395	ST-SB03-139-140.5			Grades moist, mostly silty sand, fine sand, with no clay layers.
145	3390	ST-SB03-144-145.5			Sand Silt, olive gray (5y 5/2) interlaced with gray clayey layers.
150	3385	ST-SB03-149-150.5			Spoon sampler is dripping wet. Sandy and clayey layers range from light olive gray (5y 6/2) to gray (5y 5/1), sandy layers are medium stiff, clayey layers are soft.
155	3380	ST-SB03-154-155.5			
160	3375	ST-SB03-159-160.5			



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BORING LOG: ST-SB03
(PZ-2008-20)

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/02/2008 12:00 AM
FINISH DATE/TIME: 10/03/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
165	3370	ST-SB03-164-165.5			Sandy Silt, dark gray (2.5y 4/1), very fine to fine grained, medium stiff, non-plastic, moist.
170	3365	ST-SB03-169-170.5			
175	3360	ST-SB03-174-175.5	CL		2" layer of sandy silt, only very fine sand.
180	3355	ST-SB03-179-180.5			Grades gray (2.5y 5/1).
185	3350	ST-SB03-184-185.5			
190	3345	ST-SB03-189-190.5	SM		Native Soil - Silty Sand, dark brown (7.5yr 3/2), fine to coarse sand, loose, very slightly moist with fine gravel and apparent organic matter.
195	3340	ST-SB03-194-195.5			
200	3335	ST-SB03-199-200.5			Clay, fine to coarse gravel, grades to strong brown (7.5yr 4/6) and no organic matter, grades moist, hard with caliche between grains. Grades strong brown (7.5yr 5/6) with clay, medium to high plasticity, grades yellowish red (5yr 5/6) and very stiff.
205	3330	ST-SB03-204-205.5	CL		
210	3325	ST-SB03-209-210.5			
215	3320				Total depth = 210.5 feet bgs.
220	3315				
225	3310				
230	3305				
235	3300				
240	3295				
245	3290				



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**BORING LOG: ST-SB04
(PZ-2008-19)**

SHEET 1 of 2

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/05/2008 12:00 AM
FINISH DATE/TIME: 10/06/2008 12:00 AM

LATITUDE (NAD83): 968755.909
LONGITUDE (NAD83): 315237.456

TOP OF GROUND ELEVATION (NAVD88): 3533.83 feet A.S.L.

COMMENTS: Soil boring covered to PZ-2008-19.

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3530	ST-SB04-4-5.5	CL-ML		Silty Sand, gray (5y 5/1), very fine to fine sand, loose, soft, moist with two thin 1/4" layers of slightly darker gray silty clay, very soft, medium plasticity.
10	3525	ST-SB04-9-10.5			Layer of silty sand, trace disseminated pyrite, dark gray with greenish tint.
15	3520	ST-SB04-14-15.5			2" layer silty sand, fine to medium sand, olive gray (5y 5/2) and clayey sand, gray (5/1), very fine sand.
20	3515	ST-SB04-19-20.5			
25	3510	ST-SB04-24-25.5			Layering changes nearly every inch between sandy to clayey layers.
30	3505	ST-SB04-29-30.5			Olive gray sandy layers are medium stiff, clayey layers are soft.
35	3500	ST-SB04-34-35.5			Rare thin 1/2" layer of light gray silt, possible eolian deposition.
40	3495	ST-SB04-39-40.5			Rare 3/8" thin light gray to white layer of weakly cemented silt, possible crust layer.
45	3490	ST-SB04-44-45.5			Grades to light olive gray (5y 6/2).
50	3485	ST-SB04-49-50.5			6" layer silty sand, gray (2.5y 6/1), fine sand, 3" layer silty sand, very fine sand, dark gray (5y 4/1) and 1/8" layer clayey silt, light gray.
55	3480	ST-SB04-54-55.5	SM-CL		Thin 1" saturated zone of fine sand overlying 3/8" clay layer, otherwise moist only.
60	3475	ST-SB04-59-60.5			
65	3470	ST-SB04-64-65.5			5" layer of sand, no silt or clay, light brownish gray (2.5y 6/2) fine to medium, underlain by 3" layer of clay, gray (2.5y 5/1), medium to high plasticity.
70	3465	ST-SB04-69-70.5			
75	3460	ST-SB04-74-75.5			Silty Sand, gray (2.5y 5/1), very fine to fine sand, separated in layers 2-4" thick, with layers 1/4 - 2" layers of silty clay, very fine disseminated pyrite persists.

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**BORING LOG: ST-SB04
(PZ-2008-19)**

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/05/2008 12:00 AM
FINISH DATE/TIME: 10/06/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3455	ST-SB04-79-80.5			Silty Sand, grades lighter gray (5y 6.1) with slight greenish tint, fine.
85	3450	ST-SB04-84-85.5			Silty Sand, gray (5y 6/1), very fine, layers above and below 4" fine light olive gray layer of fine sand.
90	3445	ST-SB04-89-90.5			1/8" layer of concentrated pyrite, silty sand, dark gray above the silty sand and light gray below the silty sand.
95	3440	ST-SB04-94-95.5			Silty Sand, light olive gray and gray (5y 5/1) very fine, moist, and 2" sand, fine to medium sand, wet, overlaying clayey silt, gray.
100	3435	ST-SB04-99-100.5	SM-CL		8" layer fine to medium sand, saturated, overlaying silty clay, dark gray, grades olive gray (5y 5/2) for all sediments.
105	3430	ST-SB04-104-105.5			
110	3425	ST-SB04-109-110.5			Grades gray (5y 5/1).
115	3420	ST-SB04-114-115.5			
120	3415	ST-SB04-119-120.5			Silty Sand, dark gray (2.5y 4/1) very fine sand, soft to medium stiff, non-plastic, moist with 3/4" silty clay, high plasticity.
125	3410	ST-SB04-124-125.5			Native at 122 feet bgs, gravelly clay with fine to coarse sand, strong brown (7.5yr 5/6), hard, loose, medium to high plasticity, gravel fine to coarse, gravels up to 2". Trace caliche and gypsum.
130	3405	ST-SB04-129-130.5			
135	3400	ST-SB04-134-135.5	CL		Grades very stiff and strong brown (7.5yr 4/6).
140	3395	ST-SB04-139-140.5			Broken gravel clast in spoon sampler indicates gravel larger than 2".
145	3390	ST-SB04-144-145.5			Grades very stiff to hard.
150	3385				Total depth = 145.5 feet bgs.
155	3380				
160	3375				



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**BORING LOG: ST-SB05
(PZ-2008-16)**

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

LATITUDE (NAD83): 973697.599
LONGITUDE (NAD83): 308441.899

TOP OF GROUND ELEVATION (NAVD88): 3541.25 feet A.S.L.

COMMENTS: Soil boring covered to PZ-2008-16.

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Auto Hammer, Split Spoon/SPT and GUS Sam

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3540				Sandy Silt, very soft, gray (2.5y 6/1) non-plastic, very fine to fine sand, moist.
10	3535	ST-SB05-9-11 GUS ST-SB05-11-12.5			
15	3530				
20	3525	ST-SB05-19-21 Gus ST-SB05-21-22.5			
25	3520				
30	3515	ST-SB05-30-31.5			Sandy Silt, dark gray (2.5y 4/1) very soft non-plastic, very fine sand, very moist, 1" layer of silty clay, high plasticity, underlain by sandy silt, gray (2.5y 6/1).
35	3510		ML		
40	3505	ST-SB05-39-41 Gus ST-SB05-41-42.5			1 - 4" layers sandy silt, light gray (5y 7/2) and gray (5y 6/1) lighter gray, slightly coarse grain.
45	3500				
50	3495				
55	3490				
60	3485	ST-SB05-60-61.5			Sandy Silt, light gray to gray (5y 6/1), soft, non-plastic, moist and two 1/2" layers of clayey silt, darker gray (5y 7/1), medium plasticity.
65	3480				
70	3475				
75	3470				



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**BORING LOG: ST-SB05
(PZ-2008-16)**

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3465	ST-SB05-79-81 Gus	ML		Sandy Silt, light gray (5y 7/1) soft, moist, no clay layers.
	3460	ST-SB05-81-82.5			
85	3455				
90	3450	ST-SB05-89-91 Gus			3" layer of sandy silt, very fine to fine sand, gray (5y 5/1) with trace clay and slightly plastic overlain 1" layer of sandy silt, light gray, non-plastic, overlying layers ranging form 1/2 to 2" of same material.
	3450	ST-SB05-91-92.5			
95	3445				
100	3440	ST-SB05-99-101 Gus			
	3440	ST-SB05-101-102.5			2" layer of Clayey Silt, dark gray (5Y 3/1), very moist, medium plasticity, overlying 1/2 - 3" sandy silt, medium stiff, moist, ranging from gray (5y 5/1) to dark gray (5y 4/1), bottom 2" are sandy silt, very fine to fine sand, light olive gray (5y 6/2).
105	3435				
110	3430				
115	3425				
120	3420	ST-SB05-119-120.5	4" layer of Sandy Silt, dark gray (5y 4/1), moist, non-elasticity, overlying 8" sandy silt, very fine to fine sand, light olive gray (5y 6/2), stiff, 2" layer sandy silt, very dark gray (5y 3/1), very stiff, very fine sand.		
125	3415				
130	3410				
135	3405				
140	3400	ST-SB05-139-141 Gus	6" layer of Sandy Silt, olive gray (5y 5/2), fine to medium subangular, stiff, moist, 4" layer sandy silt, dark gray (2.5y 4/1) very fine sand, 5" layer sandy silt, very fine to fine sand, gray (2.5y 5/1). 3" layer clayey silt, gray (2.5y 6/1), low to medium plasticity, very stiff.		
	3400	ST-SB05-141-142.5			
145	3395				
150	3390				
155	3385				
160		ST-SB05-159-161 Gus	9" layer sandy silt, fine sand, 3" layer clayey silt, gray (10yr 5/1), slightly		



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**BORING LOG: ST-SB05
(PZ-2008-16)**

SHEET 3 of 4

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
165	3380	ST-SB05-161-162.5	ML		moist, very stiff, 6" layer sandy silt with trace clay, gray (5y 5/1), slight plasticity, stiff.
170	3375				
175	3370				
180	3365				
185	3360				
185	3355	ST-SB05-185.5-187	SM		185.0' Sandy Silt, fine sand, dark gray (2.5y 4/1) medium dense, non-plastic, moist. Layered 3" fine sands and 3" silts throughout the 17" sample.
190	3350	ST-SB05-189-191 Gus			
195	3345				
200	3340	ST-SB05-199-201 Gus ST-SB05-201-202.5			
205	3335				
210	3330				
215	3325				
220	3320				
225	3315				
230	3310				
235	3305				
240	3300				
245	3295				




















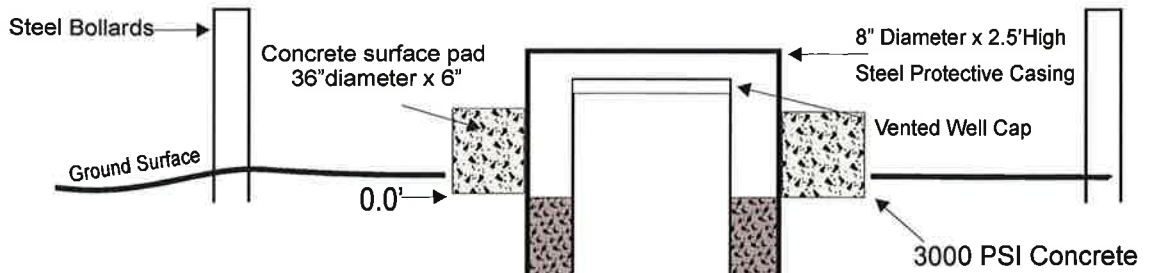
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**BORING LOG: ST-SB05
(PZ-2008-16)**

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
250	3290	ST-SB05-249-251 Gus ST-SB05-251-252.5			Sandy Silt, dark gray (2.5y 4/1), fine sand, dense, non-plastic, moist to wet, no cementation. Top 6" silt, bottom 1' fine sand, wet.
255	3285				
260	3280				
265	3275				
270	3270				
275	3265		SM		
280	3260				
285	3255				
290	3250				
295	3245				
300	3240				
305	3235				
310	3230				
315	3225				
320	3220				
325	3215				
330	3210				
					Native Alluvium, Total depth = 291.0 feet bgs.



WELL BORING DETAILS:

Drilling Method ARCH/Stratex
 Hammer Total Depth (ft. bgs) 86.0
 Nominal Borehole Diameter (in.) 10.0
 Date Completed 07/17/08
 ADWR No. 55-909377
 Depth to Water (ft. bgs) 67.25 10/17/08

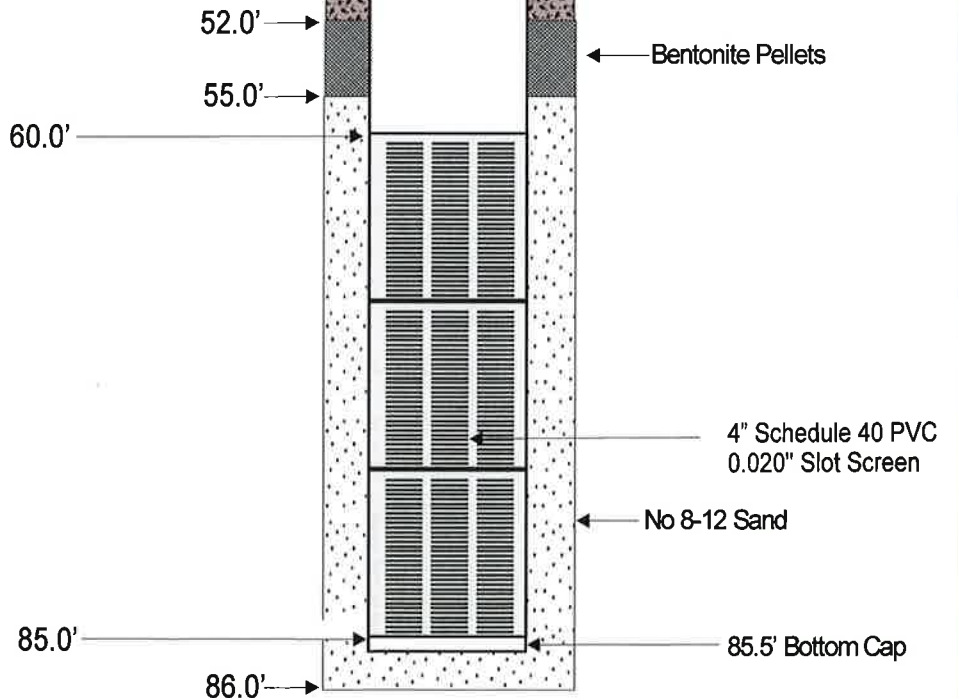
WELL CONSTRUCTION DETAILS:

Blank Casing

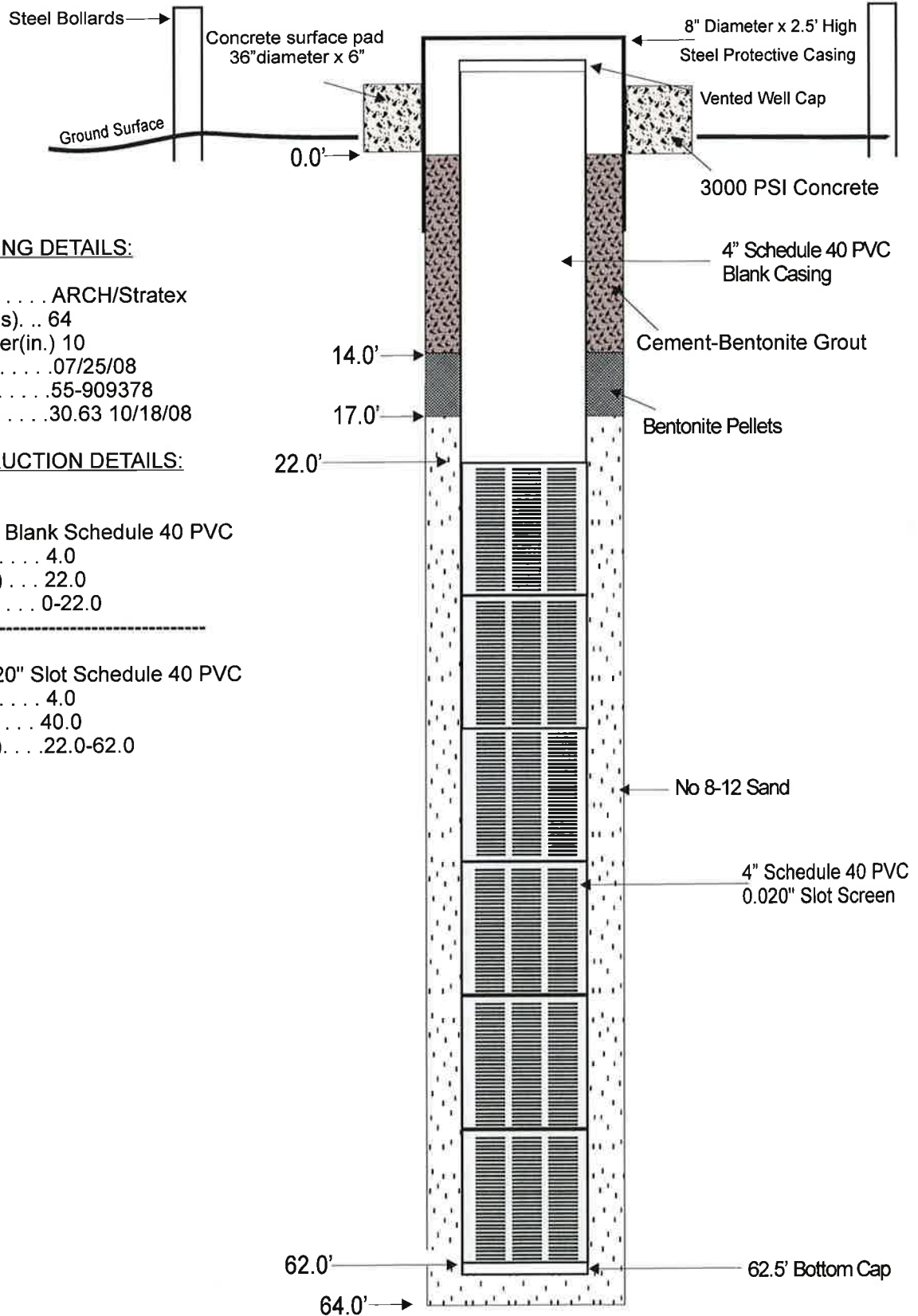
Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 60.0
 Blank Interval (ft. bgs) 0.0-60.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 25.0
 Screen Interval 60.0-85.0



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 Green Valley, AZ
 MW-2008-01 As Built



WELL BORING DETAILS:

Drilling Method ARCH/Stratex
 Hammer Total Depth (ft bgs) . . . 64
 Nominal Borehole Diameter (in.) 10
 Date Completed 07/25/08
 ADWR No. 55-909378
 Water Level (ft. bgs) 30.63 10/18/08

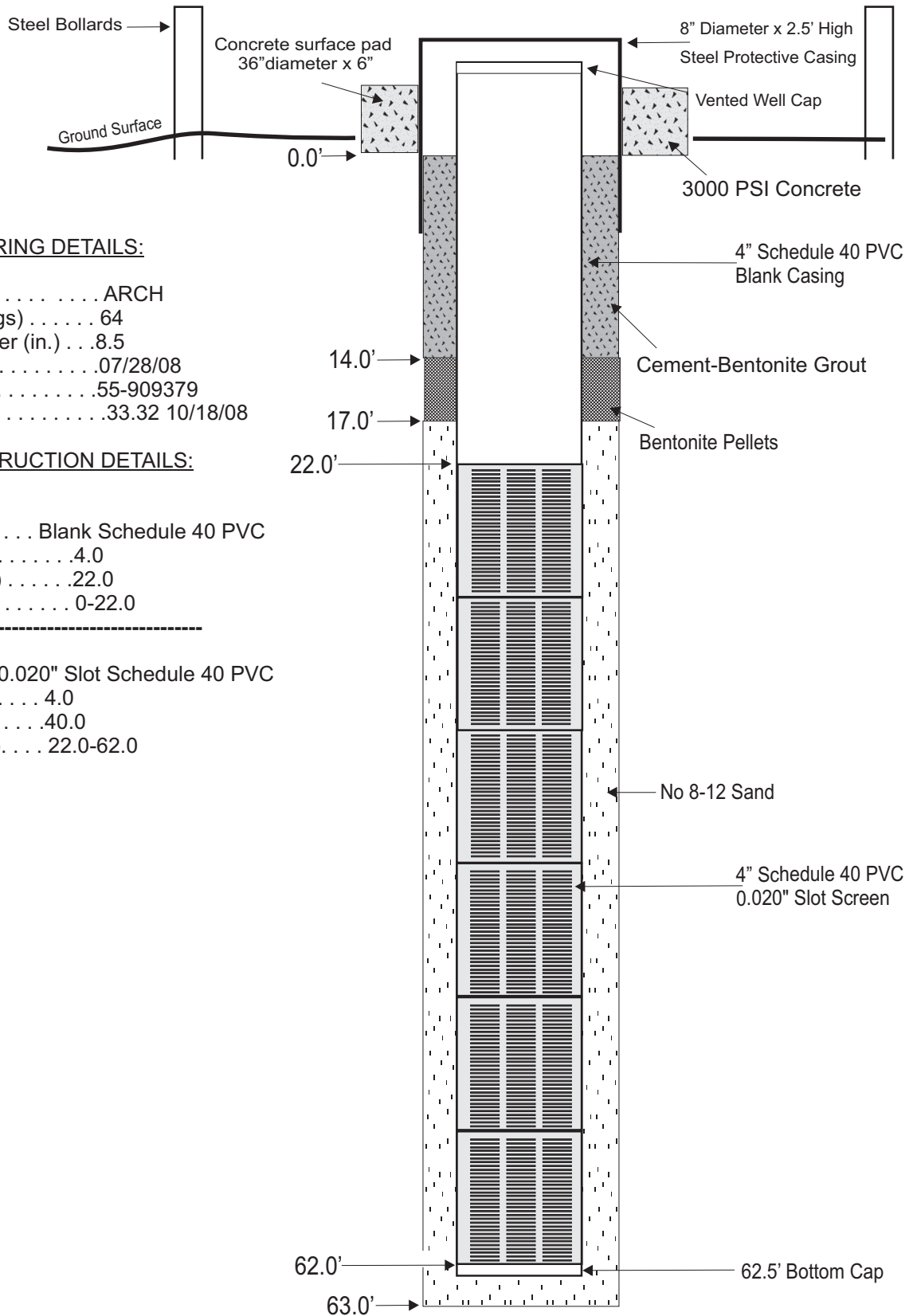
WELL CONSTRUCTION DETAILS:

Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) . . . 22.0
 Blank Interval (ft. bgs) . . . 0-22.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 40.0
 Screen Interval (ft. bgs) . . . 22.0-62.0



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 64
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 07/28/08
 ADWR No. 55-909379
 Water Level (ft. bgs). 33.32 10/18/08

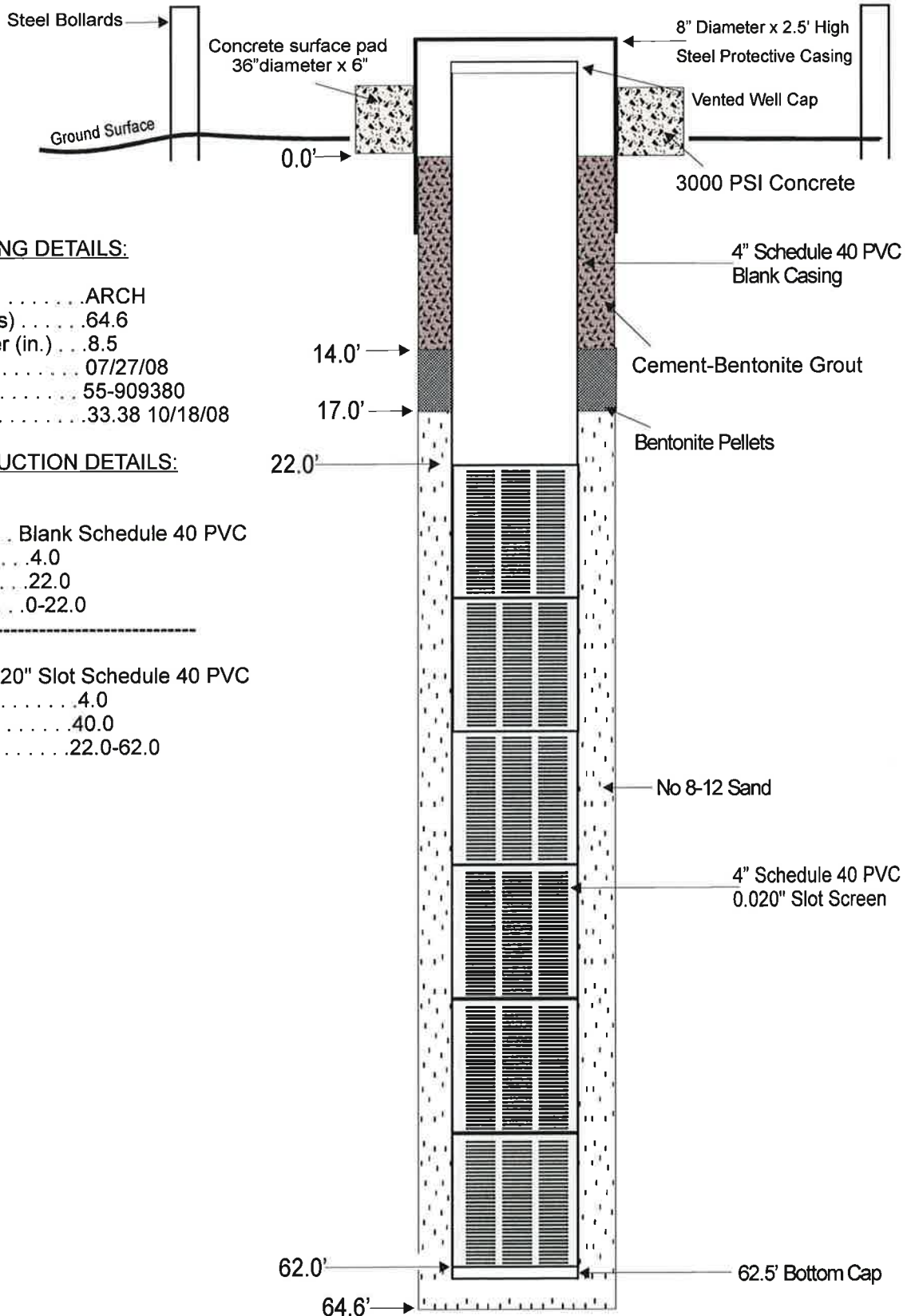
WELL CONSTRUCTION DETAILS:

Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 22.0
 Blank Interval (ft. bgs). 0-22.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 40.0
 Screen Interval (ft. bgs). 22.0-62.0



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 64.6
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 07/27/08
 ADWR No. 55-909380
 Water Level (ft. bgs) 33.38 10/18/08

WELL CONSTRUCTION DETAILS:

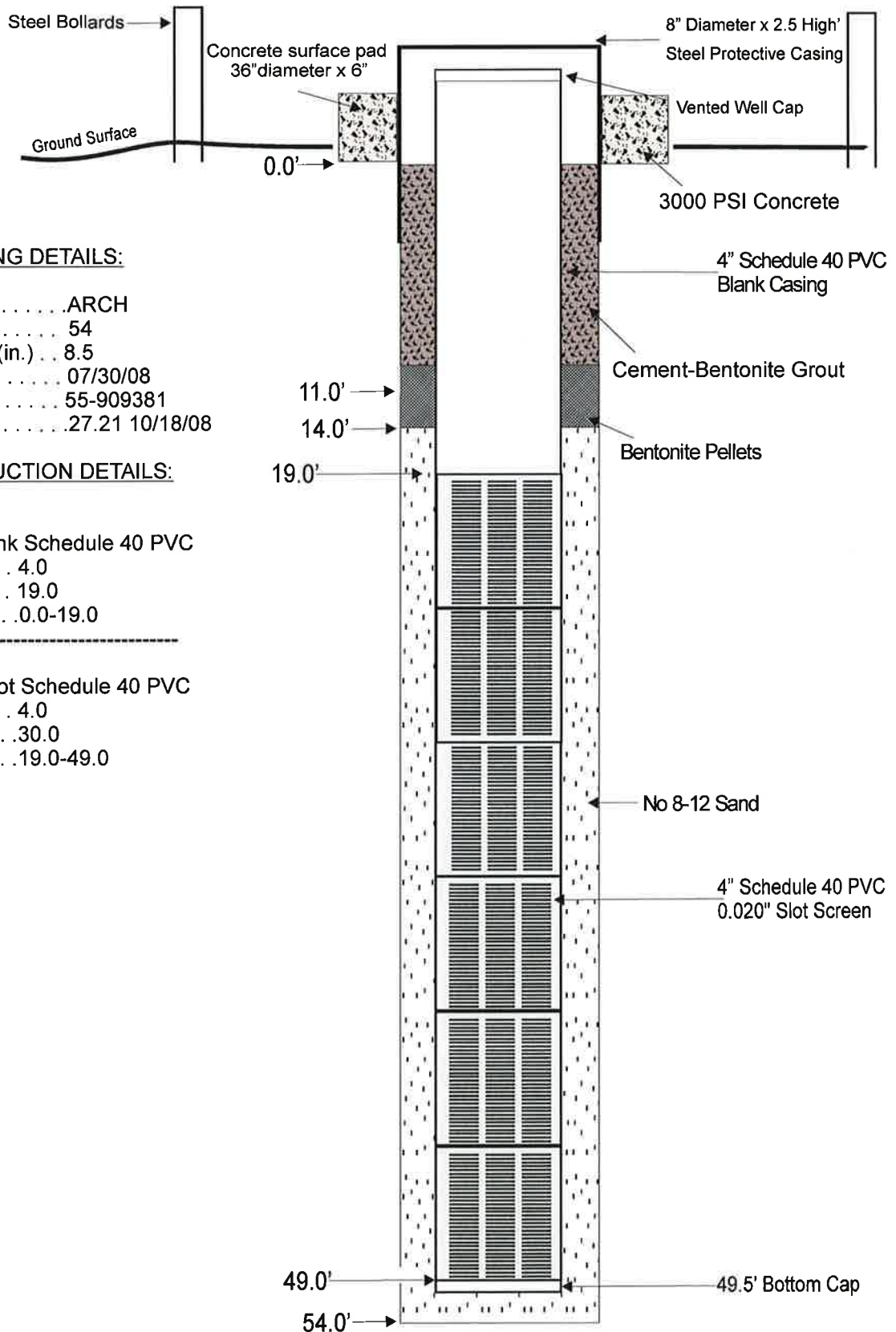
Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 22.0
 Blank Interval (ft. bgs) 0-22.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 40.0
 Screen Interval (ft. bgs) 22.0-62.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-04 As Built



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 54
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 07/30/08
 ADWR No. 55-909381
 Water Level (ft. bgs) 27.21 10/18/08

WELL CONSTRUCTION DETAILS:

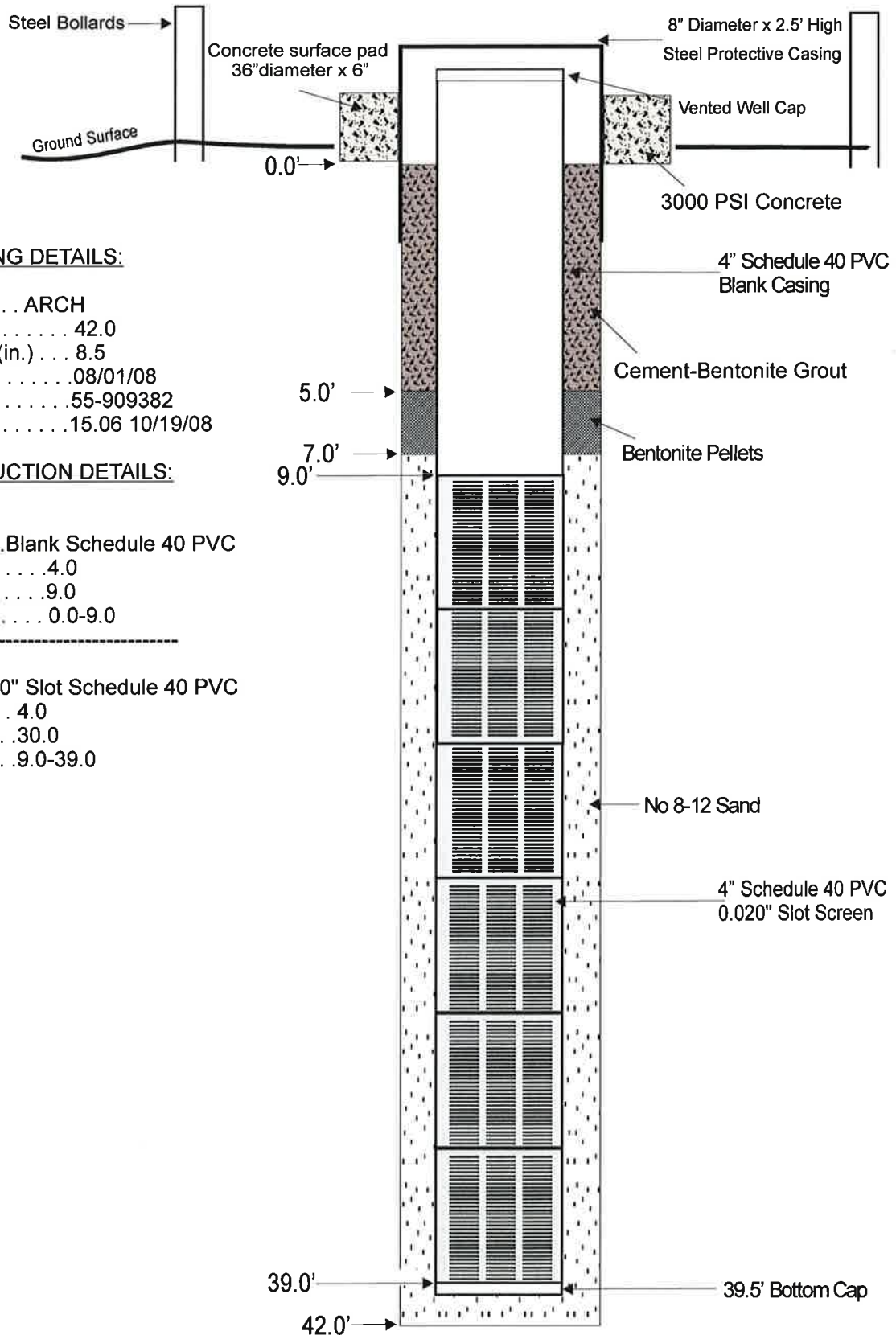
Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 19.0
 Blank Interval (ft. bgs) 0.0-19.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 30.0
 Screen Interval (ft. Bgs) 19.0-49.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-05 As Built



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 42.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 08/01/08
 ADWR No. 55-909382
 Water Level (ft. bgs). 15.06 10/19/08

WELL CONSTRUCTION DETAILS:

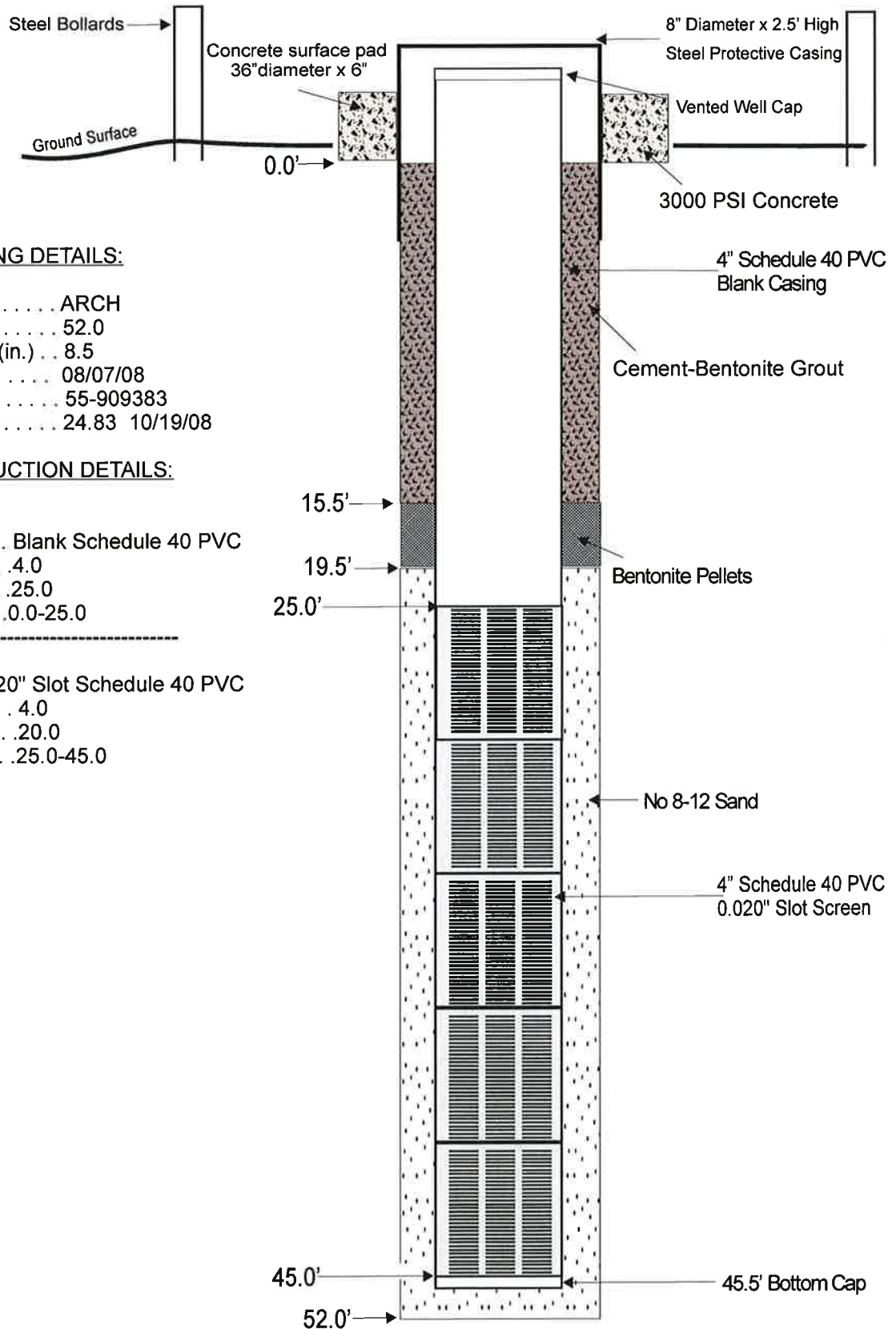
Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 9.0
 Blank Interval (ft. bgs). 0.0-9.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 30.0
 Screen Interval (ft. Bgs). 9.0-39.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-06 As Built



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 52.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 08/07/08
 ADWR No. 55-909383
 Water Level (ft. bgs) 24.83 10/19/08

WELL CONSTRUCTION DETAILS:

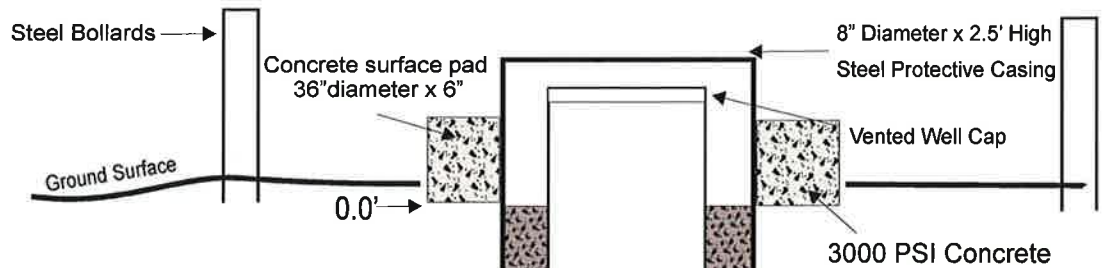
Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 25.0
 Blank Interval (ft. bgs) 0.0-25.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 20.0
 Screen Interval (ft. bgs) 25.0-45.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-07 As Built



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 48.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 08/10/08
 ADWR No. 55-909384
 Water Level (ft. bgs) 22.23 10/19/08

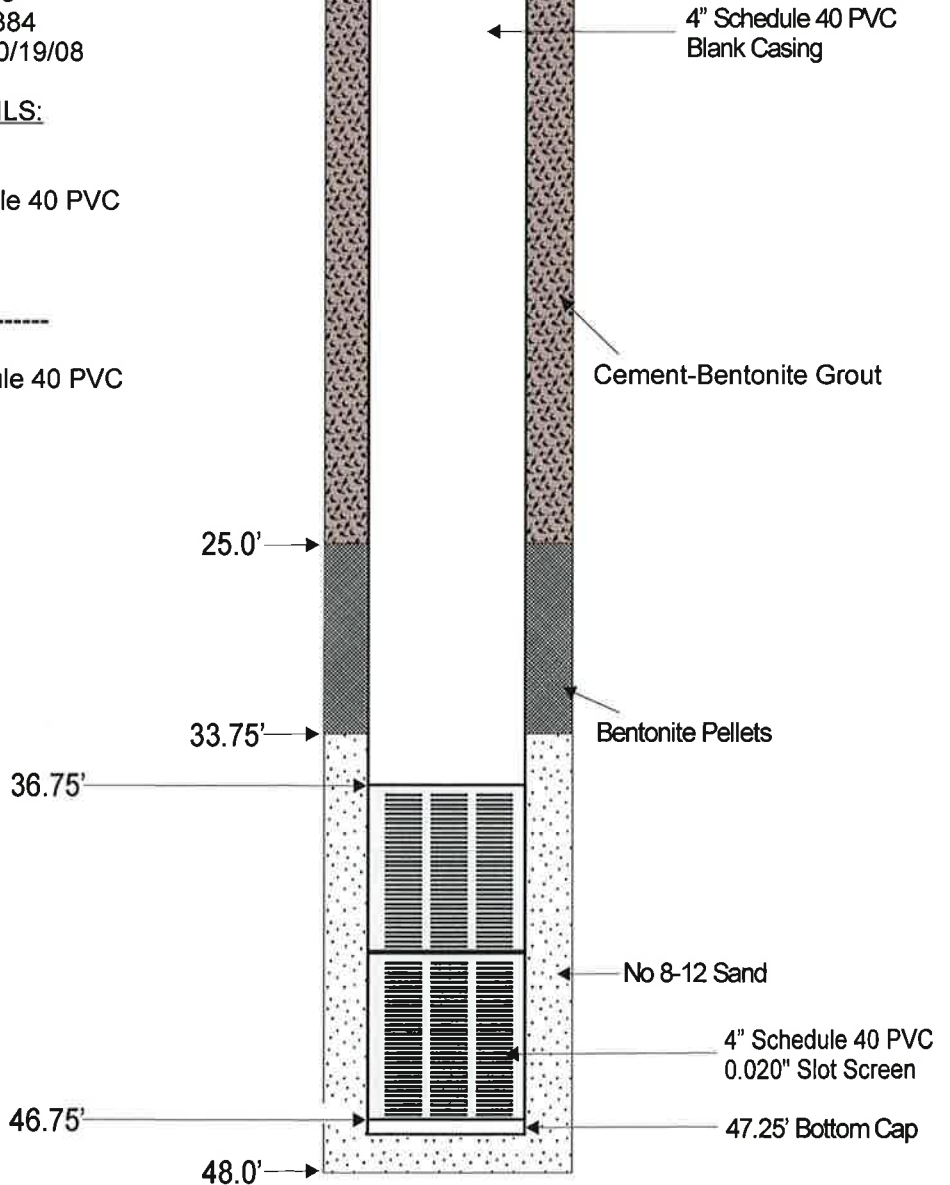
WELL CONSTRUCTION DETAILS:

Blank Casing

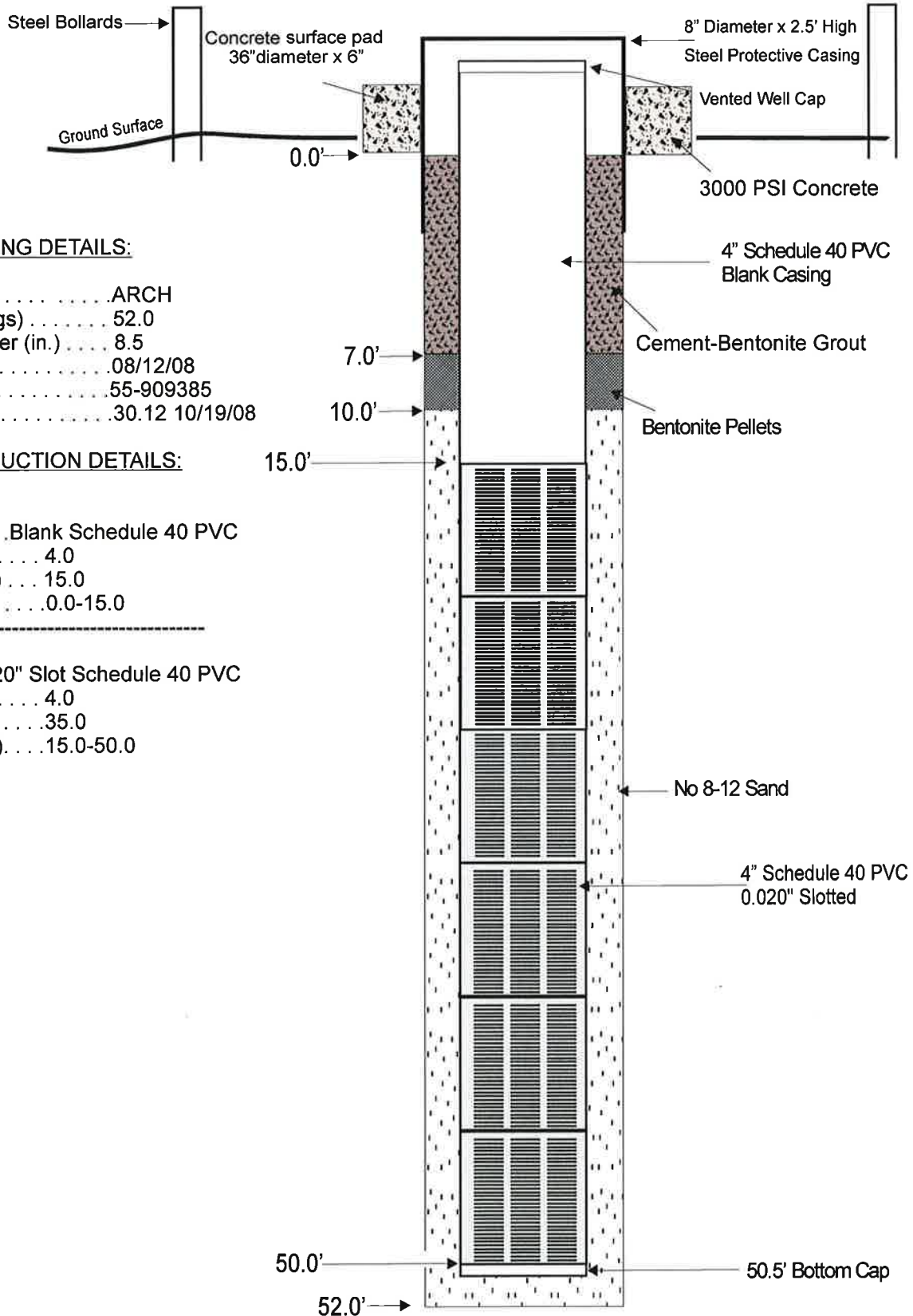
Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 36.75
 Blank Interval (ft. bgs) 0.0-36.75

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 10.0
 Screen Interval (ft. Bgs) 36.75-46.75



Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-08 As Built



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 52.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 08/12/08
 ADWR No. 55-909385
 Water Level (ft. bgs.) 30.12 10/19/08

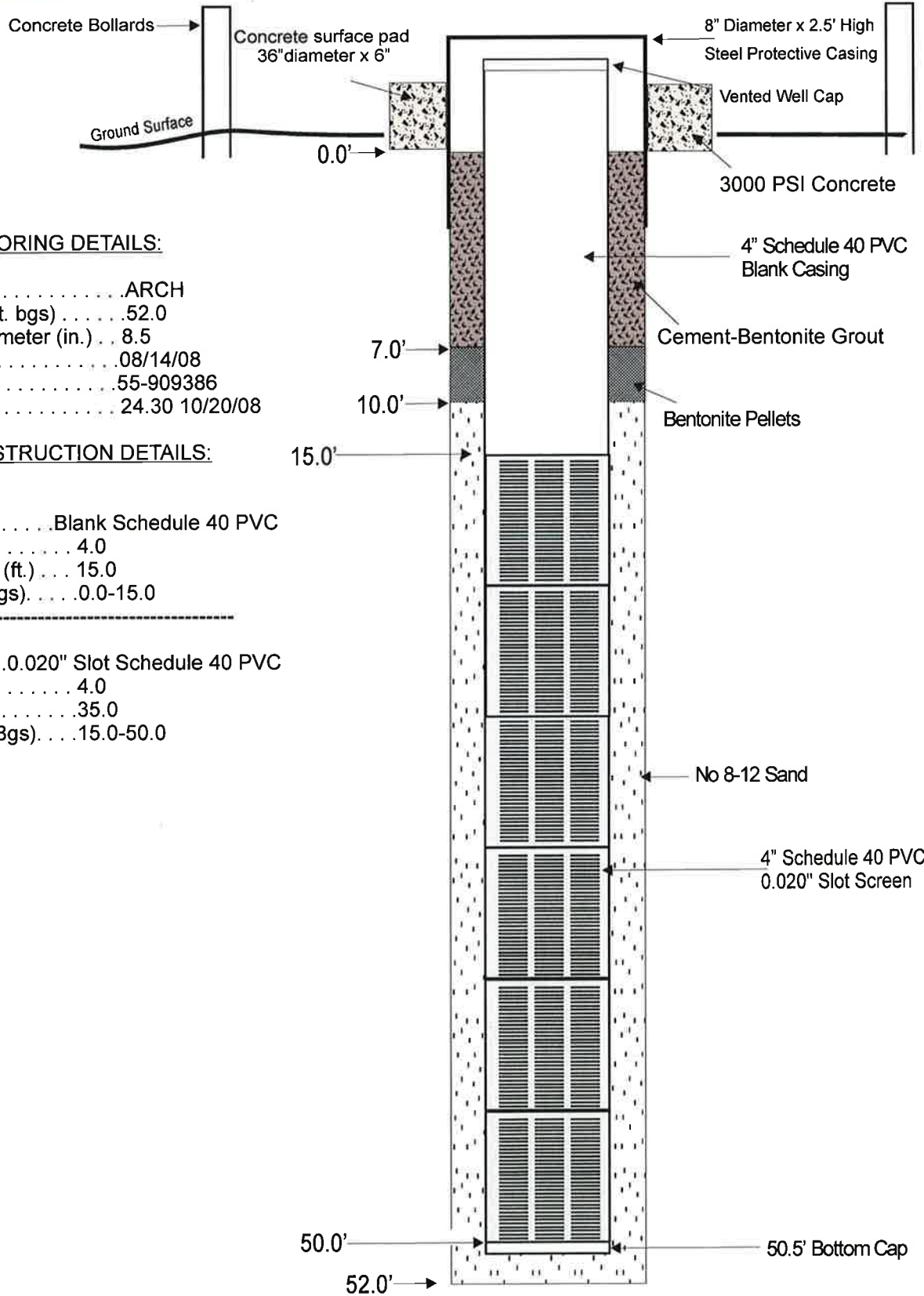
WELL CONSTRUCTION DETAILS:

Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 15.0
 Blank Interval (ft. bgs) 0.0-15.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 35.0
 Screen Interval (ft. Bgs) 15.0-50.0



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 52.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 08/14/08
 ADWR No. 55-909386
 Water Level (ft. bgs) 24.30 10/20/08

WELL CONSTRUCTION DETAILS:

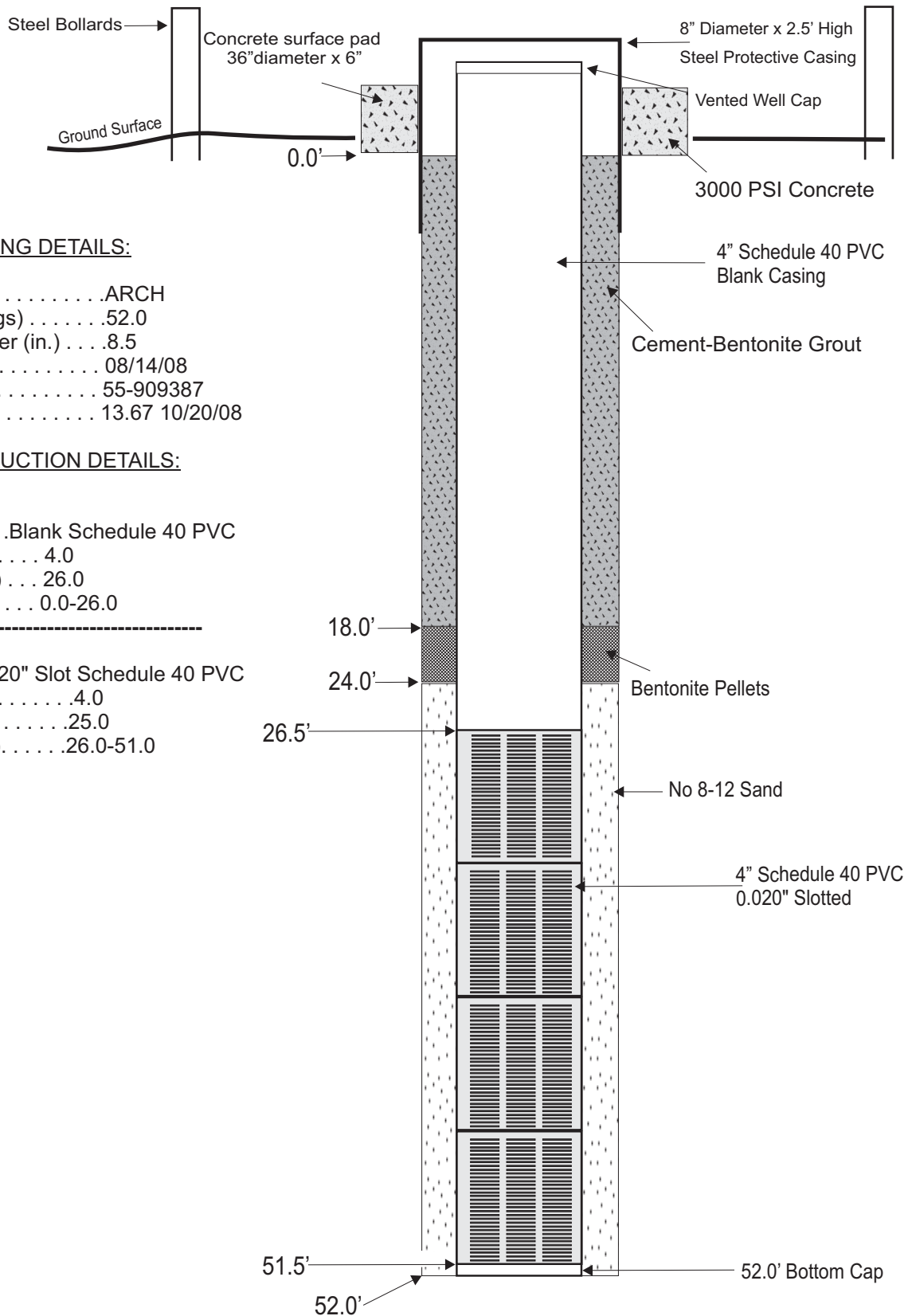
Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 15.0
 Blank Interval (ft. bgs) 0.0-15.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 35.0
 Screen Interval (ft. Bgs) 15.0-50.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-10 As Built



WELL BORING DETAILS:

Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 52.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 08/14/08
 ADWR No. 55-909387
 Water Level (ft. bgs). 13.67 10/20/08

WELL CONSTRUCTION DETAILS:

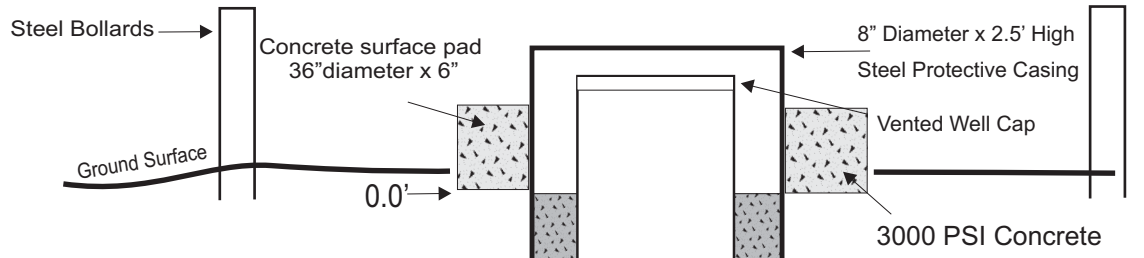
Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 26.0
 Blank Interval (ft. bgs). 0.0-26.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 25.0
 Screen Interval (ft. bgs). 26.0-51.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-11 As Built



WELL BORING DETAILS:

Drilling Method.....Cored 0-70 ft. bgs (3.83" dia)
 Drilling Method..... ARCH
 Hammer Total Depth (ft. bgs)156.0 See Logbook
 Nominal Borehole Diameter (in.)8.5
 Date Completed09/08/08
 ADWR No.55-909592
 Water Level (ft. bgs).92.89 10/21/08

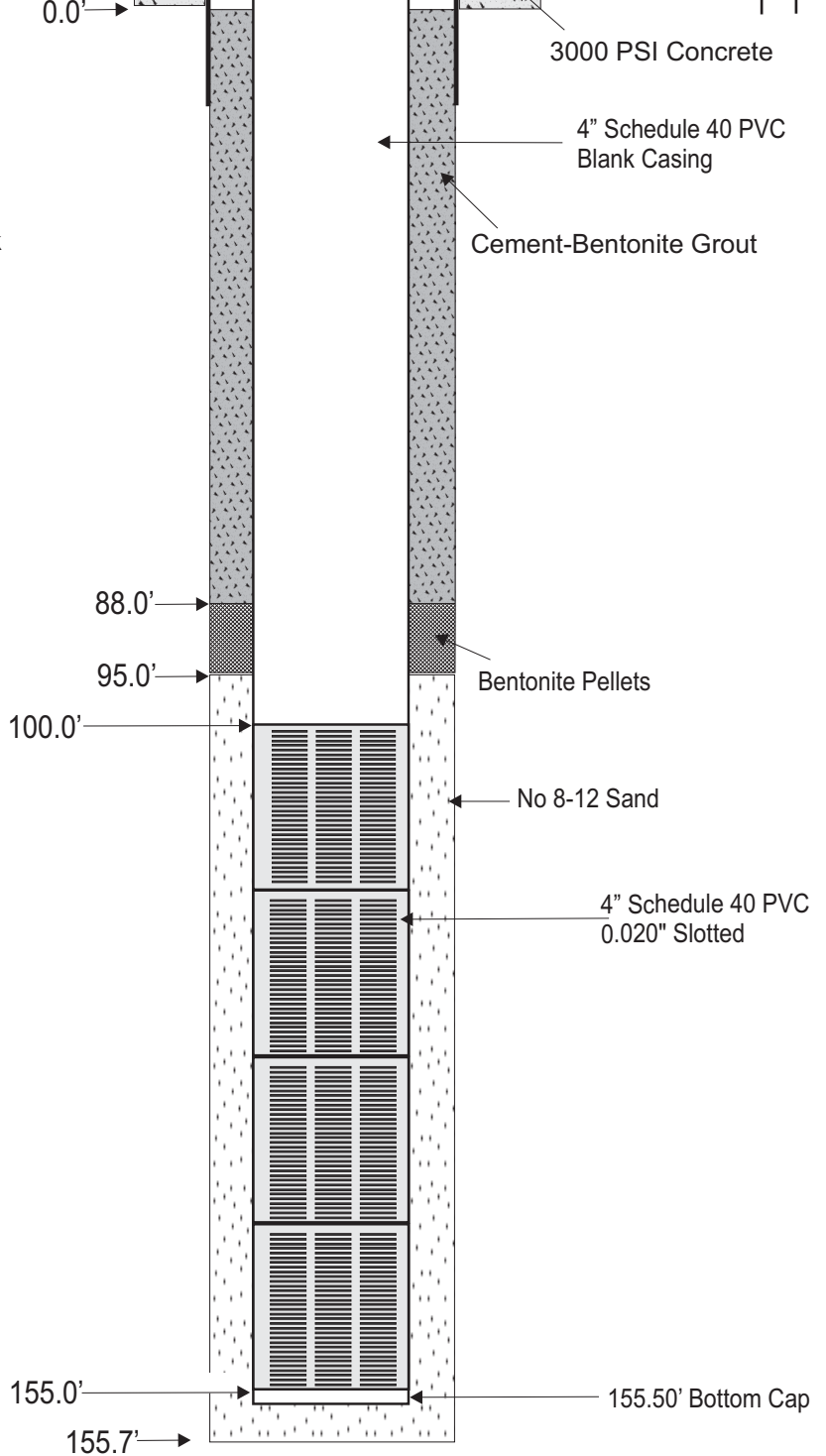
WELL CONSTRUCTION DETAILS:

Blank Casing

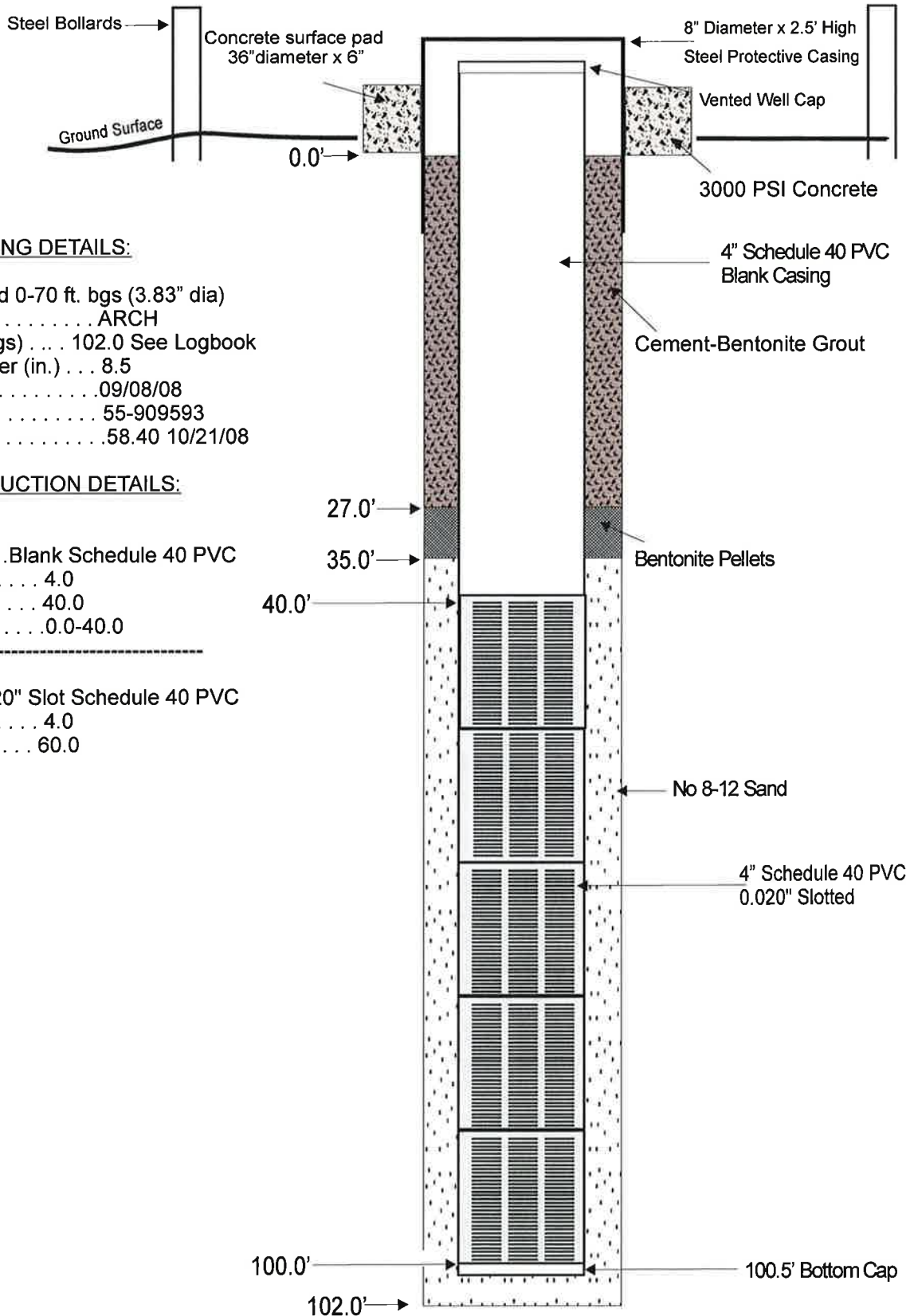
MaterialBlank Schedule 40 PVC
 Diameter (in.)4.0
 Well Casing Length (ft.)100.0
 Blank Interval (ft. bgs). . . .0.0-100.0

Screened Interval

Material0.020" Slot Schedule 40 PVC
 Diameter (in.)4.0
 Screen Length (ft.)55.0



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 Green Valley, AZ
 MW-2008-12 As Built



WELL BORING DETAILS:

Drilling Method.....Cored 0-70 ft. bgs (3.83" dia)
 Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 102.0 See Logbook
 Nominal Borehole Diameter (in.) 8.5
 Date Completed09/08/08
 ADWR No. 55-909593
 Water Level (ft. bgs).58.40 10/21/08

WELL CONSTRUCTION DETAILS:

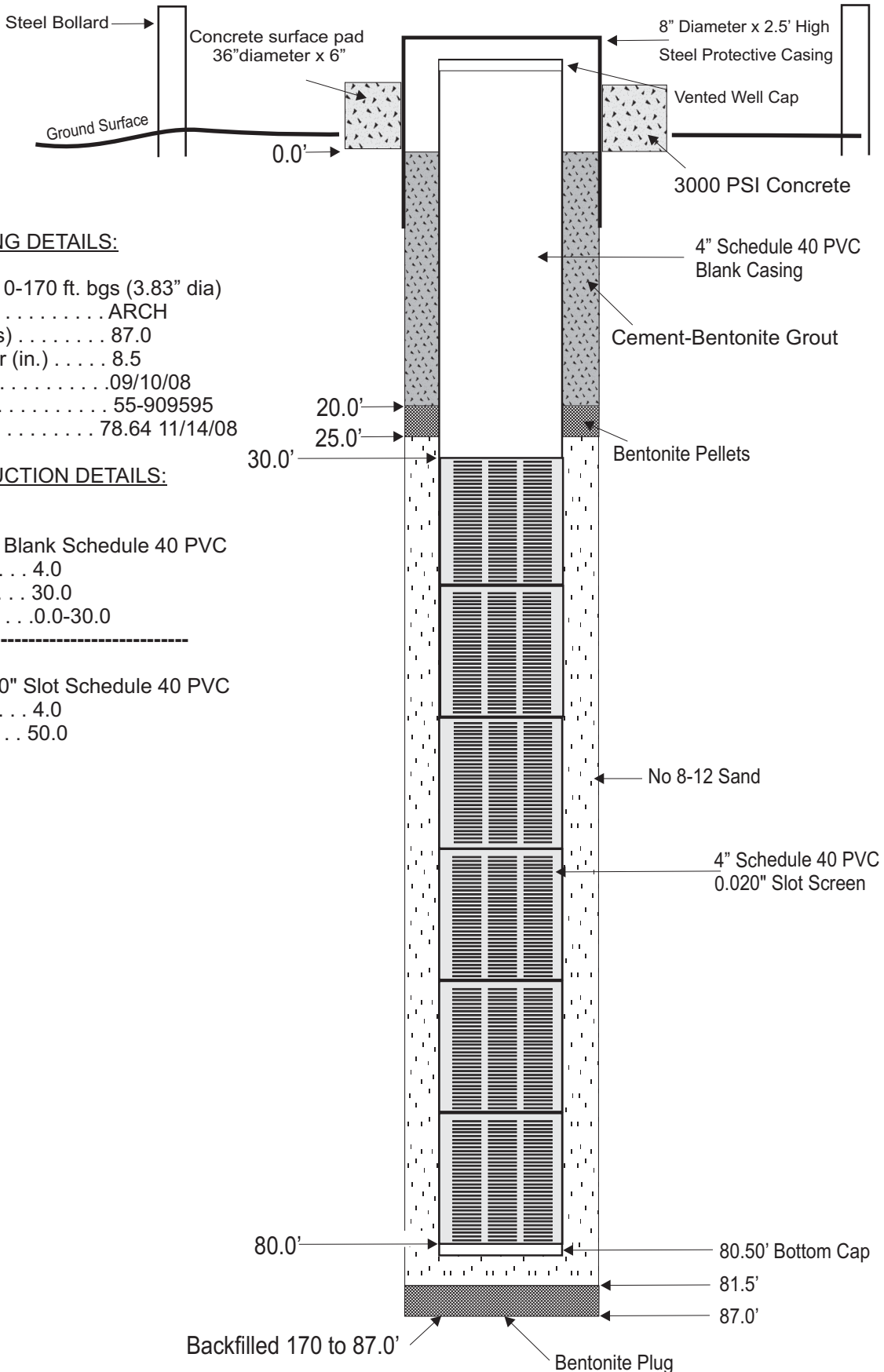
Blank Casing

MaterialBlank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 40.0
 Blank Interval (ft. bgs).0.0-40.0

Screened Interval

Material0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 60.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-13 As Built



WELL BORING DETAILS:

Drilling Method.....Cored 0-170 ft. bgs (3.83" dia)
 Drilling MethodARCH
 Hammer Total Depth (ft. bgs) 87.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed09/10/08
 ADWR No..... 55-909595
 Water Level (ft. bgs)..... 78.64 11/14/08

WELL CONSTRUCTION DETAILS:

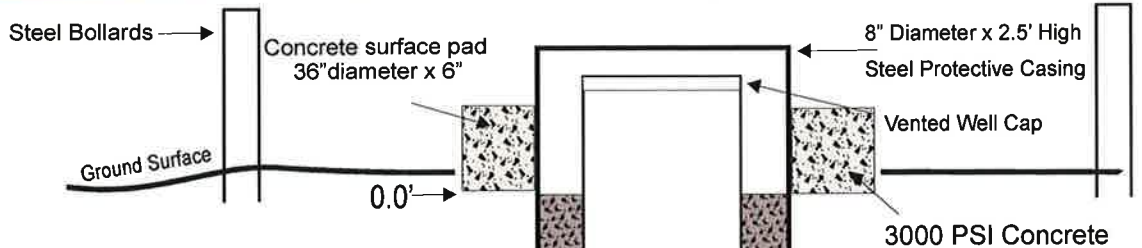
Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) ... 30.0
 Blank Interval (ft. bgs).....0.0-30.0

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 50.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-14 As Built



WELL BORING DETAILS:

Drilling Method.....Cored 0-69.2 ft. bgs (3.83" dia)
 Drilling Method ARCH
 Hammer Total Depth (ft. bgs) 110.0
 Nominal Borehole Diameter (in.) 8.5
 Date Completed 09/16/08
 ADWR No. 55-909594
 Water Level (ft. bgs) 52.31 11/05/08

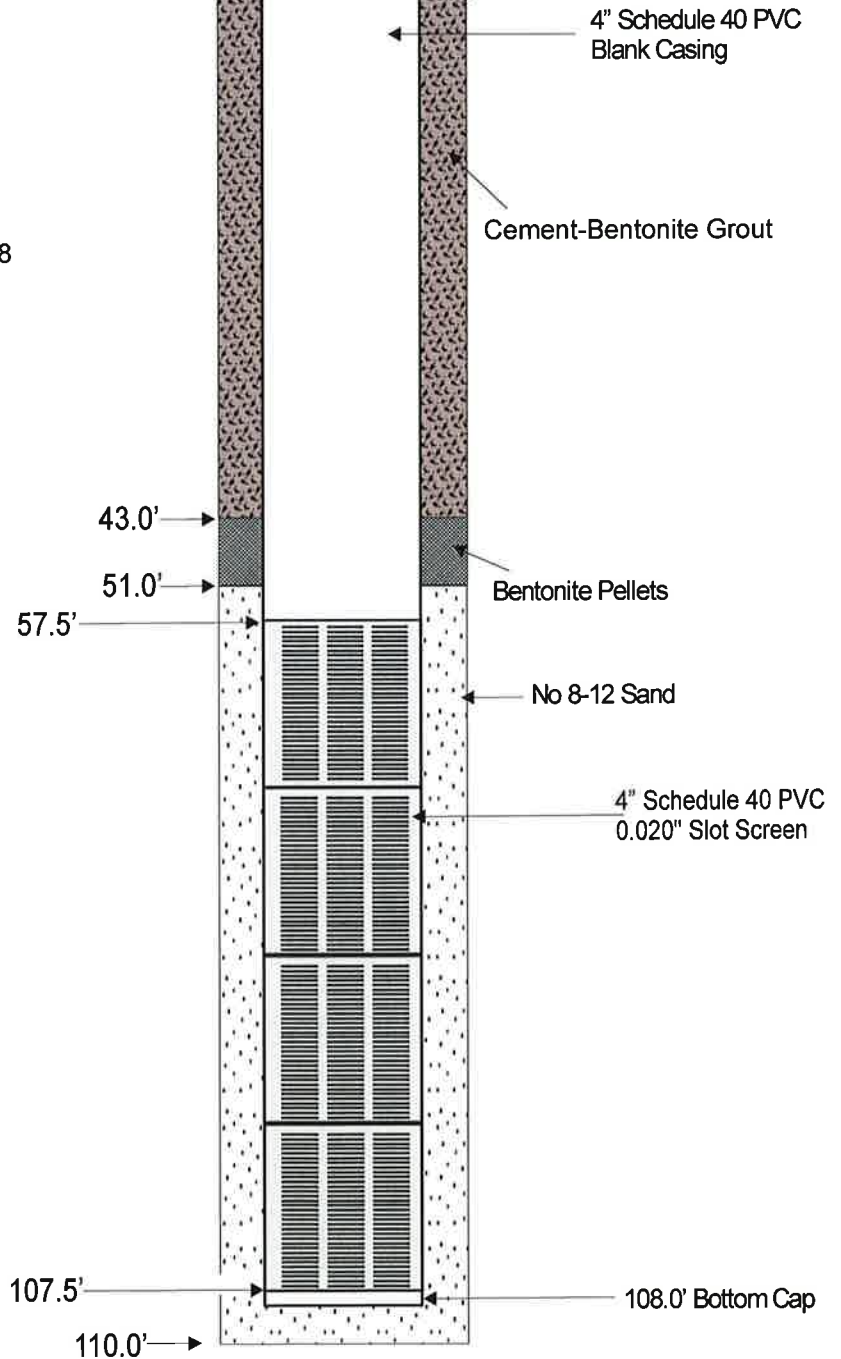
WELL CONSTRUCTION DETAILS:

Blank Casing

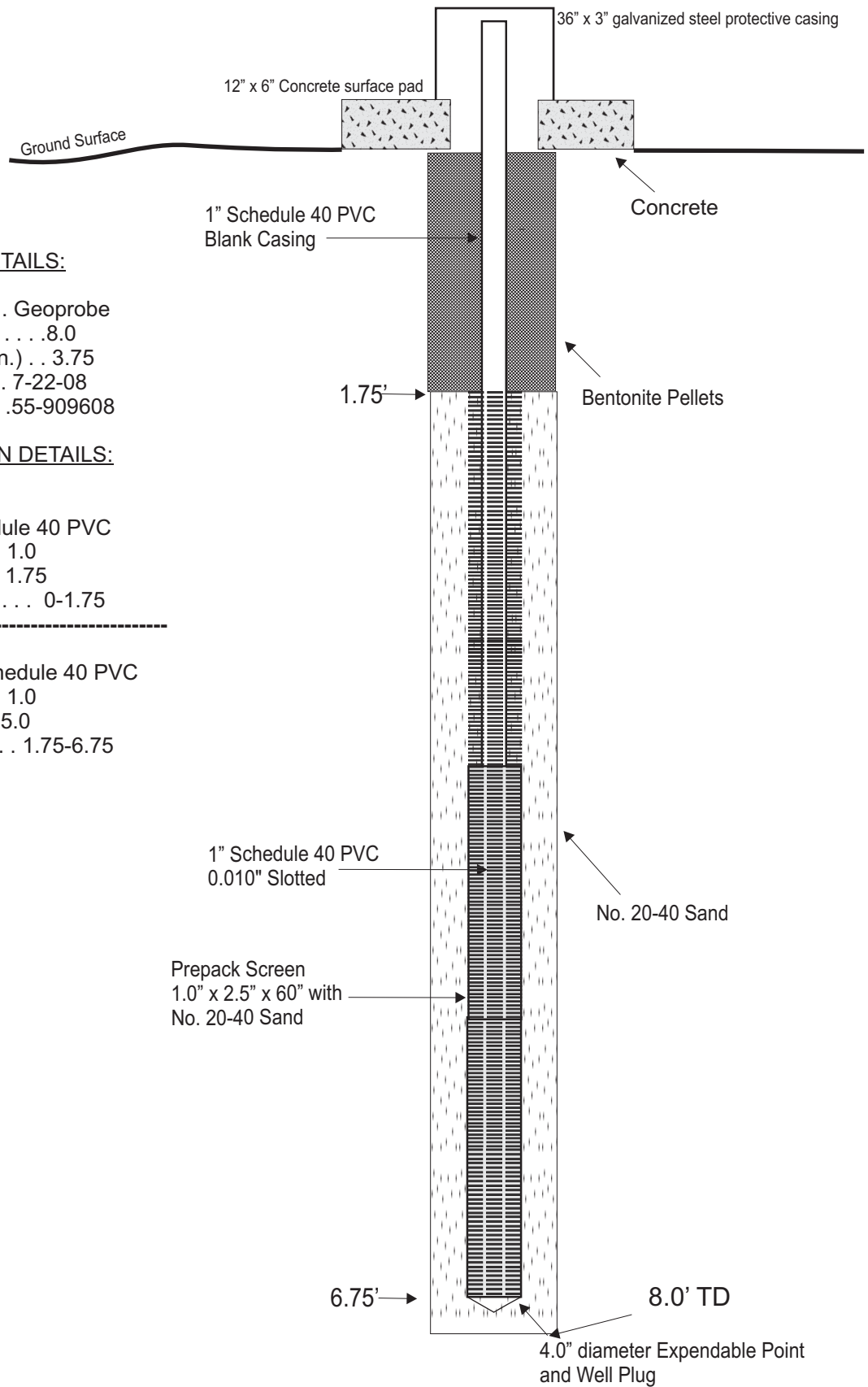
Material Blank Schedule 40 PVC
 Diameter (in.) 4.0
 Well Casing Length (ft.) 57.5
 Blank Interval (ft. bgs) 0.0-57.5

Screened Interval

Material 0.020" Slot Schedule 40 PVC
 Diameter (in.) 4.0
 Screen Length (ft.) 50.0



Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 MW-2008-15 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Total Depth (ft. bgs) 8.0
 Nominal Borehole Diameter (in.) . . 3.75
 Completion Date 7-22-08
 ADWR No. 55-909608

WELL CONSTRUCTION DETAILS:

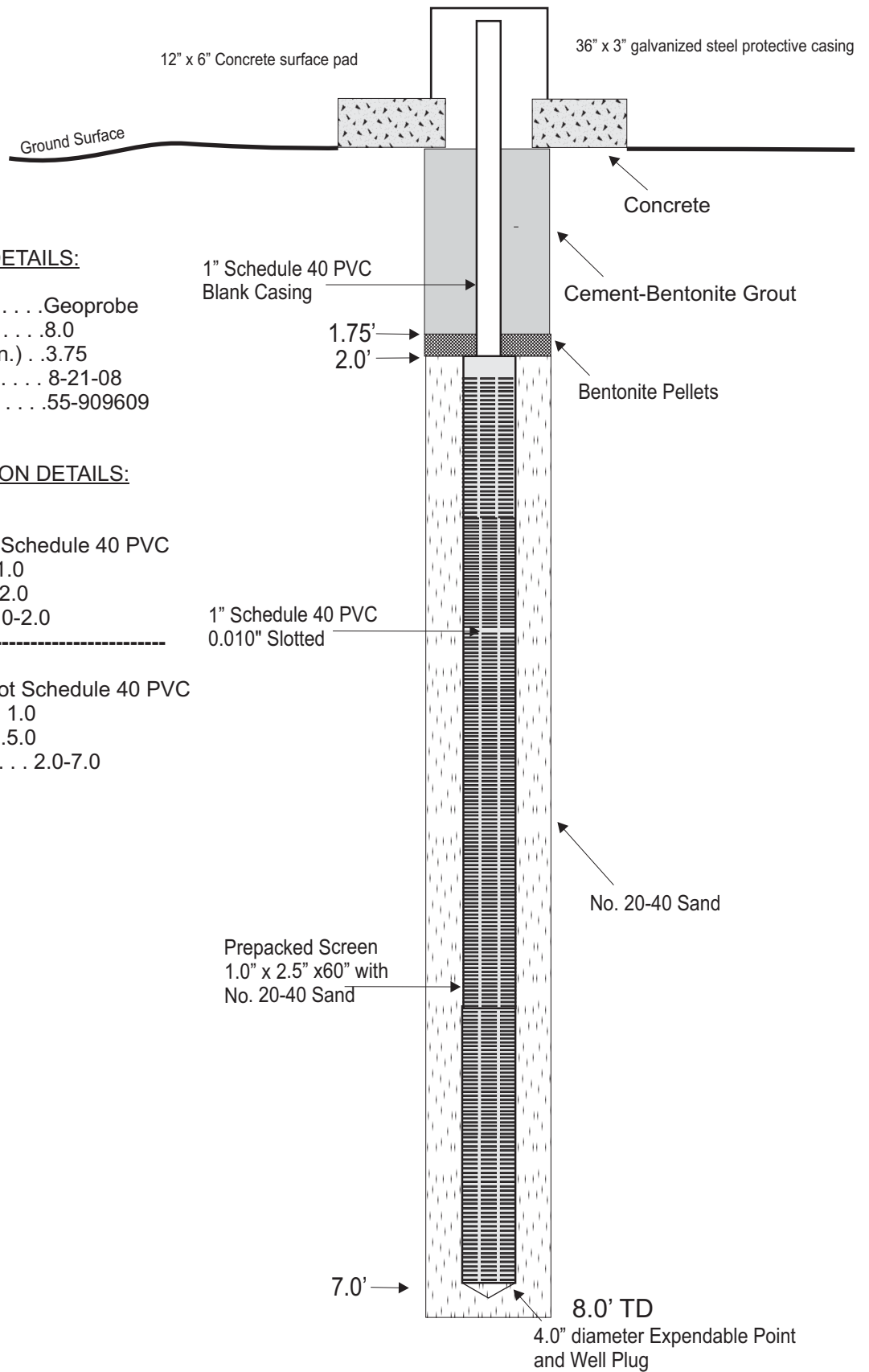
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) . . . 1.75
 Blank Interval (ft. bgs). 0-1.75

Screened Interval

Material . . . 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 5.0
 Screened Interval (ft. bgs). . . 1.75-6.75

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-01 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 8.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-21-08
 ADWR No. 55-909609

WELL CONSTRUCTION DETAILS:

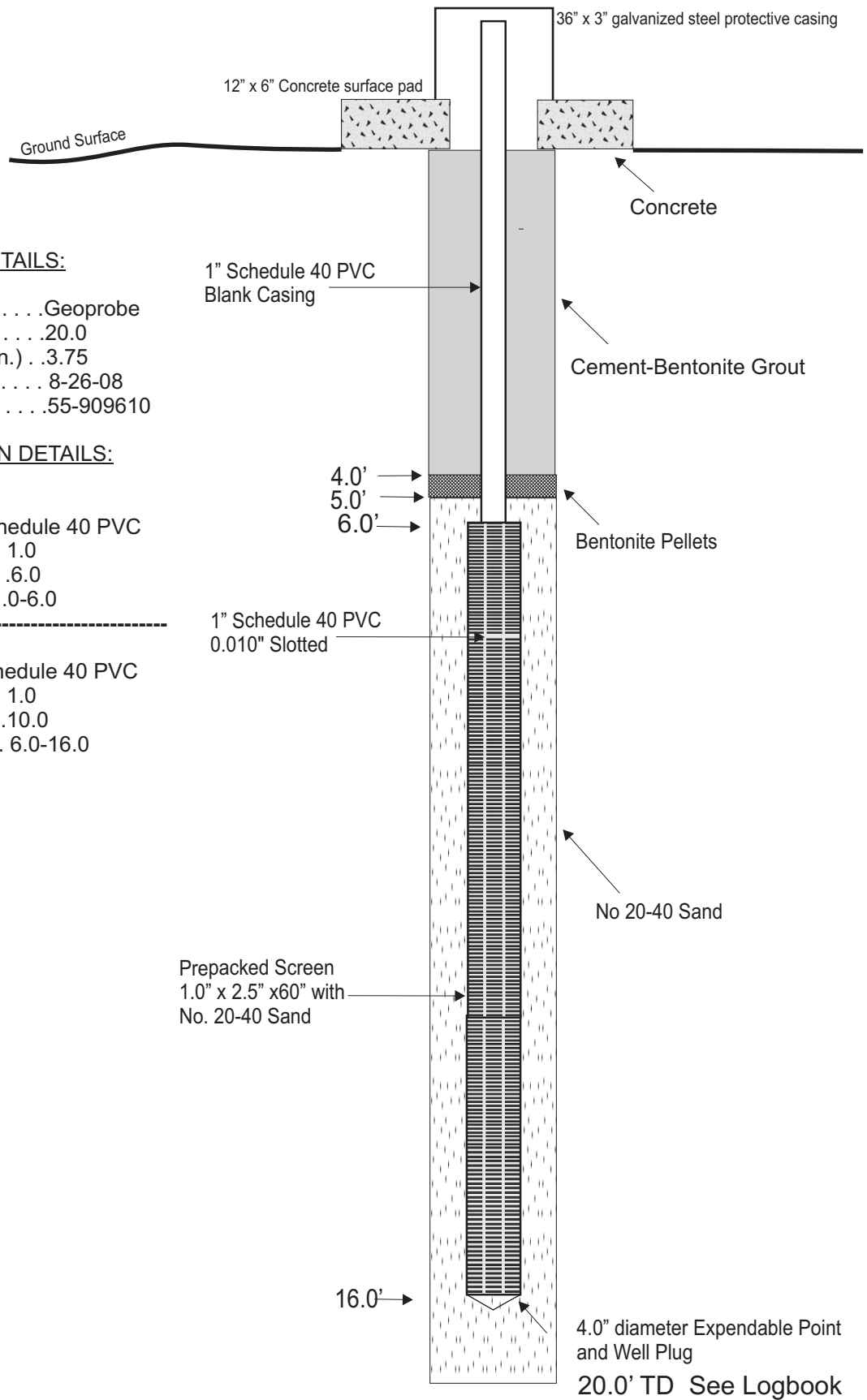
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 2.0
 Blank Interval (ft. bgs) 0-2.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 5.0
 Screened Interval (ft. bgs) 2.0-7.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-02 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 20.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-26-08
 ADWR No. 55-909610

WELL CONSTRUCTION DETAILS:

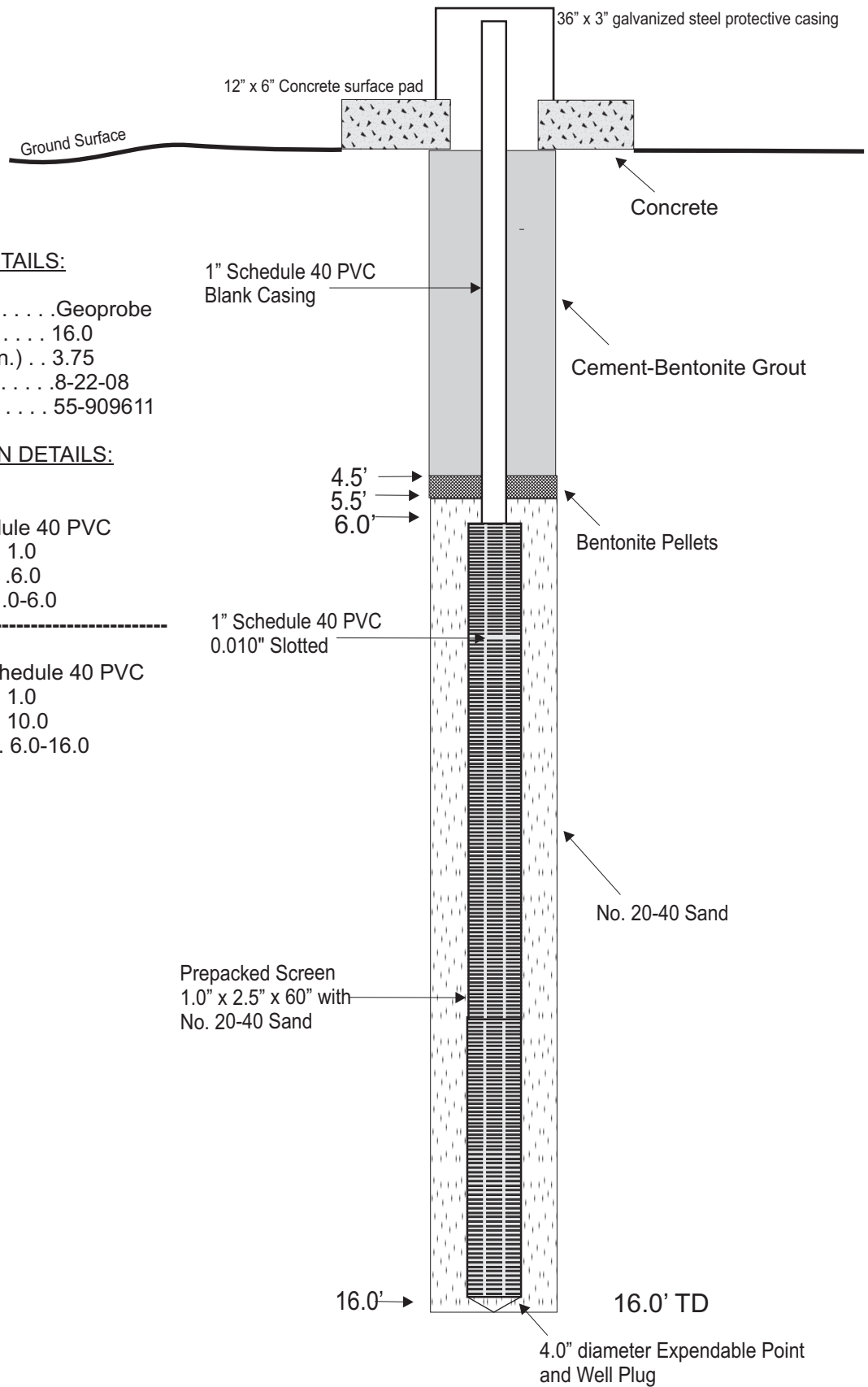
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 6.0
 Blank Interval (ft. bgs) 0-6.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 10.0
 Screened Interval (ft. bgs) 6.0-16.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-03 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 16.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-22-08
 ADWR No. 55-909611

WELL CONSTRUCTION DETAILS:

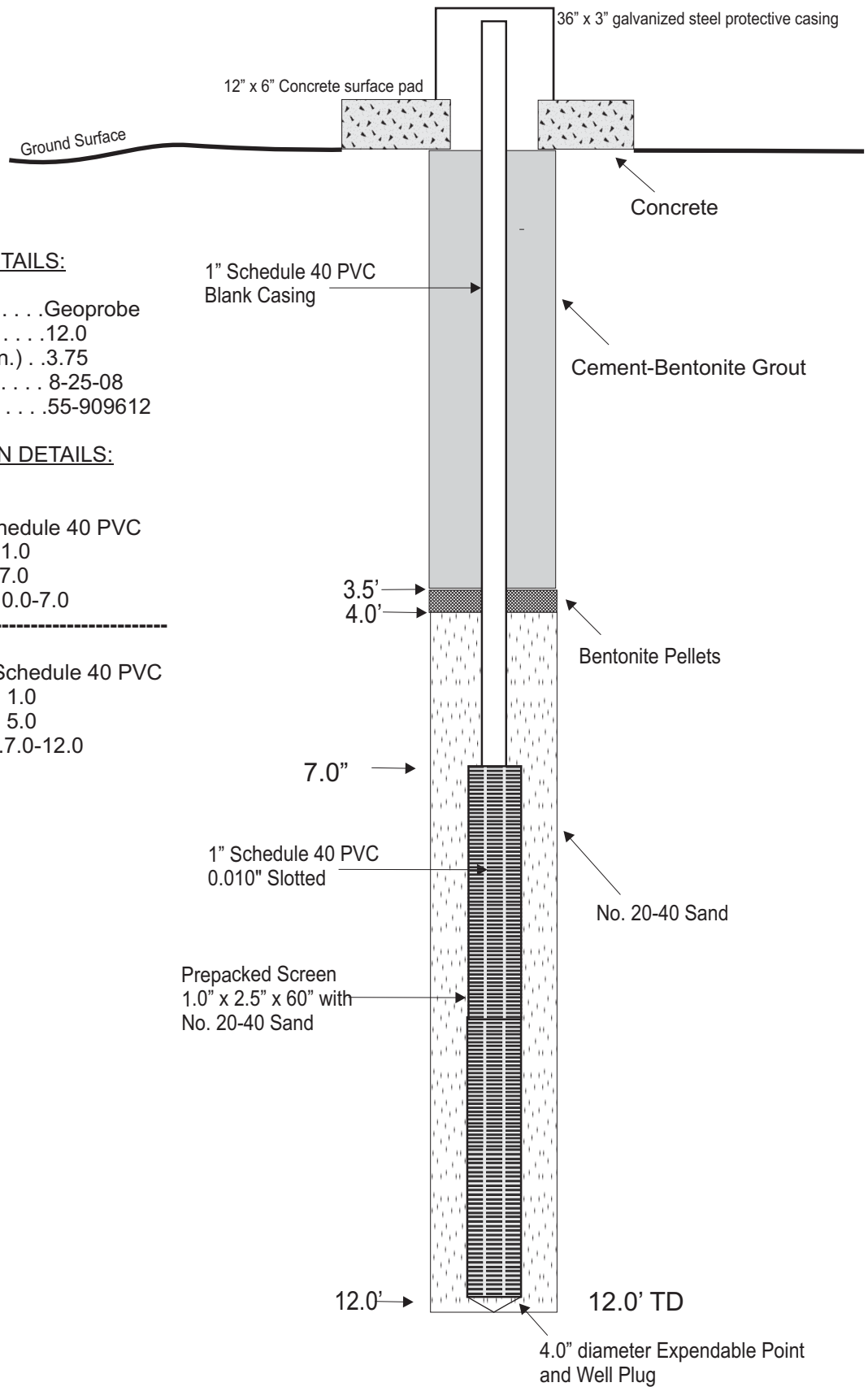
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 6.0
 Blank Interval (ft. bgs) 0-6.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 10.0
 Screened Interval (ft. bgs) 6.0-16.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-04 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 12.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-25-08
 ADWR No. 55-909612

WELL CONSTRUCTION DETAILS:

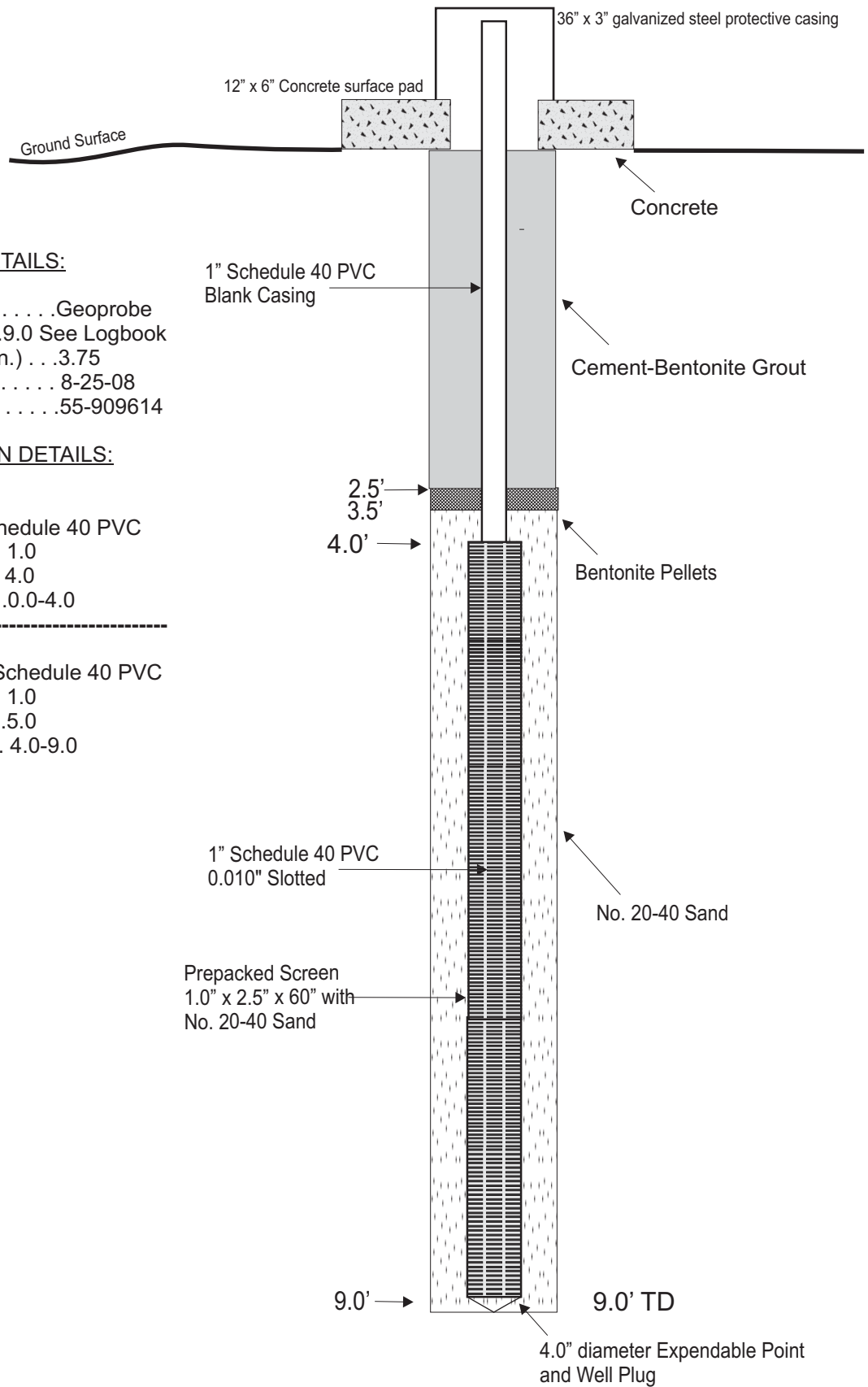
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 7.0
 Blank Interval (ft. bgs) 0.0-7.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 5.0
 Screened Interval (ft. bgs) 7.0-12.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-05 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) .9.0 See Logbook
 Nominal Borehole Diameter (in.) . . .3.75
 Completion Date 8-25-08
 ADWR No. 55-909614

WELL CONSTRUCTION DETAILS:

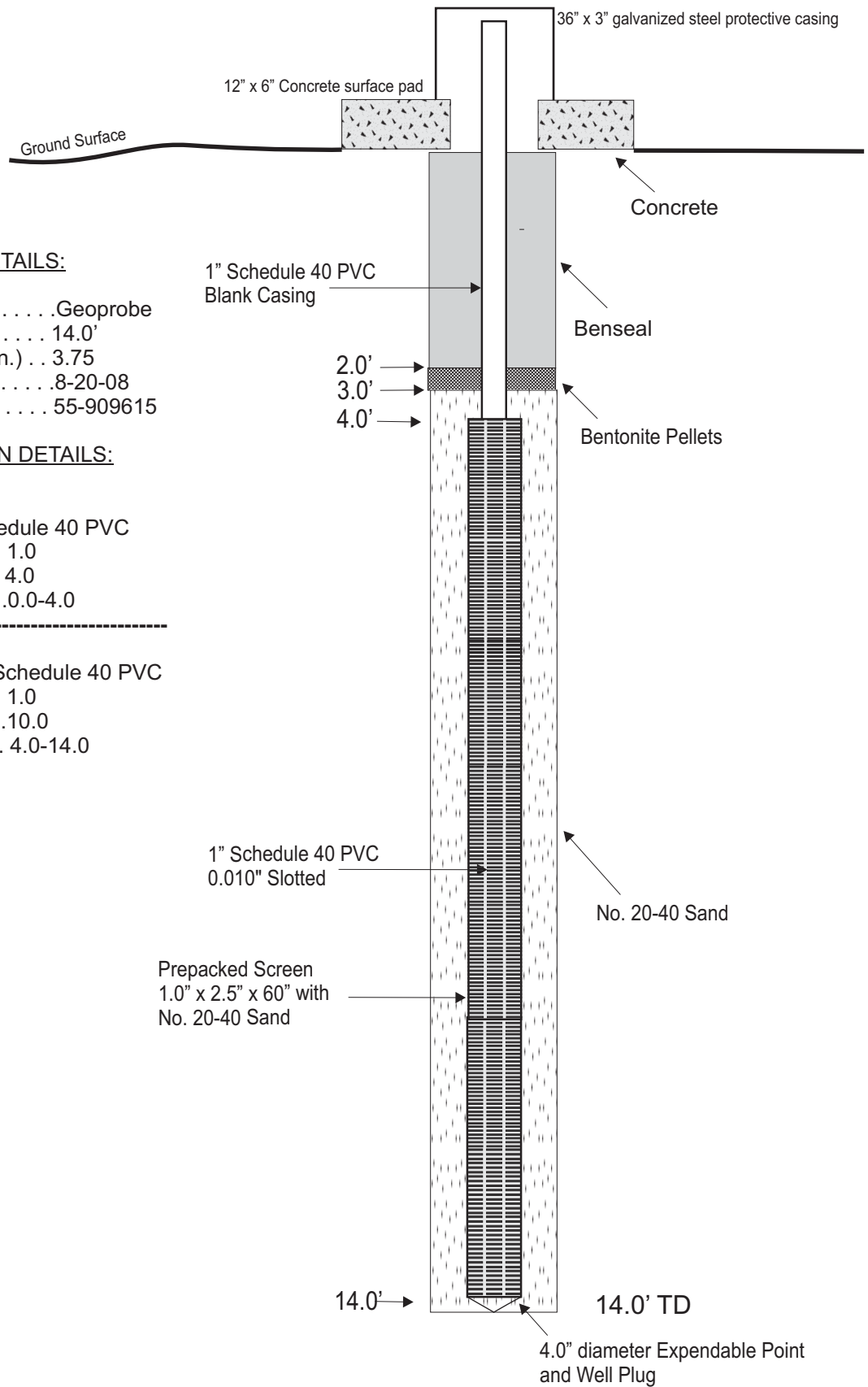
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) . . . 4.0
 Blank Interval (ft. bgs). . . .0.0-4.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.)5.0
 Screened Interval (ft. bgs). . 4.0-9.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-07 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 14.0'
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-20-08
 ADWR No. 55-909615

WELL CONSTRUCTION DETAILS:

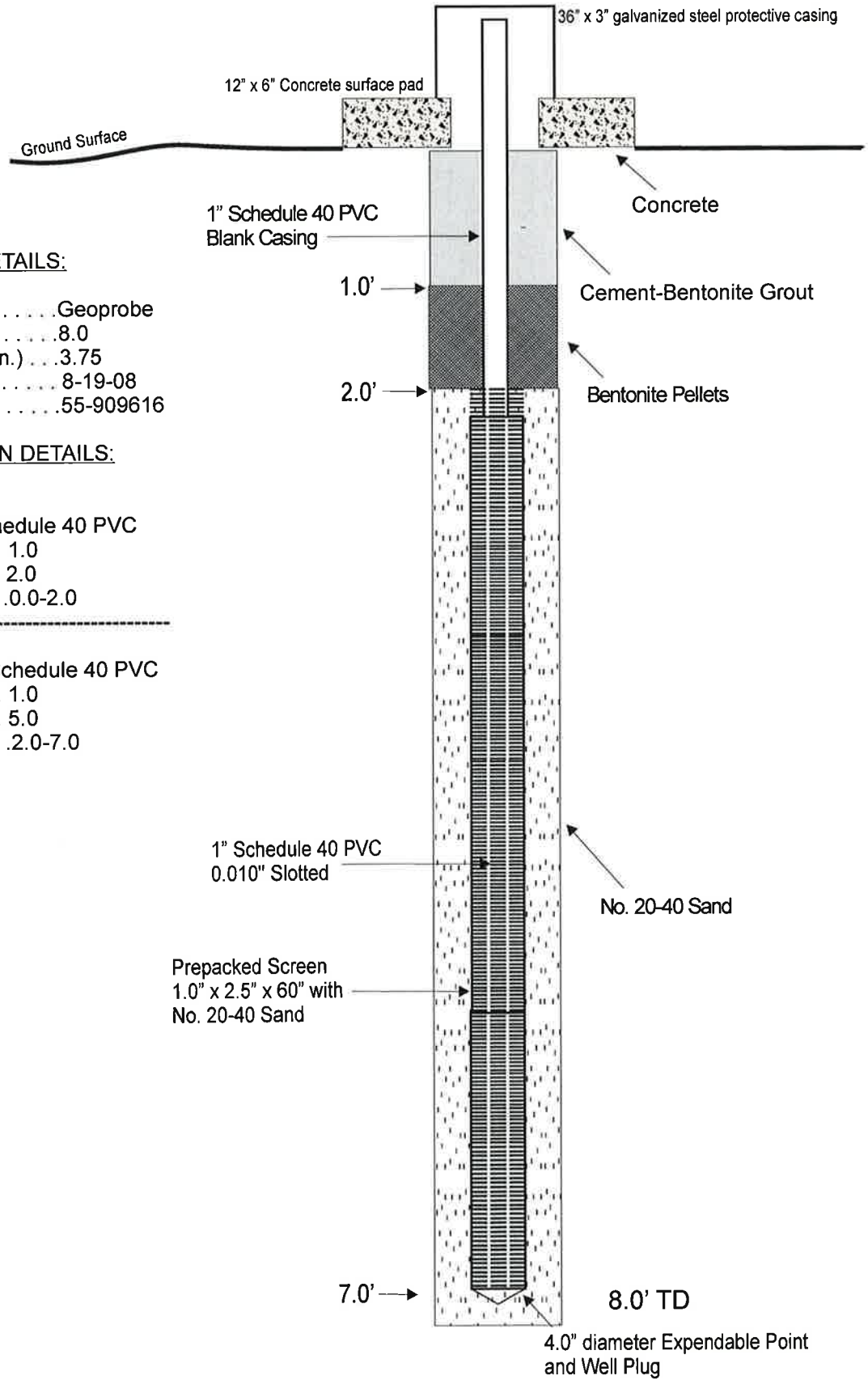
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 4.0
 Blank Interval (ft. bgs) 0.0-4.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 10.0
 Screened Interval (ft. bgs) 4.0-14.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-08 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 8.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-19-08
 ADWR No. 55-909616

WELL CONSTRUCTION DETAILS:

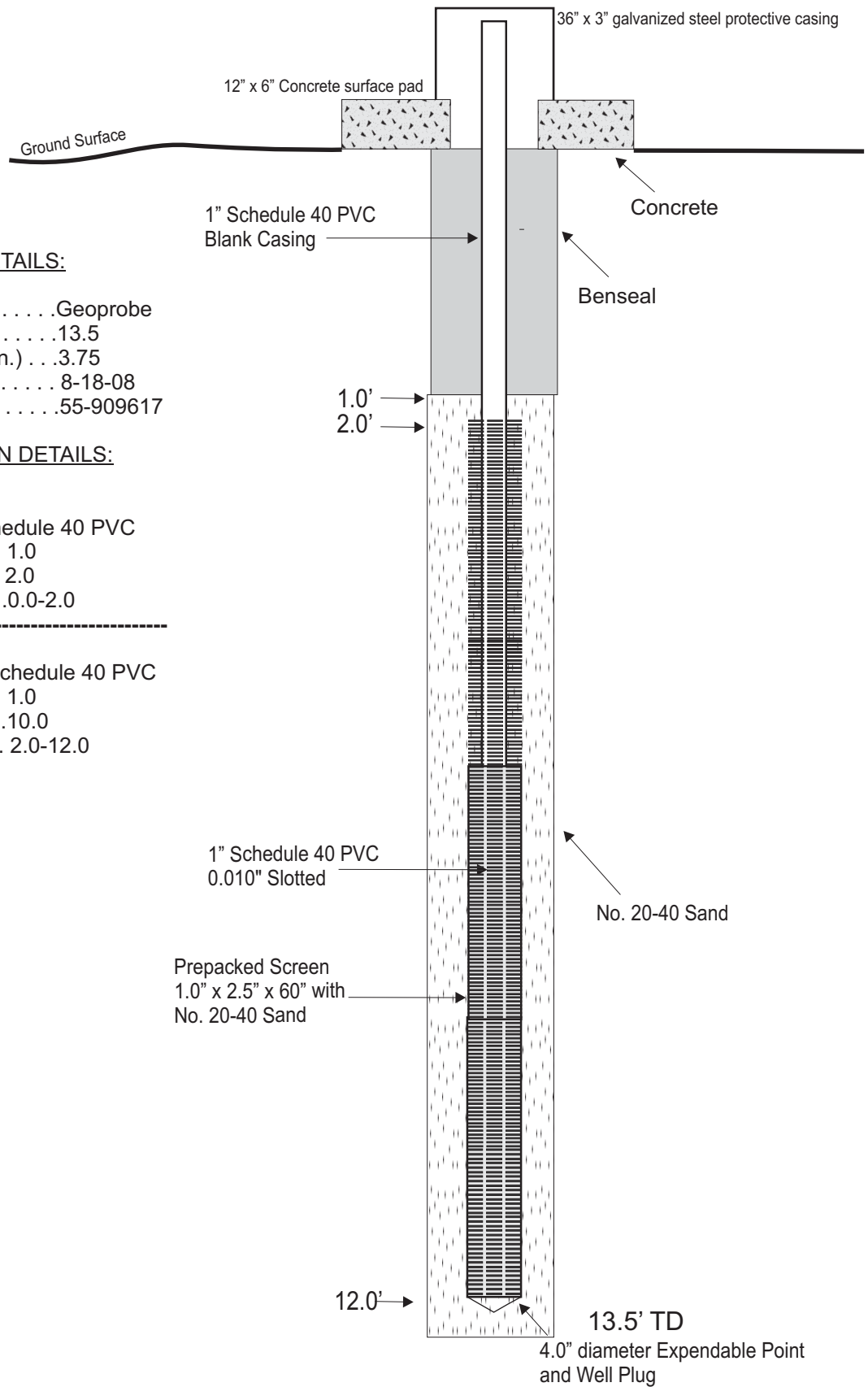
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 2.0
 Blank Interval (ft. bgs) 0.0-2.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 5.0
 Screened Interval (ft. bgs) 2.0-7.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-09 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 13.5
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-18-08
 ADWR No. 55-909617

WELL CONSTRUCTION DETAILS:

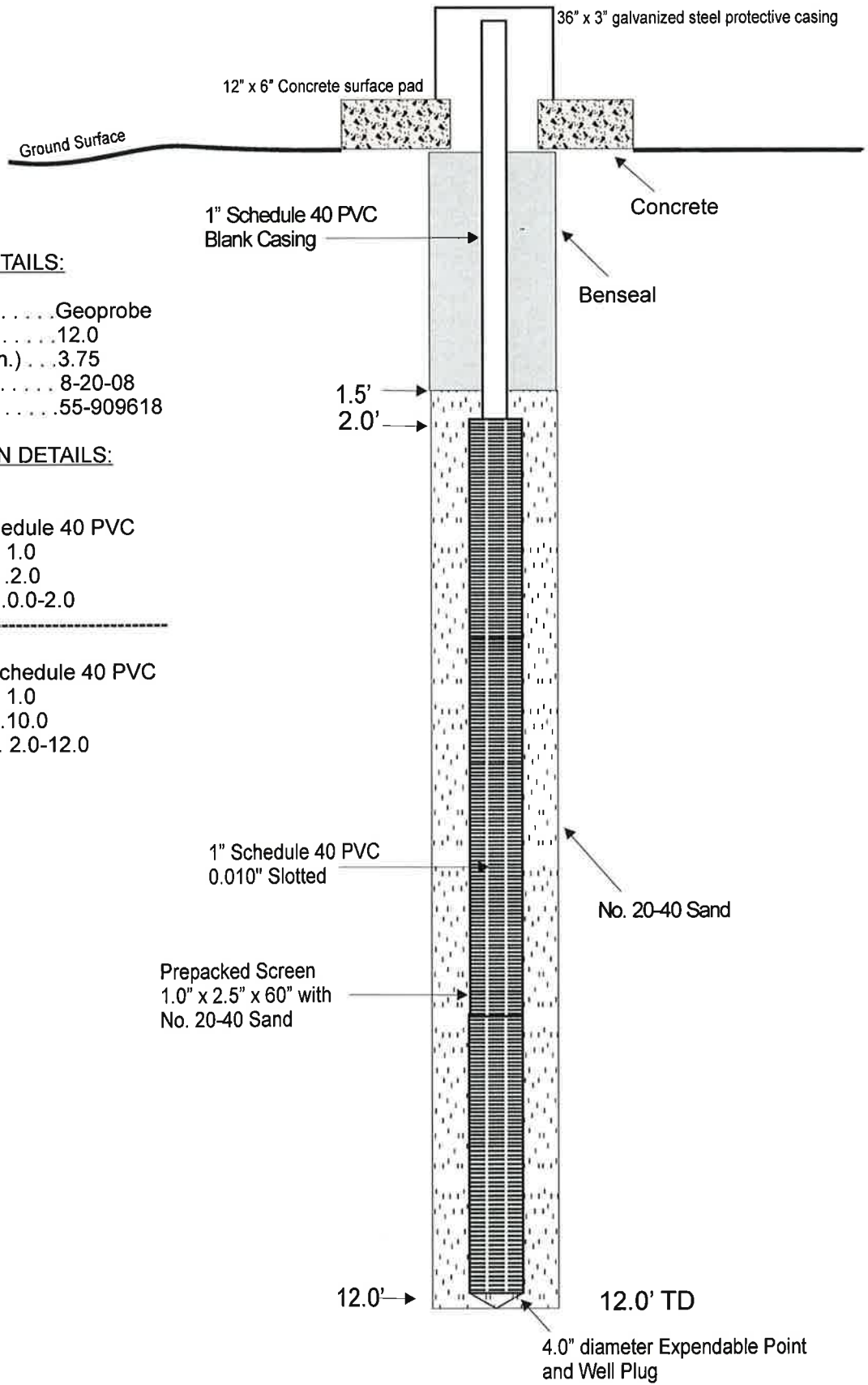
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 2.0
 Blank Interval (ft. bgs) 0.0-2.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 10.0
 Screened Interval (ft. bgs) 2.0-12.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-10 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 12.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-20-08
 ADWR No. 55-909618

WELL CONSTRUCTION DETAILS:

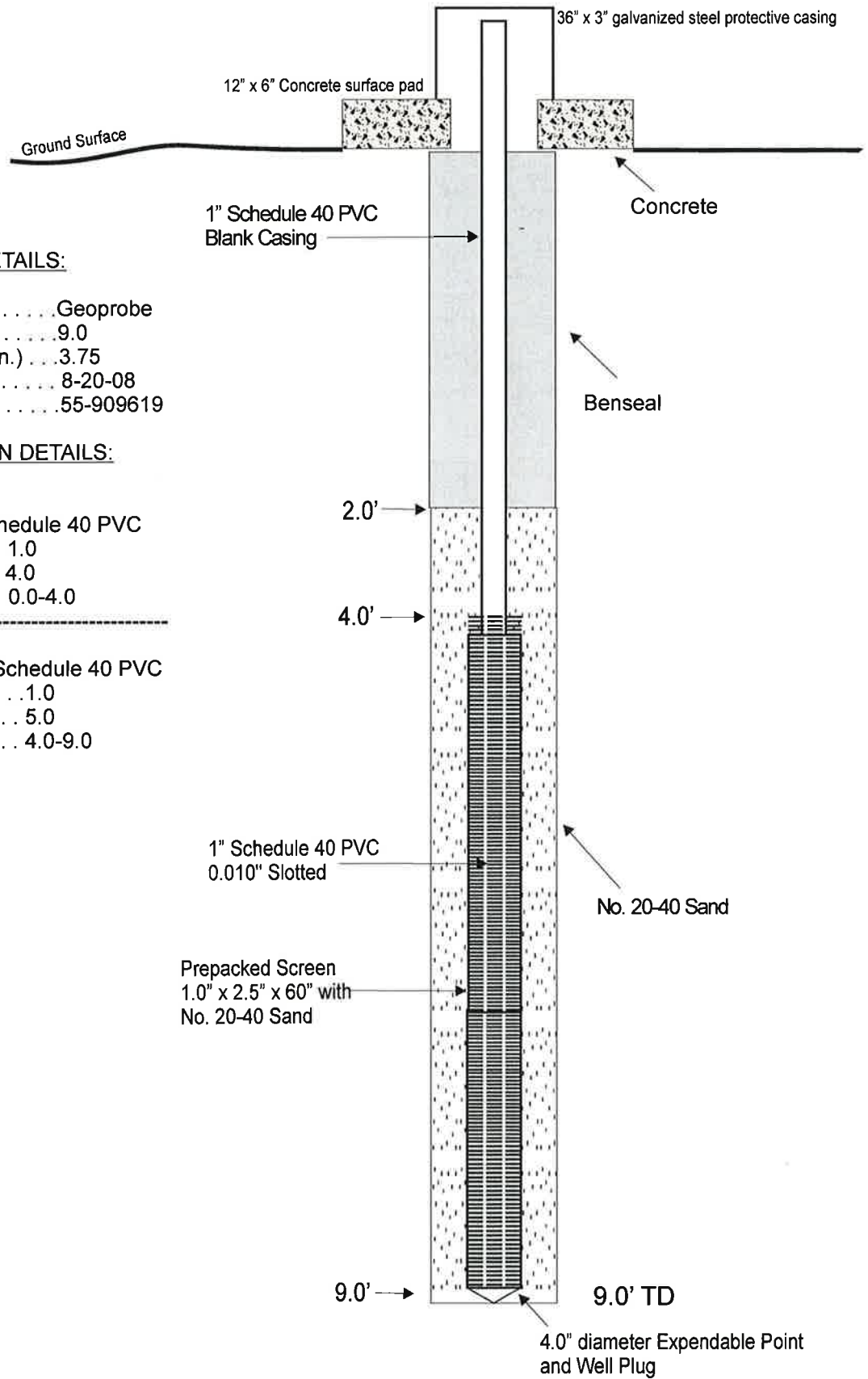
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 2.0
 Blank Interval (ft. bgs) 0.0-2.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 10.0
 Screened Interval (ft. bgs) 2.0-12.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-11 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 9.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-20-08
 ADWR No. 55-909619

WELL CONSTRUCTION DETAILS:

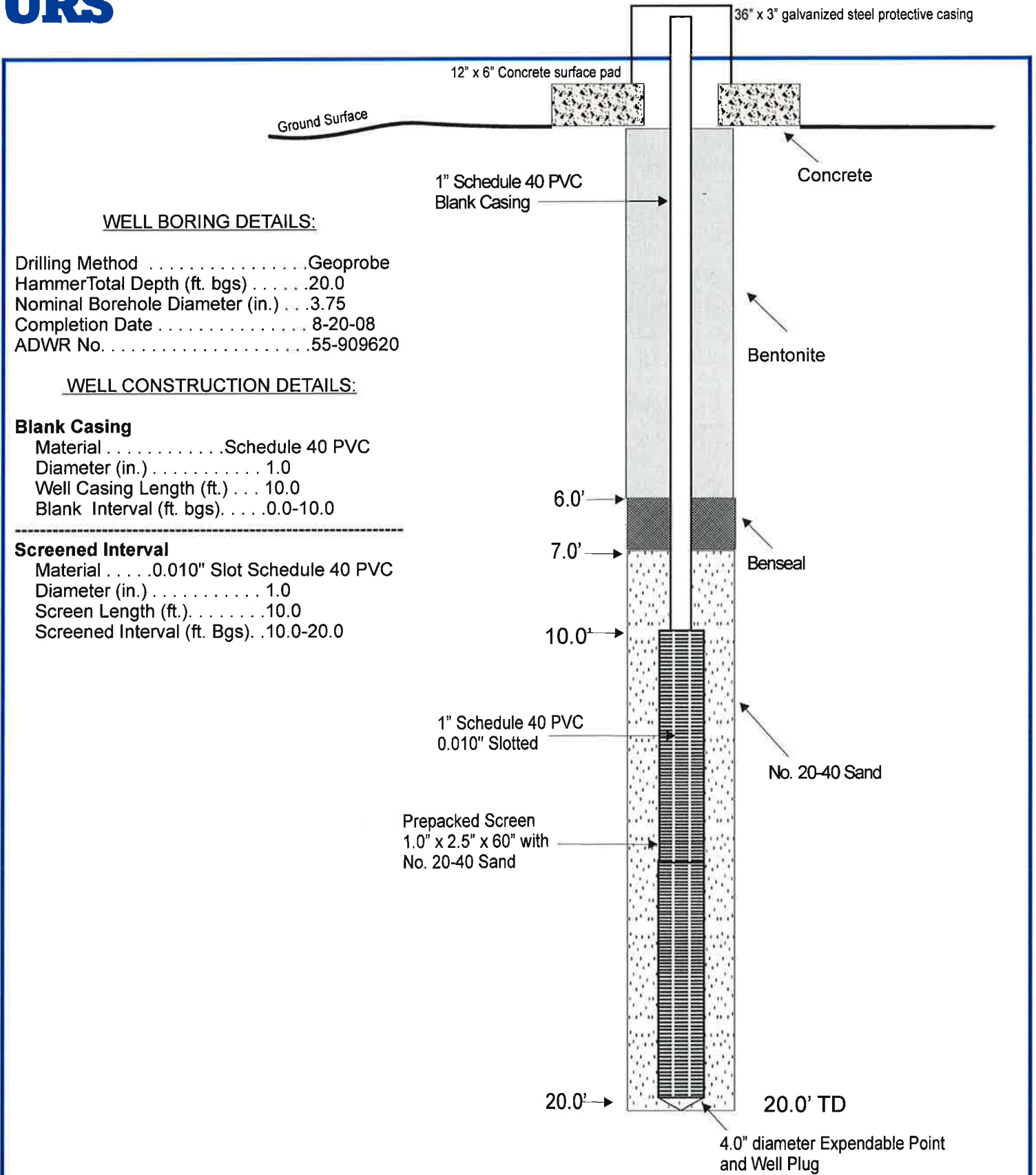
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 4.0
 Blank Interval (ft. bgs) 0.0-4.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 5.0
 Screened Interval (ft. Bgs) 4.0-9.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-12 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft. bgs) 20.0
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-20-08
 ADWR No. 55-909620

WELL CONSTRUCTION DETAILS:

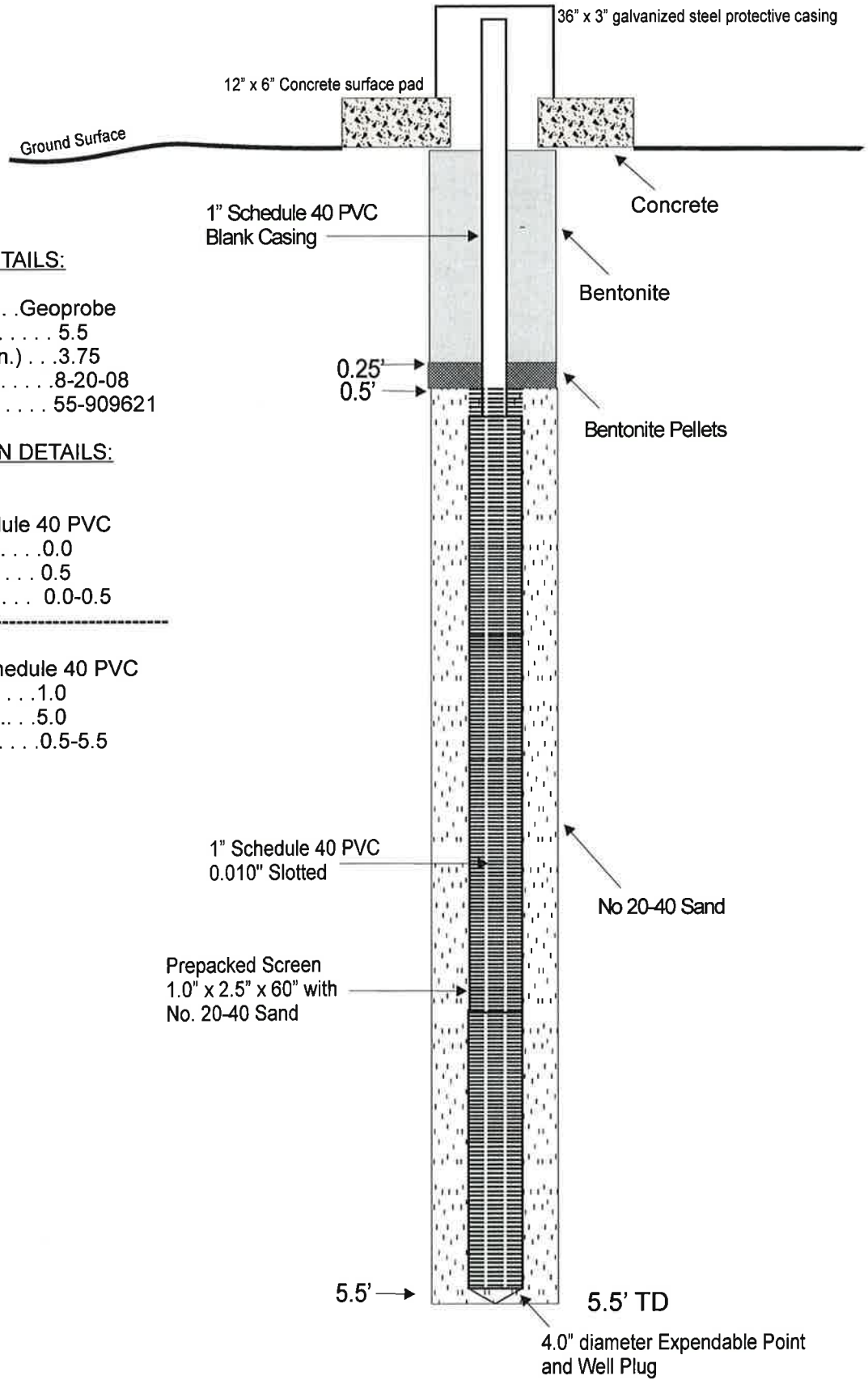
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 10.0
 Blank Interval (ft. bgs) 0.0-10.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 10.0
 Screened Interval (ft. Bgs) 10.0-20.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-13 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft.) 5.5
 Nominal Borehole Diameter (in.) 3.75
 Completion Date 8-20-08
 ADWR No. 55-909621

WELL CONSTRUCTION DETAILS:

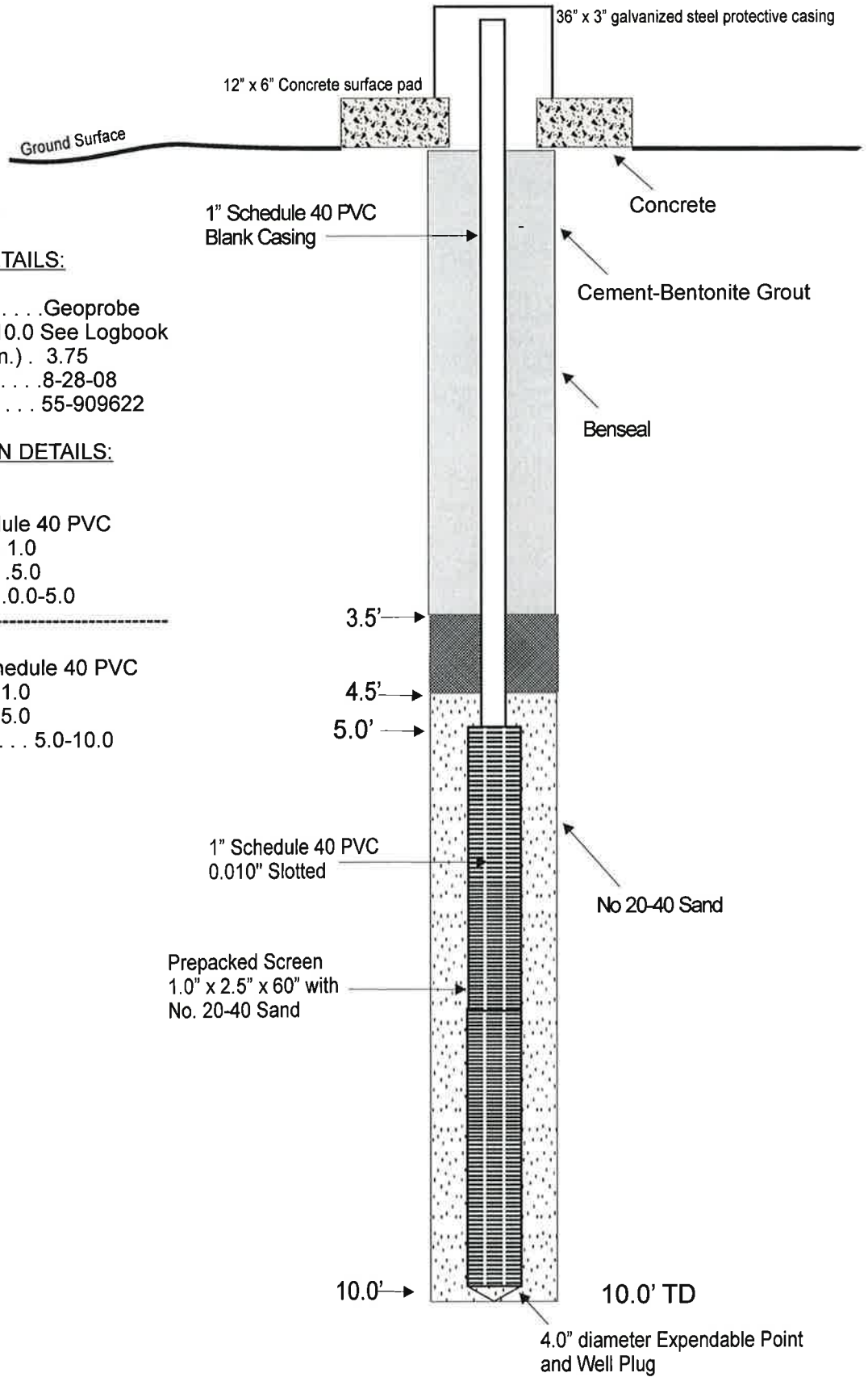
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 0.0
 Well Casing Length (ft.) 0.5
 Blank Interval (ft. bgs). 0.0-0.5

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 5.0
 Screened Interval (ft. bgs). 0.5-5.5

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-14 As Built



WELL BORING DETAILS:

Drilling Method Geoprobe
 Hammer Total Depth (ft.) 10.0 See Logbook
 Nominal Borehole Diameter (in.) . . 3.75
 Completion Date 8-28-08
 ADWR No. 55-909622

WELL CONSTRUCTION DETAILS:

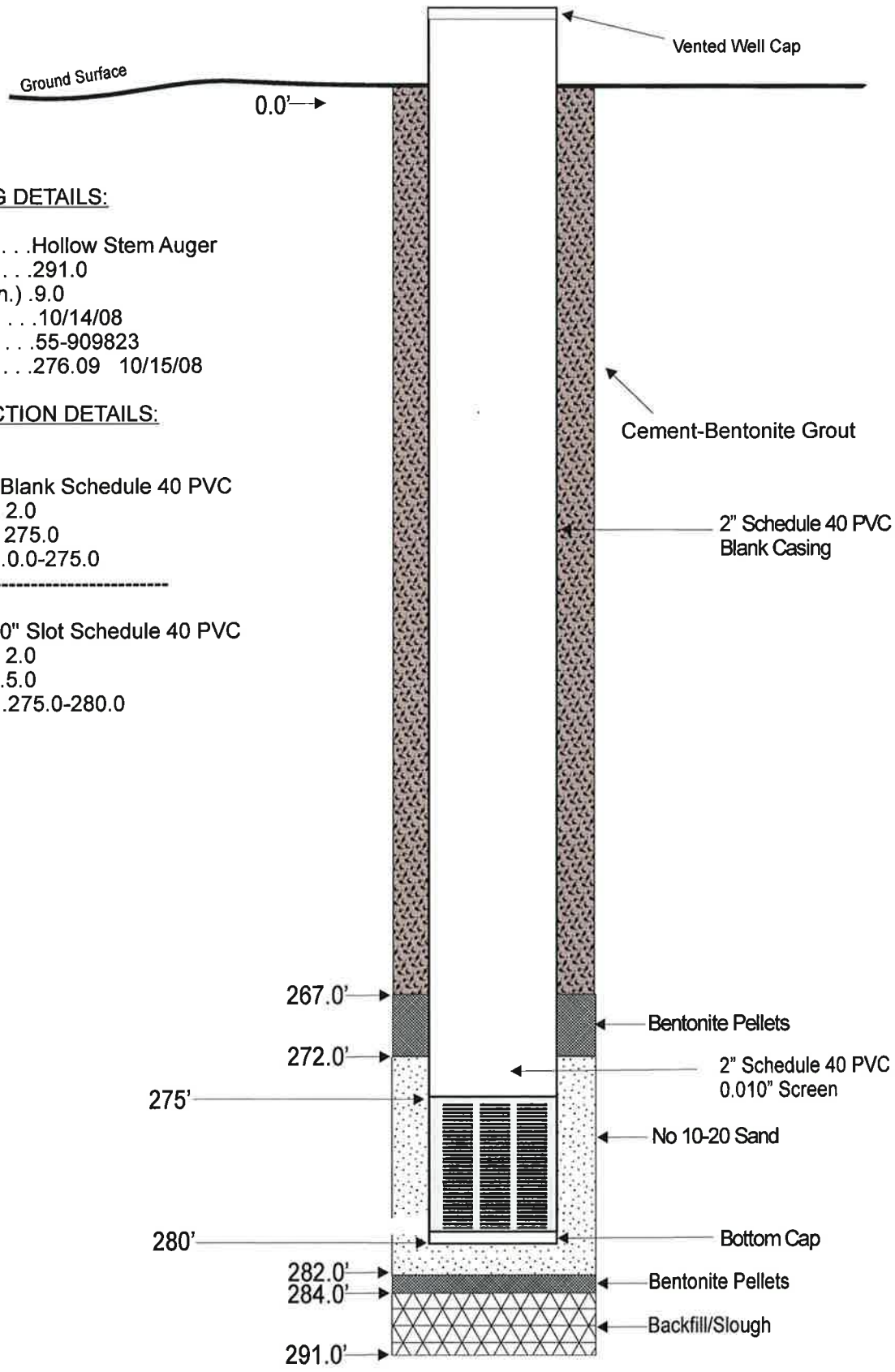
Blank Casing

Material Schedule 40 PVC
 Diameter (in.) 1.0
 Well Casing Length (ft.) 5.0
 Blank Interval (ft. bgs) 0.0-5.0

Screened Interval

Material . . . 0.010" Slot Schedule 40 PVC
 Diameter (in.) 1.0
 Screen Length (ft.) 5.0
 Screened Interval (ft. bgs) 5.0-10.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 TW-2008-15 As Built



WELL BORING DETAILS:

Drilling MethodHollow Stem Auger
 Hammer Total Depth (ft. bgs)291.0
 Nominal Borehole Diameter (in.) .9.0
 Date Completed10/14/08
 ADWR No.55-909823
 Depth to Water (ft. bgs)276.09 10/15/08

WELL CONSTRUCTION DETAILS:

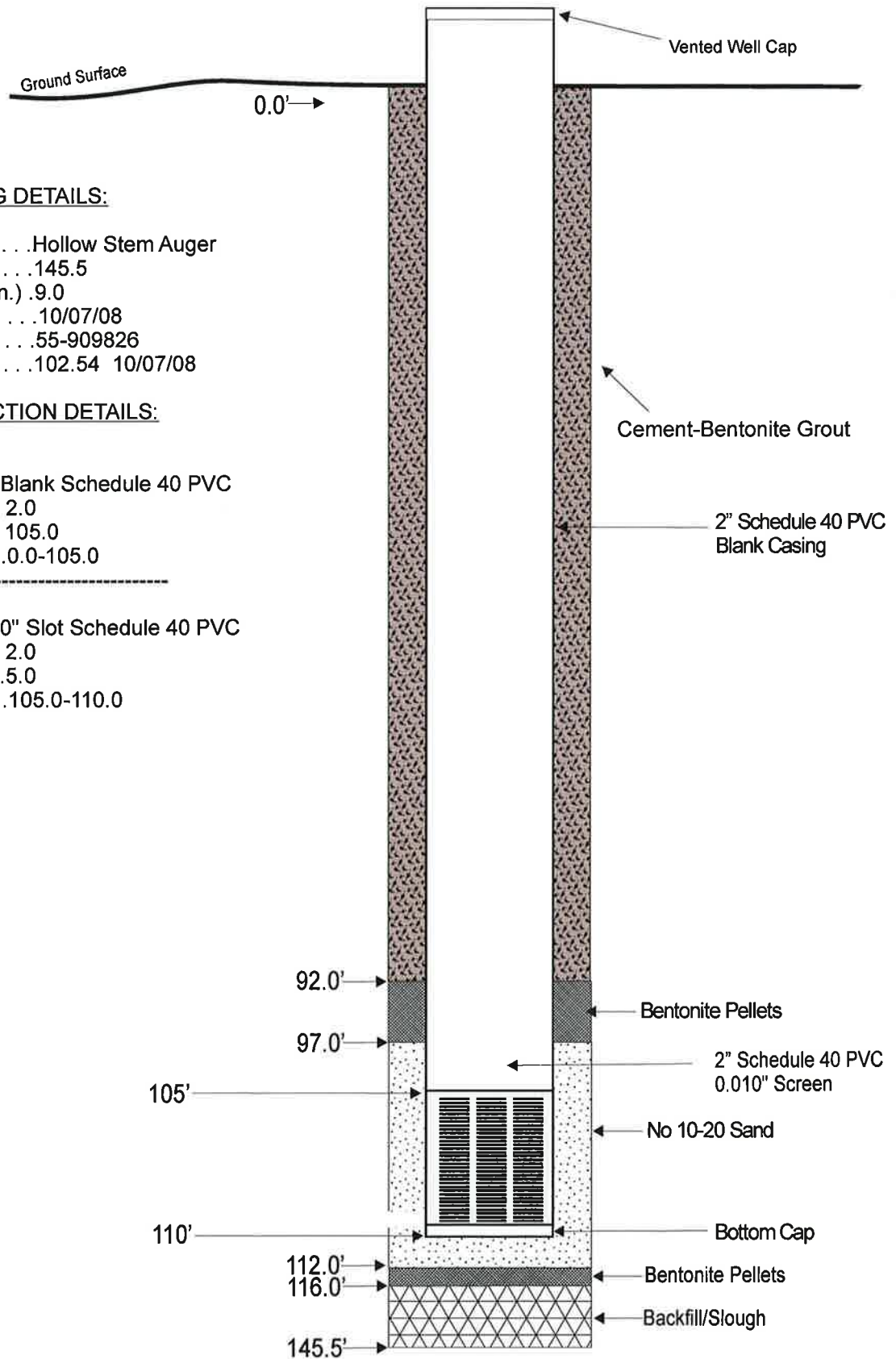
Blank Casing

MaterialBlank Schedule 40 PVC
 Diameter (in.)2.0
 Well Casing Length (ft.)275.0
 Blank Interval (ft. bgs)0.0-275.0

Screened Interval

Material0.010" Slot Schedule 40 PVC
 Diameter (in.)2.0
 Screen Length (ft.)5.0
 Screen Interval.275.0-280.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 PZ-2008-16 As Built (ST-SB-05)



WELL BORING DETAILS:

Drilling MethodHollow Stem Auger
 Hammer Total Depth (ft. bgs)145.5
 Nominal Borehole Diameter (in.) .9.0
 Date Completed10/07/08
 ADWR No.55-909826
 Depth to Water (ft. bgs)102.54 10/07/08

WELL CONSTRUCTION DETAILS:

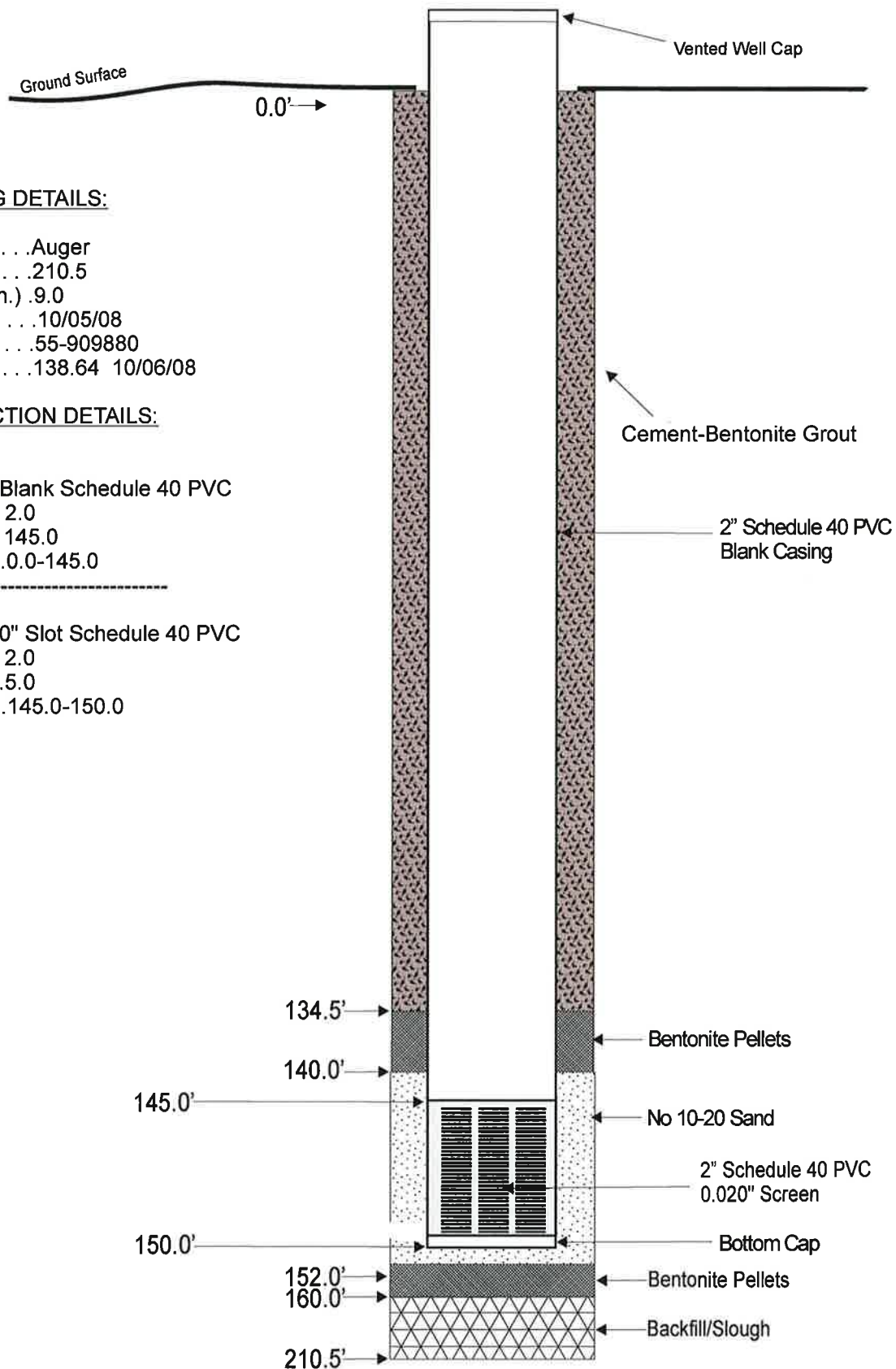
Blank Casing

MaterialBlank Schedule 40 PVC
 Diameter (in.)2.0
 Well Casing Length (ft.)105.0
 Blank Interval (ft. bgs). . . .0.0-105.0

Screened Interval

Material0.010" Slot Schedule 40 PVC
 Diameter (in.)2.0
 Screen Length (ft.)5.0
 Screen Interval.105.0-110.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 PZ-2008-19 As Built (ST-SB-04)



WELL BORING DETAILS:

Drilling Method Auger
 Hammer Total Depth (ft. bgs) 210.5
 Nominal Borehole Diameter (in.) 9.0
 Date Completed 10/05/08
 ADWR No. 55-909880
 Depth to Water (ft. bgs) 138.64 10/06/08

WELL CONSTRUCTION DETAILS:

Blank Casing

Material Blank Schedule 40 PVC
 Diameter (in.) 2.0
 Well Casing Length (ft.) 145.0
 Blank Interval (ft. bgs) 0.0-145.0

Screened Interval

Material 0.010" Slot Schedule 40 PVC
 Diameter (in.) 2.0
 Screen Length (ft.) 5.0
 Screen Interval 145.0-150.0

Freeport-McMoran Sierrita Inc.
 Green Valley, AZ
 PZ-2008-20 As Built (ST-SB-03)



333 East Wetmore, Suite 400
Tucson, AZ 85705
520-887-1800
520-887-8438 (Fax)

BORING LOG: ET-SB01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Gabe Escamillo
LOGGED BY: Mark Sollman
START DATE/TIME: 09/17/2008 12:00 AM
FINISH DATE/TIME: 09/18/2008 12:00 AM

LATITUDE (NAD83): 964088.055
LONGITUDE (NAD83): 316822.581

TOP OF GROUND ELEVATION (NAVD88): 3611.6 feet A.S.L.

COMMENTS:

RIG TYPE: CME 85
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3610	ET-SB01-4.5-6.0	SM		Tailing, very fine grained, light gray (10yr 7/1) dry, non-plastic.
10	3605	ET-SB01-9.5-11.0	SM		Color grades to light gray (2.5 yr 7/2).
15	3600	ET-SB01-14.5-16.0	SM		Color grades to light olive gray (5yr 6/2) with trace clay, slightly moist, medium stiff.
20	3595	ET-SB01-19.5-21.0	SM		Silty Sand with clay, gray (5yr 5/1), very fine sand, intermittant layers of olive gray, trace iron staining. Clayey layers usually 1/4 to 1/2 inches.
25	3590	ET-SB01-24.5-26.0	SM		As above, sand layers usually 2 to 3 inches, slightly moist.
30	3585	ET-SB01-29.5-31.0	SM		Silty Sand, Olive gray (5yr 5/2) with clayey mottling, very fine sand, trace iron staining, dark gray (5yr 5/1).
35	3580	ET-SB01-34.5-36.0	SM		
40	3575	ET-SB01-39.5-41.0	SM		10 inches of sand, olive gray, visible micro-layering approximately 1 millimeter of gray, 2 to 4 millimeters of olive gray, medium stiff. Silty fine sand with trace clay in layers and trace disseminated pyrite, dark gray (2.5yr 4/1).
45	3570	ET-SB01-44.5-46.0	SM		Thin pyrite layer, slightly moist, trace iron staining color grades to olive gray (5yr 5/2), moist, low plasticity, grades medium stiff to soft.
50	3565	ET-SB01-49.5-51.0	SM		
55	3560	ET-SB01-54.5-56.0	SM		
60	3555	ET-SB01-59.5-61.0	SM		
65	3550	ET-SB01-64.5-66.0	SM		
70	3545	ET-SB01-69.5-71.0	SW-SM		Silty Sand with gravel, black, roots, soft at 60.5' bgs, Sharp contact with sandy clay with caliche nodules trace gravel, red (2.5yr). Fine to medium silty sand, brown (7.5yr 5/6) slightly moist, native soil at 60.5 feet.
75	3540				









333 East Wetmore, Suite 400
 Tucson, AZ 85705
 520-887-1800
 520-887-8438 (Fax)

BORING LOG: ET-SB01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Gabe Escamillo
LOGGED BY: Mark Sollman
START DATE/TIME: 09/17/2008 12:00 AM
FINISH DATE/TIME: 09/18/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3535	ET-SB01-74.5-76.0	SW-SM		As above, grades to very firm.
80	3530	ET-SB01-79.5-81.0			As above, gravels range from fine to coarse up to 2 inches.
85	3525	ET-SB01-84.5-86.0			
90	3520	ET-SB01-89.5-91.0	SW-SM		
95	3515	ET-SB01-94.5-96.0			
100	3510	ET-SB01-99.5-101.0			
					Total depth = 101 feet bgs.
105	3505				
110	3500				
115	3495				
120	3490				
125	3485				
130	3480				
135	3475				
140	3470				
145	3465				
150	3460				
155	3455				
160					



333 East Wetmore, Suite 400
Tucson, AZ 85705
520-887-1800
520-887-8438 (Fax)

BORING LOG: ET-SB02

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Gabe Escamillo
LOGGED BY: Mark Sollman
START DATE/TIME: 09/19/2008 12:00 AM
FINISH DATE/TIME: 09/19/2008 12:00 AM

LATITUDE (NAD83): 961548.364
LONGITUDE (NAD83): 314666.602

TOP OF GROUND ELEVATION (NAVD88): 3606.04 feet A.S.L.

COMMENTS:

RIG TYPE: CME 85
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT

REPORT TUSCON-ENVIRONMENTAL_SIERRITA_VRP_MUL_PG | PROJECT S:\GINTBWRES\GINT\PROJECTS\TUSCON\FMI SIERRITA_VRP BORING LOGS.GPJ | LIBRARY\URS TUCSON\4.1.GLB | PRINTED 1/23/13

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
	3605		GC		Surface gravel layer.
5	3600	ET-SB02-4.5-6.0	CL		Clay, reddish yellow (7.5yr 6/6) soft, high plasticity, slightly moist.
10	3595	ET-SB02-9.5-11.0	SM		Sand, some layers of clay and silty clay, olive yellow (2.5y 6/6), very fine sand, iron staining, soft, high plasticity.
15	3590	ET-SB02-14.5-16.0	SM		
20	3585	ET-SB02-19.5-21.0	SM		As above, layers of very fine sand and sandy clay, grades to light gray (5y 7/1) loose, high plasticity, moist.
25	3580	ET-SB02-24.5-26.0	SM		
30	3575	ET-SB02-29.5-31.0	SM		As above, with layers of very fine gravelly sand, light olive gray (5y 6/2), trace clay, moist.
35	3570	ET-SB02-34.5-36.0	SM		
40	3565	ET-SB02-39.5-41.0	SM		Becomes wet.
45	3560	ET-SB02-44.5-46.0	SP		Sand with trace clay, gray to olive gray (5y 5/2), fine sand, low plasticity, loose, saturated.
50	3555	ET-SB02-49.5-51.0	SP		Sand, Olive gray (5y 5/2) with clay mottling, reddish yellow (7.5yr 6/6), fine sand, gravel layer at 51 ft, with black sandy clay and charcoal.
55	3550	ET-SB02-54.5-56.0	CL		Clay with gravel and caliche nodules, yellow red (5yr 4/6) medium to high plasticity, slightly moist, loose with fine sand and silt.
60	3545	ET-SB02-59.5-61.0	CL		
65	3540	ET-SB02-64.5-66.0	CL		
70	3535	ET-SB02-69.5-71.0	CL		
75					grades to strong brown(7.5yr 5/6).



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BORING LOG: ET-SB02

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Gabe Escamillo
LOGGED BY: Mark Sollman
START DATE/TIME: 09/19/2008 12:00 AM
FINISH DATE/TIME: 09/19/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3530	ET-SB02-74.5-76.0	CL		
85	3525	ET-SB02-79.5-81.0			
90	3520	ET-SB02-84.5-86.0			
95	3515	ET-SB02-89.5-91.0			
95	3510	ET-SB02-94.5-96.0	GC		91.0' Clayey Gravel, Brown (7.5yr 4/4), moist, high plasticity.
100	3505	ET-SB02-99.5-101.0	SW		96.0' Gravelly Sand, strong brown (7.5yr 5/6) loose, moist.
100	3505				101.0' Total depth = 101 feet bgs.
105	3500				
110	3495				
115	3490				
120	3485				
125	3480				
130	3475				
135	3470				
140	3465				
145	3460				
150	3455				
155	3450				
160					



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BORING LOG: ST-SB01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 09/24/2008 12:00 AM
FINISH DATE/TIME: 09/26/2008 12:00 AM

LATITUDE (NAD27): 972503.14
LONGITUDE (NAD 27): 306433.758

TOP OF GROUND ELEVATION: 3533.25 feet A.S.L.

COMMENTS:

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT

REPORT TUSCON-ENVIRONMENTAL_SIERRITA_VRP_MUL_PG | PROJECT-GINT@WRES-GINT@PROJECTSITUSCONFMI SIERRITA_VRP BORING LOGS.GPJ | LIBRARY URS TUCSON V4.1.GLB | PRR/ED 10/12/12

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3530	ST-SB01-4-5.5	SM		Silty Sand, very fine to fine sand, light olive gray (5y 6/2), subrounded to sub-angular, soft.
10	3525	ST-SB01-9-10.5			Grades gray (5y 6/1).
15	3520	ST-SB01-14-15.5			
20	3515	ST-SB01-19-20.5			
25	3510	ST-SB01-24-25.5	ML		19.0' Clayey Silt, dark gray, slightly plastic, slightly moist.
30	3505	ST-SB01-29-30.5			Coarser and thicker 4 - 6" layers of light to dark gray sand (5y 7/1 to 4/1), and thinner 1 - 2" layers of very fine sand and clay, non-plastic sand, very slightly moist. Clayey layers moist, low to medium plasticity.
35	3500	ST-SB01-34-35.5			Generally sharp contacts of dark gray silty sand and gray fine sand.
40	3495	ST-SB01-39-40.5			Becoming very moist to wet.
45	3490	ST-SB01-44-45.5			1" layer of pale brown fine sand (10yr 6/3).
50	3485	ST-SB01-49-50.5			Grades to very soft, gray (5y 5/1), very moist to wet.
55	3480	ST-SB01-54-55.5			First water encountered 61.8 feet.
60	3475	ST-SB01-59-60.5			Very soft and saturated.
65	3470	ST-SB01-64-65.5	Grades soft.		
70	3465	ST-SB01-69-70.5			
75	3460	ST-SB01-74-75.5			



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BORING LOG: ST-SB01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 09/24/2008 12:00 AM
FINISH DATE/TIME: 09/26/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3455	ST-SB01-79-80.5	ML		Very soft, grades soft. Grades dark gray (5y 4/1). Saturated.
85	3450	ST-SB01-84-85.5			
90	3445	ST-SB01-89-90.5			
95	3440	ST-SB01-94-95.5	CL		90.0' Silty Clay, (2.5y 6/1), moist, 6 inch layer of fine to medium subrounded sand, wet. Grades wet.
100	3435	ST-SB01-99-100.5			
105	3430	ST-SB01-104-105.5			
110	3425	ST-SB01-109-110.5			
115	3420	ST-SB01-114-115.5			
120	3415	ST-SB01-119-120.5	SM		114.0' Silty Sand, fine grained, olive gray (5y 4/2), non-plastic, wet, .5 to 1.0" layers of soft gray silty clay and 2 to 6" layers of silty fine sand, grades to saturated.
125	3410	ST-SB01-124-125.5			
130	3405	ST-SB01-129-130.5			
135	3400	ST-SB01-134-135.5			
140	3395	ST-SB01-139-140.5			
145	3390	ST-SB01-144-145.5			
150	3385	ST-SB01-149-150.5			
155	3380	ST-SB01-154-155.5	CL		147.0' Silty Clay, dark gray, soft, wet, with thin sand layers.
155	3380	ST-SB01-154-155.5			
160	3375	ST-SB01-159-160.5	SM		155.0' Silty Sand, fine grained, loose, sub-angular, saturated, dark gray (5y 4/1). 6" layer of Silty Sand, with clay, wet, soft, dark gray (5y 4/1).



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BORING LOG: ST-SB01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 09/24/2008 12:00 AM
FINISH DATE/TIME: 09/26/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
165	3370	ST-SB01-164-165.5	SM		Layer of coarser sand, fine to medium grained, sub-angular, loose. 100% fine sub-angular sand, dark gray (5y 4/1), loose, medium stiff, saturated.
170	3365	ST-SB01-169-170.5			
175	3360	ST-SB01-174-175.5			
180	3355	ST-SB01-179-180.5			
185	3350	ST-SB01-184-185.5			
190	3345	ST-SB01-189-190.5			
195	3340	ST-SB01-194-195.5			
200	3335	ST-SB01-199-200.5			
205	3330	ST-SB01-204-205.5			
210	3325	ST-SB01-209-210.5			
215	3320	ST-SB01-214-215.5			
220	3315	ST-SB01-219-220.5			
225	3310	ST-SB01-224-225.5			
230	3305	ST-SB01-229-230.5			
235	3300	ST-SB01-234-235.5	CL		Grades medium stiff to soft, moist to wet.
240	3295	ST-SB01-239-240.5			Native Soil, sandy clay with little fine to coarse gravel, light brown (7.5 yr 5/6), fine to medium grained, hard, dry, and 2 to 4 mm caliche nodules.
245	3290	ST-SB01-244-245.5			Gravels larger than 2".



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BORING LOG: ST-SB01

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 09/24/2008 12:00 AM
FINISH DATE/TIME: 09/26/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
250	3285	ST-SB01-249-250.5	CL		Two inch layer of sandy clay, plastic, brown (7.5yr 4/4), moist.
255	3280	ST-SB01-254-255.5			Silty Clay, trace fine gravel, brown (7.5yr 5/6), low to medium plasticity, stiff, slightly moist.
					Total depth at 255 feet bgs.
260	3275				
265	3270				
270	3265				
275	3260				
280	3255				
285	3250				
290	3245				
295	3240				
300	3235				
305	3230				
310	3225				
315	3220				
320	3215				
325	3210				
330	3205				



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BORING LOG: ST-SB03

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/02/2008 12:00 AM
FINISH DATE/TIME: 10/03/2008 12:00 AM

LATITUDE (NAD27): 971866.376
LONGITUDE (NAD 27): 313810.996

TOP OF GROUND ELEVATION: 3531.59 feet A.S.L.

COMMENTS: Soil boring covered to PZ-2008-20.

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3530	ST-SB03-4-5.5	CL-ML		Interbedded sandy silt, light olive gray (5y 6/2), very fine to fine sand, slight to low plasticity, slightly moist, soft and thin 1/8 - 1/2" clayey silt, dark gray, moist, high plasticity and layers of coarser/finer sand.
10	3525	ST-SB03-9-10.5			
15	3520	ST-SB03-14-15.5			
20	3515	ST-SB03-19-20.5			
25	3510	ST-SB03-24-25.5			
30	3505	ST-SB03-29-30.5			
35	3500	ST-SB03-34-35.5			
40	3495	ST-SB03-39-40.5			
45	3490	ST-SB03-44-45.5			
50	3485	ST-SB03-49-50.5			
55	3480	ST-SB03-54-55.5			
60	3475	ST-SB03-59-60.5			
65	3470	ST-SB03-64-65.5			
70	3465	ST-SB03-69-70.5			
75	3460	ST-SB03-74-75.5			

Interbedded sandy silt, light olive gray (5y 6/2), very fine to fine sand, slight to low plasticity, slightly moist, soft and thin 1/8 - 1/2" clayey silt, dark gray, moist, high plasticity and layers of coarser/finer sand.

Alternating 1 - 4" layers of dark gray clayey silt and olive gray Sandy Silt.

Rare 1/2" layer of light olive brown (2.5y 5/3) sandy silt.
Sandy layers are stiff, clayey layers are soft.

Grades wet.

3" layer of clayey silt, gray (5y 5/1), 15" layer sandy silt, light gray.
Very moist to wet.

Grades moist.
Grades very stiff in sandy layers, soft in clayey layers, sharp contact between layers.

Grades gray (5y 5/1).



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BORING LOG: ST-SB03

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/02/2008 12:00 AM
FINISH DATE/TIME: 10/03/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3455	ST-SB03-79-80.5			3" layers of hard well compacted silty sand, slightly moist.
85	3450	ST-SB03-84-85.5			2" layer containing Fe staining.
90	3445	ST-SB03-89-90.5			Clayey Silt layers, gray (5y 5/1) and sandy silt layer, light gray (5y/7/1), very moist to wet.
95	3440	ST-SB03-94-95.5			Grades wet. Water level at 97.17 feet bgs.
100	3435	ST-SB03-99-100.5			
105	3430	ST-SB03-104-105.5			Layers of clayey silt, dark gray, very moist to wet, and 4-6" layers sandy silt, fine sand, gray (5y 6/1) soft and 1 - 2" sandy clay layers, very fine sand and darker gray (5y 6/1), ranging to light olive gray (5y 6/2).
110	3425	ST-SB03-109-110.5			
115	3420	ST-SB03-114-115.5			
120	3415	ST-SB03-119-120.5			
125	3410	ST-SB03-124-125.5			Moist to very moist.
130	3405	ST-SB03-129-130.5	CL-ML		Clayey layers, dark gray (2.5y 4/1), sandy layers, gray (2.5y 6/1) with sharp layer contact.
135	3400	ST-SB03-134-135.5			
140	3395	ST-SB03-139-140.5			Grades moist, mostly silty sand, fine sand, with no clay layers.
145	3390	ST-SB03-144-145.5			Sand Silt, olive gray (5y 5/2) interlaced with gray clayey layers.
150	3385	ST-SB03-149-150.5			Spoon sampler is dripping wet. Sandy and clayey layers range from light olive gray (5y 6/2) to gray (5y 5/1), sandy layers are medium stiff, clayey layers are soft.
155	3380	ST-SB03-154-155.5			
160	3375	ST-SB03-159-160.5			



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BORING LOG: ST-SB03

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/02/2008 12:00 AM
FINISH DATE/TIME: 10/03/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
165	3370	ST-SB03-164-165.5			Sandy Silt, dark gray (2.5y 4/1), very fine to fine grained, medium stiff, non-plastic, moist.
170	3365	ST-SB03-169-170.5			
175	3360	ST-SB03-174-175.5	CL		2" layer of sandy silt, only very fine sand.
180	3355	ST-SB03-179-180.5			Grades gray (2.5y 5/1).
185	3350	ST-SB03-184-185.5			
190	3345	ST-SB03-189-190.5	SM		Native Soil - Silty Sand, dark brown (7.5yr 3/2), fine to coarse sand, loose, very slightly moist with fine gravel and apparent organic matter.
195	3340	ST-SB03-194-195.5			
200	3335	ST-SB03-199-200.5			Clay, fine to coarse gravel, grades to strong brown (7.5yr 4/6) and no organic matter, grades moist, hard with caliche between grains. Grades strong brown (7.5yr 5/6) with clay, medium to high plasticity, grades yellowish red (5yr 5/6) and very stiff.
205	3330	ST-SB03-204-205.5	CL		
210	3325	ST-SB03-209-210.5			
215	3320				Total depth = 210.5 feet bgs.
220	3315				
225	3310				
230	3305				
235	3300				
240	3295				
245	3290				



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BORING LOG: ST-SB04

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/05/2008 12:00 AM
FINISH DATE/TIME: 10/06/2008 12:00 AM

LATITUDE (NAD27): 968755.909
LONGITUDE (NAD 27): 315237.456

TOP OF GROUND ELEVATION: 3533.83 feet A.S.L.

COMMENTS: Soil boring covered to PZ-2008-19.

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT

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DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3530	ST-SB04-4-5.5	CL-ML		Silty Sand, gray (5y 5/1), very fine to fine sand, loose, soft, moist with two thin 1/4" layers of slightly darker gray silty clay, very soft, medium plasticity.
10	3525	ST-SB04-9-10.5			Layer of silty sand, trace disseminated pyrite, dark gray with greenish tint.
15	3520	ST-SB04-14-15.5			2" layer silty sand, fine to medium sand, olive gray (5y 5/2) and clayey sand, gray (5/1), very fine sand.
20	3515	ST-SB04-19-20.5			
25	3510	ST-SB04-24-25.5			Layering changes nearly every inch between sandy to clayey layers.
30	3505	ST-SB04-29-30.5			Olive gray sandy layers are medium stiff, clayey layers are soft.
35	3500	ST-SB04-34-35.5			Rare thin 1/2" layer of light gray silt, possible eolian deposition.
40	3495	ST-SB04-39-40.5			Rare 3/8" thin light gray to white layer of weakly cemented silt, possible crust layer.
45	3490	ST-SB04-44-45.5			Grades to light olive gray (5y 6/2).
50	3485	ST-SB04-49-50.5			6" layer silty sand, gray (2.5y 6/1), fine sand, 3" layer silty sand, very fine sand, dark gray (5y 4/1) and 1/8" layer clayey silt, light gray.
55	3480	ST-SB04-54-55.5	SM-CL		Thin 1" saturated zone of fine sand overlying 3/8" clay layer, otherwise moist only.
60	3475	ST-SB04-59-60.5			
65	3470	ST-SB04-64-65.5			5" layer of sand, no silt or clay, light brownish gray (2.5y 6/2) fine to medium, underlain by 3" layer of clay, gray (2.5y 5/1), medium to high plasticity.
70	3465	ST-SB04-69-70.5			
75	3460	ST-SB04-74-75.5			Silty Sand, gray (2.5y 5/1), very fine to fine sand, separated in layers 2-4" thick, with layers 1/4 - 2" layers of silty clay, very fine disseminated pyrite persists.



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BORING LOG: ST-SB04

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/05/2008 12:00 AM
FINISH DATE/TIME: 10/06/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3455	ST-SB04-79-80.5			Silty Sand, grades lighter gray (5y 6.1) with slight greenish tint, fine.
85	3450	ST-SB04-84-85.5			Silty Sand, gray (5y 6/1), very fine, layers above and below 4" fine light olive gray layer of fine sand.
90	3445	ST-SB04-89-90.5			1/8" layer of concentrated pyrite, silty sand, dark gray above the silty sand and light gray below the silty sand.
95	3440	ST-SB04-94-95.5			Silty Sand, light olive gray and gray (5y 5/1) very fine, moist, and 2" sand, fine to medium sand, wet, overlaying clayey silt, gray.
100	3435	ST-SB04-99-100.5	SM-CL		8" layer fine to medium sand, saturated, overlaying silty clay, dark gray, grades olive gray (5y 5/2) for all sediments.
105	3430	ST-SB04-104-105.5			
110	3425	ST-SB04-109-110.5			Grades gray (5y 5/1).
115	3420	ST-SB04-114-115.5			
120	3415	ST-SB04-119-120.5			Silty Sand, dark gray (2.5y 4/1) very fine sand, soft to medium stiff, non-plastic, moist with 3/4" silty clay, high plasticity.
125	3410	ST-SB04-124-125.5			Native at 122 feet bgs, gravelly clay with fine to coarse sand, strong brown (7.5yr 5/6), hard, loose, medium to high plasticity, gravel fine to coarse, gravels up to 2". Trace caliche and gypsum.
130	3405	ST-SB04-129-130.5			
135	3400	ST-SB04-134-135.5	CL		Grades very stiff and strong brown (7.5yr 4/6).
140	3395	ST-SB04-139-140.5			Broken gravel clast in spoon sampler indicates gravel larger than 2".
145	3390	ST-SB04-144-145.5			Grades very stiff to hard.
150	3385				Total depth = 145.5 feet bgs.
155	3380				
160	3375				



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BORING LOG: ST-SB05

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

LATITUDE (NAD27): 973697.599
LONGITUDE (NAD 27): 308441.899

TOP OF GROUND ELEVATION: 3541.25 feet A.S.L.

COMMENTS: Soil boring covered to PZ-2008-16.

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Auto Hammer, Split Spoon/SPT and GUS Sam

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3540				Sandy Silt, very soft, gray (2.5y 6/1) non-plastic, very fine to fine sand, moist.
10	3535	ST-SB05-9-11 GUS ST-SB05-11-12.5			
15	3530				
20	3525	ST-SB05-19-21 Gus ST-SB05-21-22.5			
25	3520				
30	3515	ST-SB05-30-31.5			Sandy Silt, dark gray (2.5y 4/1) very soft non-plastic, very fine sand, very moist, 1" layer of silty clay, high plasticity, underlain by sandy silt, gray (2.5y 6/1).
35	3510		ML		
40	3505	ST-SB05-39-41 Gus ST-SB05-41-42.5			1 - 4" layers sandy silt, light gray (5y 7/2) and gray (5y 6/1) lighter gray, slightly coarse grain.
45	3500				
50	3495				
55	3490				
60	3485	ST-SB05-60-61.5			Sandy Silt, light gray to gray (5y 6/1), soft, non-plastic, moist and two 1/2" layers of clayey silt, darker gray (5y 7/1), medium plasticity.
65	3480				
70	3475				
75	3470				



333 East Wetmore, Suite 400
Tucson, AZ 85705
520-887-1800
520-887-8438 (Fax)

BORING LOG: ST-SB05

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3465	ST-SB05-79-81 Gus	ML		Sandy Silt, light gray (5y 7/1) soft, moist, no clay layers.
	3460	ST-SB05-81-82.5			
85	3455				
90	3450	ST-SB05-89-91 Gus			3" layer of sandy silt, very fine to fine sand, gray (5y 5/1) with trace clay and slightly plastic overlain 1" layer of sandy silt, light gray, non-plastic, overlying layers ranging form 1/2 to 2" of same material.
	3445	ST-SB05-91-92.5			
95	3440				
100	3440	ST-SB05-99-101 Gus			
105	3435	ST-SB05-101-102.5			2" layer of Clayey Silt, dark gray (5Y 3/1), very moist, medium plasticity, overlying 1/2 - 3" sandy silt, medium stiff, moist, ranging from gray (5y 5/1) to dark gray (5y 4/1), bottom 2" are sandy silt, very fine to fine sand, light olive gray (5y 6/2).
110	3430				
115	3425				
120	3420	ST-SB05-119-120.5	4" layer of Sandy Silt, dark gray (5y 4/1), moist, non-elasticity, overlying 8" sandy silt, very fine to fine sand, light olive gray (5y 6/2), stiff, 2" layer sandy silt, very dark gray (5y 3/1), very stiff, very fine sand.		
125	3415				
130	3410				
135	3405				
140	3400	ST-SB05-139-141 Gus	6" layer of Sandy Silt, olive gray (5y 5/2), fine to medium subangular, stiff, moist, 4" layer sandy silt, dark gray (2.5y 4/1) very fine sand, 5" layer sandy silt, very fine to fine sand, gray (2.5y 5/1).		
	3395	ST-SB05-141-142.5			
145	3395				
150	3390		3" layer clayey silt, gray (2.5y 6/1), low to medium plasticity, very stiff.		
155	3385				
160		ST-SB05-159-161 Gus	9" layer sandy silt, fine sand, 3" layer clayey silt, gray (10yr 5/1), slightly		



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BORING LOG: ST-SB05

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
165	3380	ST-SB05-161-162.5	ML		moist, very stiff, 6" layer sandy silt with trace clay, gray (5y 5/1), slight plasticity, stiff.
170	3375				
175	3370				
180	3365				
185	3360				
185	3355	ST-SB05-185.5-187			185.0' Sandy Silt, fine sand, dark gray (2.5y 4/1) medium dense, non-plastic, moist. Layered 3" fine sands and 3" silts throughout the 17" sample.
190	3350	ST-SB05-189-191 Gus			
195	3345				
200	3340	ST-SB05-199-201 Gus ST-SB05-201-202.5	SM		Sandy Silt, fine sand, dark gray (2.5y 4/1) dense, non-plastic, moist. Some 1-2" layers of silty clay, slight plasticity.
205	3335				
210	3330				
215	3325				
220	3320				
225	3315				
230	3310				
235	3305				
240	3300				
245	3295				



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BORING LOG: ST-SB05

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/08/2008 12:00 AM
FINISH DATE/TIME: 10/08/2008 12:00 AM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
250	3290	ST-SB05-249-251 Gus ST-SB05-251-252.5			Sandy Silt, dark gray (2.5y 4/1), fine sand, dense, non-plastic, moist to wet, no cementation. Top 6" silt, bottom 1' fine sand, wet.
255	3285				
260	3280				
265	3275				
270	3270				
275	3265		SM		
280	3260				
285	3255				
290	3250				
295	3245				
300	3240				
305	3235				
310	3230				
315	3225				
320	3220				
325	3215				
330	3210				Native Alluvium, Total depth = 291.1 feet bgs.



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BORING LOG: ST-SB06

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/21/2008 12:00 AM
FINISH DATE/TIME: 10/28/2008 02:10 PM

LATITUDE (NAD27): 94790.216
LONGITUDE (NAD 27): 308404.458

TOP OF GROUND ELEVATION: 3535.93 feet A.S.L.

COMMENTS:

RIG TYPE: CME 1250 Track Mount
DRILLING METHOD: Auger
SAMPLING METHOD: Split Spoon/SPT and Gus Sampler

REPORT TUSCON-ENVIRONMENTAL_SIERRITA_VRP_MUL_PG | PROJECT-GINT@WRES-GINT\PROJECT\SITUSCON\FMI SIERRITA_VRP BORING LOGS.GPJ | LIBRARY URS TUCSON V4.1.GLB | PRR/ED 10/12/12

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
5	3535	ST-SB06-4-5.5 ST-SB06-4-6 Gus	GW		Gravelly Sand, yellowish red (5yr 5/6) (road base), fine to coarse sand and gravel.
10	3530	ST-SB06-9-10.5			Sandy Silt, light gray (2.5y 7/1), very fine grained, hard, non-plastic, slightly moist, grades to gray (2.5y 6/1), very stiff grades to stiff.
15	3525	ST-SB06-14-16 Gus ST-SB06-16-17.5	ML		Silty Sand, light olive gray (5y 6/2), very fine to fine, non-plastic, moist, soft, sharp contact with silty sand, light yellowish brown (2.5y 6/3), very fine, stiff, slightly moist.
20	3520	ST-SB06-20-21.5			As above, grades to gray (2.5y 6/1), medium stiff, slight trace of yellowish brown staining (10yr 5/8), grades to gray (5y 6/1) stiff.
25	3515	ST-SB06-24-26 Gus			Alternating layers of sandy silt, gray (5y 6/1) moderately firm, and light olive gray, very fine grained, hard.
30	3510	ST-SB06-34-36 Gus ST-SB06-36-37.5	SM		Prominent layering of silt, gray (5y 6/1), very fine; sandy silt light olive gray (5y 6/2), fine; and sandy, slit, trace clay, gray (5y 5/1), very fine.
35	3505	ST-SB06-44-46 Gus ST-SB06-46-47.5	ML		Clay, gray (2.5 y 6/1) moist, high plasticity, soft.
40	3500	ST-SB06-49-50.5			Sandy Silt, very fine to fine, moderately firm, moist.
45	3495	ST-SB06-54-55.5			Silty Sand, dark gray, fine to medium fine, moist, with disseminated pyrite, dark gray (5y 4/1) and light gray (5y 7/1).
50	3490	ST-SB06-59-61 Gus ST-SB06-61-62.5	ML		
55	3485	ST-SB06-64-65.5	CH		
60	3480	ST-SB06-69-70.5	ML		
65	3475	ST-SB06-74-76 Gus	SM		
70	3470				
75	3465				



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BORING LOG: ST-SB06

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/21/2008 12:00 AM
FINISH DATE/TIME: 10/28/2008 02:10 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
80	3460	ST-SB06-79-80.5	SM		Silty Sand, dark gray, fine to medium fine, moist, with disseminated pyrite, dark gray (5y 4/1) and light gray (5y 7/1).
85	3455	ST-SB06-84-88 Gus			
90	3450	ST-SB06-89-93 Gus			
95	3445	ST-SB06-94-98 Gus ST-SB06-97-98.5			
100	3440				
105	3435	ST-SB06-104-105.5	ML		Sandy Silt, gray (5y 6/1), very fine grained with layer of silt, dark gray (5y 4/1), moderately firm, slightly moist.
110	3430	ST-SB06-109-110.5			
115	3425	ST-SB06-114-115.5	CL-ML		Clayey Silt, light olive brown, soft, medium plastic, grades to moderately firm, grades to gray (2.5y 5/1).
120	3420	ST-SB06-119-120.5			
125	3415	ST-SB06-124-125.5	ML		Sandy Silt, gray (5y 5/1), very fine with layers of olive gray (5y 5/2), moist, moderately firm.
130	3410	ST-SB06-129-130.5			
135	3405	ST-SB06-134-135.5			
140	3400	ST-SB06-139-140.5	SM		Silty Sand, olive gray (5y 5/2), very fine to fine, moderately firm to loose; with layers of sandy silt, gray (2.5y 5/1), very fine, moderately firm; and layers of clayey silt, dark gray (2.5y 5/1), low plasticity, soft, all slighty moist.
145	3395	ST-SB06-144-145.5			
150	3390	ST-SB06-149-151 Gus			
155	3385	ST-SB06-151.5-153			
160	3380	ST-SB06-154-155.5			
		ST-SB06-159-160.5			



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LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/21/2008 12:00 AM
FINISH DATE/TIME: 10/28/2008 02:10 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS	
165	3375	ST-SB06-164-165.5	SM		Silty Sand, olive gray (5y 5/2), very fine to fine, moderately firm to loose; with layers of sandy silt, gray (2.5y 5/1), very fine, moderately firm; and layers of clayey silt, dark gray (2.5y 5/1), low plasticity, soft, wet.	
170	3370	ST-SB06-169-170.5			Silty Sand, light olive gray (5y 6/2), with layers of gray (5y 5/1) and dark gray (5y 4/1), soft to very firm, very fine to medium grained, slightly moist.	
175	3365	ST-SB06-174-175.5				
180	3360	ST-SB06-179-180.5				
185	3355	ST-SB06-184-185.5	SM			
190	3350	ST-SB06-189-190.5				
195	3345	ST-SB06-194-195.5				
200	3340	ST-SB06-199-201 Gus ST-SB06-201-202.5				
205	3335	ST-SB06-204-205.5			205.0'	Silty Sand, light olive gray (5y 6/2), with layers of gray (5y 5/1) and dark gray (5y 4/1), soft to very firm, very fine to medium grained, slightly moist.
210	3330	ST-SB06-209-210.5				
215	3325	ST-SB06-214-215.5	SM			
220	3320	ST-SB06-219-220.5				
225	3315	ST-SB06-224-225.5		224.0'	Sandy Silt, gray (2.5y 5/1), to dark gray (5y 4/1), very fine, soft to very firm; with layers of silty sand, gray (2.5y 5/1), very fine, firm to moderately firm, and silty clay, dark gray (5y 4/1), medium to high plasticity, all slightly moist.	
230	3310	ST-SB06-229-230.5				
235	3305	ST-SB06-234-235.5	ML			
240	3300	ST-SB06-239-240.5		240.0'	Sandy Silt, gray (2.5y 5/1), to dark gray (5y 4/1), very fine, soft to very firm; with layers of silty sand, gray (2.5y 5/1), very fine, firm to moderately firm, and silty clay, dark gray (5y 4/1), medium to high plasticity, all slightly moist.	
245	3295	ST-SB06-244-245.5				
	3290					



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BORING LOG: ST-SB06

PROJECT: Voluntary Remediation Program
CLIENT: FMI
LOCATION: Sierrita
URS PROJECT #: 24096838

DRILLING CONTRACTOR: Yellow Jacket
DRILLER: Joe Lagana
LOGGED BY: Mark Sollman
START DATE/TIME: 10/21/2008 12:00 AM
FINISH DATE/TIME: 10/28/2008 02:10 PM

DEPTH BELOW SURFACE (FT)	ELEVATION (FT)	SAMPLE COLLECTED (Identification)	USCS	GRAPHIC	LITHOLOGIC DESCRIPTION AND REMARKS
250	3285	ST-SB06-249-251 Gus	ML		
		ST-SB06-251-252.5			
255	3280		ML		
260	3275	ST-SB06-259-260.5			
265	3270	ST-SB06-264-265.5	ML		
270	3265	ST-SB06-269-270.5			
275	3260	ST-SB06-274-275.5	ML		270.0' Sandy Silt, gray (2.5y 5/1), to dark gray (5y 4/1), very fine, soft to very firm; with layers of silty sand, gray (2.5y 5/1), very fine, firm to moderately firm, and silty clay, dark gray (5y 4/1), medium to high plasticity, all slightly moist.
280	3255	ST-SB06-279-280.5			
285	3250	ST-SB06-284-285.5	ML		280.0' Sandy Silt, gray (2.5y 5/1), to dark gray (5y 4/1), very fine, soft to very firm; with layers of silty sand, gray (2.5y 5/1), very fine, firm to moderately firm, and silty clay, dark gray (5y 4/1), medium to high plasticity, all slightly moist.
290	3245	ST-SB06-289-290.5			
295	3240	ST-SB06-294-295.5	ML		
300	3235	ST-SB06-300-302 Gus			
305	3230	ST-SB06-304-305.5	SW		303.0' Well Graded Sand with gravel, dark reddish gray (5yr 4/2), with layers of reddish brown (2.5 yr 4/4) and yellowish brown (10yr 5/8), very dense, iron-oxide staining, moist.
310	3225	ST-SB06-309-310.5	SP-SC		306.0' Poorly Graded Sand with clay trace gravel, reddish brown (2.5yr 4/4) to dark reddish gray (5yr 4/2), very dense, low plasticity, moist to wet.
315	3220	ST-SB06-314-315.5	SP-SC		315.0' Poorly Graded Sand with clay trace gravel, red brown (2.5yr 4/4) to red gray (5yr 4/2), very dense, low plasticity, moist to wet.
320	3215	ST-SB06-319-320.5			
325	3210	ST-SB06-324-325.5			325.5' Total depth = 325.5 feet bgs.
330	3205				

Attachment 2 Well Development Logs

Appendix C
Well Development Records

INVESTIGATION-DERIVED WASTE INVENTORY SHEET

Site: FMI SIERRITA

No. of Drums: NA

Inventory Date: 9-3-08 to 9-5-08

Well DEVELOPMENT

Waste Source	Drum/Container ID Number	Date Generated	Contents (Solid, Liquids, etc.)	Approximate Volume	Drum Location/Comments
MW-02		9-3-08	WATER	50 GAL	
MW-03		9-3-08	WATER	40 GAL	
MW-04		9-3-08	WATER	49 GAL	
MW-05		9-3-08	WATER	43 GAL	
MW-06		9-3-08	WATER	35 GAL	
MW-07		9-4-08	WATER	29 GAL	
MW-08		9-4-08	WATER	20 GAL	
MW-09		9-4-08	WATER	38 GAL	
MW-10		9-4-08	WATER	37 GAL	
MW-11		9-4-08	WATER	49 GAL	
					DISCHARGED INTO DUVAL CANAL
MW-01		9-4-08	WATER	27 GAL	
MW-02		9-4-08	WATER	53 GAL	
MW-03		9-4-08	WATER	23 GAL	
MW-04		9-4-08	WATER	45 GAL	
MW-05		9-4-08	WATER	47 GAL	
MW-06		9-4-08	WATER	43 GAL	
MW-07		9-5-08	WATER	34 GAL	
MW-08		9-5-08	WATER	14 GAL	
MW-09		9-5-08	WATER	31 GAL	
MW-10		9-5-08	WATER	24 GAL	
MW-11		9-5-08	WATER	50 GAL	
MW-01		9-5-08	WATER	27 GAL	

DISCHARGED INTO DUVAL CANAL

INVESTIGATION-DERIVED WASTE INVENTORY SHEET

WELL DEVELOPMENT

Site: FM1 SIERRITA

No. of Drums: NA

Inventory Date: 9-17-08 to 9-19-08

Waste Source	Drum/Container ID Number	Date Generated	Contents (Solid, Liquids, etc.)	Approximate Volume	Drum Location/Comments
MW-12		9-17-08	WATER	45.0 GAL	
MW-13		9-17-08	WATER	55.0	
MW-15		9-17-08	WATER	17.0	
		9-18-08			DISCHARGE 22.5 GAL TO LOCAL CANAL
MW-12		9-18-08	WATER	8.0	
MW-13		9-18-08	WATER	46.0	
MW-15		9-18-08	WATER	11.0	
MW-01		9-18-08	WATER	33.0	
MW-02		9-18-08	WATER	62.0	
MW-03		9-18-08	WATER	53.0	
MW-04		9-18-08	WATER	49.0	
MW-05		9-19-08	WATER	40.0	
MW-06		9-19-08	WATER	41.0	
		9-19-08			DISCHARGE 350 GAL INTO LOCAL CANAL
MW-07		9-19-08	WATER	26.0	
MW-08		9-19-08	WATER	24.0	
MW-09		9-19-08	WATER	39.0	
MW-10		9-19-08	WATER	34.0	
MW-11		9-19-08	WATER	45.0	
		9-19-08			DISCHARGES 200 GAL INTO LOCAL CANAL

SAMPLING DATA SHEET

Well ID: MD2008-01 Screen Interval: 69-85 Depth to Water: 94.8 / 95.06
 Project Name: EM Well Diameter: 4.08 Date Measured: 08.11.08.13 Page 1 of 1
 Project Number: LAMOTTE Total Well Depth: 88.1 Measured From: 7.97 to 10.10
 Task Code: 1002L Dedicated Pump: R.91 x 3 = 38.80 Well Volume: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

PH: 4.00 = 7.0 at 0.05 °C pH: 7.0 = 10.05 at 0.08 °C pH: 10.00 = 14.80 at 0.50 °C
 Turbidity: LAMOTTE NTU: 0 = Reading 0.05 NTU: 1 = Reading 0.08 Other: NTU: 14.80 = Reading 0.50
 Conductivity: Standard umhos/cm at 25 °C Reading umhos/cm at °C
 Dissolved Oxygen: Meter mg/L at °C PID: Calibration Gas Type Span Reading Reading
 Date / Time of Calibration(s): FACTORY CAL (EURED)
 Instrument Model and Serial Number(s): Equipco YST 6910

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol: TOTAL Vol. - WATER COLLECT	Depth to Water
<u>11:04</u>		<u>2.08</u>	<u>15.7</u>	<u>65.9</u>	<u>6.02</u>	<u>744.9</u>	<u>910.3</u>	<u>4.0</u>	<u>DR. SLEET</u>	<u>" "</u>
<u>11:07</u>		<u>3.60</u>	<u>14.50</u>	<u>65.9</u>	<u>6.58</u>	<u>778.8</u>	<u>340.6</u>	<u>13.0</u>	<u>" "</u>	<u>" "</u>
<u>11:11</u>		<u>3.61</u>	<u>14.50</u>	<u>65.9</u>	<u>6.58</u>	<u>778.8</u>	<u>515.3</u>	<u>14.0</u>	<u>" "</u>	<u>" "</u>
<u>11:15</u>		<u>3.62</u>	<u>14.34</u>	<u>65.9</u>	<u>6.58</u>	<u>778.8</u>	<u>457.1</u>	<u>14.0</u>	<u>" "</u>	<u>" "</u>
<u>11:25</u>		<u>5.09</u>	<u>14.87</u>	<u>65.9</u>	<u>6.58</u>	<u>778.8</u>	<u>750.9</u>	<u>5.0</u>	<u>" "</u>	<u>" "</u>
<u>11:28</u>		<u>4.15</u>	<u>14.40</u>	<u>65.9</u>	<u>6.58</u>	<u>778.8</u>	<u>510.0</u>	<u>13.0</u>	<u>" "</u>	<u>" "</u>
<u>11:30</u>		<u>4.15</u>	<u>14.24</u>	<u>65.9</u>	<u>6.58</u>	<u>778.8</u>	<u>123.9</u>	<u>13.0</u>	<u>" "</u>	<u>" "</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LAMOTTE
 2454.0
 3001.0
 7000.0
 5000.0
 1128.0
 860.0
 1600.0

SAMPLING INFORMATION

Sampling Method: Non-Dedicated Pump Hand Bailer Low Flow/Micropurge
 Sample ID: _____ Date: _____ Time: _____ Container Type: _____ Number of Containers: _____
 Preservative: _____ Filtered Yes/No: _____ Analysis: _____
 Comments: _____
 Samplers Signature(s): [Signature]

4-5-08

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MWL008-01
 Project Name: FM
 Project Number: 24040838
 Task Code: 1002

Screen Interval: 100-85
 Well Diameter: 4
 Total Well Depth: 88.1
 Dedicated Pump:

Depth to Water: 9.68-06
 Date Measured: 9-18-08
 Measured From: 7010-N
 Well Volume: 9.45 x 3 = 58.29
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 14.13°C pH: 7.00 = 6.95 at 13.54°C pH: 10.00 = 9.95 at 13.40°C

Turbidity: NTU: 0 = Reading NA NTU: 10 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA

Conductivity: Standard 143 umhos/cm at 25°C Reading 44 umhos/cm at 15.15°C Span NA Reading NA

Dissolved Oxygen: Meter 3.25 mg/L at 13.43°C PID: Calibration Gas Type NA PPM NA Reading NA

Date / Time of Calibration(s): 9-18-08 0860

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1320	1.96	1.96	14.55	124.0	7.17	1345	15.7	15.0		Clear
1330	1.14	1.14	13.97	113.2	7.03	1180	14.7	15.0		u
1337	1.14	1.14	13.57	105.3	7.03	1104	10.7	20.0		u
1340	1.14	1.14	13.48	105.2	7.04	1180	10.7	29.0		u
1345	1.14	1.14	13.15	115.8	6.94	1188	30.0	33.0	28.16	u
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 10%)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
NA								

Samplers Signature(s): 

SAMPLING DATA SHEET

Well ID: MW 2008-02 Screen Interval: 27-28 Depth to Water: 20.58 / 30.60 A-3-08 9-4-08
 Project Name: PM Well Diameter: 4" Date Measured: 9-3-08
 Project Number: 24096833 Total Well Depth: 62.2 Measured From: TOIC
 Task Code: 1002 Dedicated Pump: 10.68 x 3 = 32.04 Page 1 of 1
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= at °C pH: 7.0= at °C pH: 10.00= at °C
 Turbidity: La Motte NTU: 0 = Reading 0.06 NTU: 10 = Reading 0.08 NTU: 1 = Reading 0.08 Other: NTU: 94 at 94 °C
 Conductivity: Standard umhos/cm at 25 °C Reading umhos/cm at °C
 Dissolved Oxygen: Meter mg/L at °C PID: Calibration Gas Type PPM Span Reading
 Date / Time of Calibration(s): FACTORY CALIBRATED
 Instrument Model and Serial Number(s): EQUIPCO Y51 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. TOTAL VOL	Depth to Water
1725		3.19	13.45	-75.9	6.84	775.0	181.5	15.0		GREY
1739		3.17	13.40	-57.8	6.50	797.0	452.5	40.0		GREY
1752		3.30	13.23	-61.5	6.46	616.0	350.0	50.0		GREY
1750		1.27	13.41	50.7	6.07	715.1	149.4	5.0	55.0	UNLIT GREY
1835		1.51	13.00	80.64	6.40	601.5	139.8	15.0	75.0	SL. GREY
1850		1.04	13.11	75.1	6.24	600.4	110.8	40.0	40.0	" "
1900		2.50	13.40	76.2	6.24	676.0	128.0	53.0	103.0	" "
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LA MOTTE 194.0
150.0
220.0
155.0

SAMPLING INFORMATION

Sampling Method: Hand Bailer Dedicated Pump X Non-Dedicated Pump X Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
NA								
Samplers Signature(s): <u>[Signature]</u>								

9-3-08
9-4-08

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MN 2008-02 Screen Interval: 22-66 Depth to Water: 50.35
 Project Name: PM Well Diameter: 4" Date Measured: 9-18-08 Page 1 of 1
 Project Number: 240910838 Total Well Depth: 66.1 Measured From: 10.0
 Task Code: 10002 Well Volume: 10.17 x 3 = 60.75 Dedicated Pump: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 14.15 °C pH: 7.0 = 6.5 at 13.54 °C pH: 10.00 = 9.95 at 13.10 °C
 Turbidity: NTU: 0 = Reading NA NTU: 10 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard A13 umhos/cm at 25 °C Reading 114 umhos/cm at 25.15 °C
 Dissolved Oxygen: Meter 3.25 mg/L at 13.15 °C PID: Calibration Gas Type A PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-18-08 0800

Instrument Model and Serial Number(s): YSI 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>12:01</u>	<u>1.7</u>	<u>1.9</u>	<u>13.6</u>	<u>94.2</u>	<u>6.11</u>	<u>135</u>	<u>9.8</u>	<u>5.0</u>	<u>CLEAR</u>	<u>CLEAR</u>
<u>12:07</u>	<u>1.4</u>	<u>1.4</u>	<u>13.4</u>	<u>95.0</u>	<u>6.82</u>	<u>1095</u>	<u>5.7</u>	<u>10.0</u>	<u>CLEAR</u>	<u>CLEAR</u>
<u>12:10</u>	<u>1.5</u>	<u>1.5</u>	<u>13.4</u>	<u>14.6</u>	<u>6.85</u>	<u>6635</u>	<u>53.3</u>	<u>25.0</u>	<u>CLEAR</u>	<u>CLEAR</u>
<u>12:13</u>	<u>1.3</u>	<u>1.3</u>	<u>13.15</u>	<u>24.1</u>	<u>6.13</u>	<u>8101</u>	<u>98.5</u>	<u>40.0</u>	<u>CLEAR</u>	<u>CLEAR</u>
<u>12:17</u>	<u>1.3</u>	<u>1.3</u>	<u>13.15</u>	<u>12.4</u>	<u>6.14</u>	<u>8462</u>	<u>129.5</u>	<u>55.0</u>	<u>62.0</u>	<u>62.0</u>
Stabilization			(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: NA Dedicated Pump NA Non-Dedicated Pump X Hand Bail NA Low Flow/Micropurg NA
 Sample ID: NA Date: 9-18-08 Time: 08:00 Container Type: NA Number of Containers: 1 Preservative: NA Filtered Yes/No: NA Analysis: NA Comments: NA

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MW208-02 Screen Interval: 12-62 Depth to Water: 33.53/44.6 Date Measured: 9-3-08 Page 1 of 1

Project Name: PMI Well Diameter: 4" Date Measured: 9-3-08

Project Number: 249888 Total Well Depth: 105.1 Measured From: TCC-N

Task Code: 1003 Dedicated Pump: 10.59 x 3 = 6.178

Well Volume: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = _____ at _____ °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: LANOTTE NTU: 0 = Reading 0.00 NTU: 10 = Reading 10.05 NTU: 1 = Reading 0.08 Other: NTU: 9.4-08-0150

Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C

Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): FACTORY CALIBRATION

Instrument Model and Serial Number(s): EQUIPCO Y51 0820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. (GAL)	Depth to Water (ft)
<u>13:12</u>		<u>10.310</u>	<u>13.105</u>	<u>16.2</u>	<u>6.57</u>	<u>600</u>	<u>7.59</u>	<u>10.0</u>	<u>10.0</u>	<u>17.5</u>
<u>13:17</u>		<u>6.912</u>	<u>13.100</u>	<u>14.3</u>	<u>6.50</u>	<u>6379</u>	<u>434.3</u>	<u>15.0</u>	<u>15.0</u>	<u>17.5</u>
<u>13:22</u>		<u>7.12</u>	<u>13.10</u>	<u>20.3</u>	<u>6.59</u>	<u>6388</u>	<u>410.7</u>	<u>40.0</u>	<u>40.0</u>	<u>17.5</u>
<u>14:08</u>		<u>4.00</u>	<u>14.08</u>	<u>14.3</u>	<u>6.10</u>	<u>6499</u>	<u>172.1</u>	<u>10.0</u>	<u>50.0</u>	<u>17.5</u>
<u>14:31</u>		<u>3.07</u>	<u>14.01</u>	<u>10.0</u>	<u>6.10</u>	<u>6410</u>	<u>172.0</u>	<u>13.0</u>	<u>63.0</u>	<u>17.5</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LANOTTE
148.0
219.0

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NA</u>								

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MN1008-03 Screen Interval: 27-66 Depth to Water: 33.25 Page 1 of 1
 Project Name: EM Well Diameter: 4 Date Measured: 4-18-08
 Project Number: 24012838 Total Well Depth: 105.1 Measured From: TOIC-N
 Task Code: 10003 Dedicated Pump: 20.99 x 5 = 62.32
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 24.25 °C pH: 7.0 = 6.95 at 23.54 °C pH: 10.00 = 9.95 at 23.00 °C
 Turbidity: NTU: 0 = Reading NA NTU: 10 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard 413 umhos/cm at 25 °C Reading 414 umhos/cm at 25.15 °C
 Dissolved Oxygen: Meter 2.25 mg/L at 23.43 °C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 4-18-08 @ 0800

Instrument Model and Serial Number(s): 751 0880

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1451</u>		<u>5.01</u>	<u>13.44</u>	<u>49.1</u>	<u>6.86</u>	<u>6006</u>	<u>11.4</u>	<u>5.0</u>		<u>Water</u>
<u>1450</u>		<u>5.38</u>	<u>13.50</u>	<u>47.0</u>	<u>6.84</u>	<u>6856</u>	<u>11.8</u>	<u>5.0</u>		<u>Clear</u>
<u>1459</u>		<u>5.30</u>	<u>13.71</u>	<u>49.1</u>	<u>6.94</u>	<u>6851</u>	<u>11.0</u>	<u>5.0</u>		<u>Slightly</u>
<u>1500</u>		<u>5.14</u>	<u>13.1</u>	<u>49.5</u>	<u>6.94</u>	<u>6862</u>	<u>518.3</u>	<u>51.0</u>	<u>53.16 gal</u>	<u>SL. GRAY</u>
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 10%)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)		

SAMPLING INFORMATION

Sampling Method: NA Dedicated Pump NA Non-Dedicated Pump NA Hand Bailor NA Low Flow/Micropurge NA
 Sample ID: NA Date: NA Time: NA Container Type: NA Number of Containers: NA Preservative: NA Filtered Yes/No: NA Analysis: NA Comments: NA

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: AW2008-0A Screen Interval: 23-08 / 9A-08 Depth to Water: 32.59 / 52.12
 Project Name: PM Well Diameter: 4" Date Measured: 9-3-08 / 5-12
 Project Number: 24041038 Total Well Depth: 65.07 Measured From: TOIC-N
 Task Code: 10004 Dedicated Pump: 2.11 x 3 = 63.34 Well Volume: 1.11 x 3 = 63.34
 Page 1 of 1

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = _____ at _____ °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C
 Turbidity: Lamotte NTU: 0 = Reading 0.06 NTU: 10 = Reading 10.05 NTU: 1 = Reading 0.08 Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
 Date / Time of Calibration(s): FACTORY CALIBRATED
 Instrument Model and Serial Number(s): EQUIPCO YSI 6020

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Gassing Vol. (L/Meter)	Depth to Meter
<u>1444</u>		<u>6.30</u>	<u>24.96</u>	<u>18.7</u>	<u>7.07</u>	<u>5476</u>	<u>40.1</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>
<u>1449</u>		<u>6.25</u>	<u>23.85</u>	<u>14.1</u>	<u>6.108</u>	<u>5317</u>	<u>10.1</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>
<u>1453</u>		<u>8.17</u>	<u>23.64</u>	<u>13.0</u>	<u>6.109</u>	<u>5251</u>	<u>11.6</u>	<u>30.0</u>	<u>10.0</u>	<u>10.0</u>
<u>1458</u>		<u>6.85</u>	<u>23.01</u>	<u>10.8</u>	<u>6.63</u>	<u>5409</u>	<u>10.4</u>	<u>43.0</u>	<u>10.0</u>	<u>10.0</u>
<u>1503</u>		<u>5.74</u>	<u>23.00</u>	<u>-2.4</u>	<u>6.52</u>	<u>5662</u>	<u>19.0</u>	<u>44.0</u>	<u>10.0</u>	<u>10.0</u>
<u>1504</u>		<u>3.45</u>	<u>24.11</u>	<u>11.6</u>	<u>6.65</u>	<u>5331</u>	<u>13.1</u>	<u>10.0</u>	<u>10.0</u>	<u>10.0</u>
<u>1509</u>		<u>3.75</u>	<u>23.88</u>	<u>14.6</u>	<u>6.75</u>	<u>5058</u>	<u>34.0</u>	<u>30.0</u>	<u>10.0</u>	<u>10.0</u>
<u>1513</u>		<u>4.13</u>	<u>23.77</u>	<u>13.4</u>	<u>6.70</u>	<u>5100</u>	<u>68.0</u>	<u>45.0</u>	<u>10.0</u>	<u>10.0</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>N/A</u>								

Samplers Signature(s): [Signature]

LAMOTTE
5.30
67.0
62.9

9A-08

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MN2008-04 Screen Interval: 12-12 Depth to Water: 32.59
 Project Name: PMJ Well Diameter: 4 Date Measured: 9-18-09 Page 1 of 1
 Project Number: 24M0838 Total Well Depth: 65.07 Measured From: 1010-N
 Task Code: 100A Dedicated Pump: 1.84 x 5 = 63.12

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 14.12 °C pH: 7.0 = 6.15 at 13.34 °C pH: 10.00 = 9.95 at 23.40 °C
 Turbidity: NTU: 0 = Reading NA NTU: 10 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard NA umhos/cm at 44 umhos/cm at 25.15 °C
 Dissolved Oxygen: Meter 30.5 mg/L at 13.43 °C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9/18/09 @ 08:50

Instrument Model and Serial Number(s): YSI 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1524</u>		<u>3.14</u>	<u>13.43</u>	<u>110.9</u>	<u>7.07</u>	<u>5878</u>	<u>29.1</u>	<u>5.0</u>		<u>CLEAR</u>
<u>1524</u>		<u>3.18</u>	<u>13.40</u>	<u>116.1</u>	<u>6.99</u>	<u>5670</u>	<u>41.0</u>	<u>15.0</u>		<u>CLEAR</u>
<u>1530</u>		<u>3.18</u>	<u>13.41</u>	<u>192.9</u>	<u>6.08</u>	<u>5495</u>	<u>15.4</u>	<u>30.0</u>		<u>CLEAR</u>
<u>1535</u>		<u>3.15</u>	<u>13.38</u>	<u>118.7</u>	<u>6.07</u>	<u>5507</u>	<u>17.4</u>	<u>44.0</u>	<u>44.0</u>	<u>CLEAR</u>
Stabilization										

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailor _____ Low Flow/Micropurge _____
 Sample ID: NA Date: _____ Time: _____ Container Type: _____ Number of Containers: _____ Preservative: _____ Filtered Yes/No: _____ Analysis: _____
 Comments: _____

Samplers Signature(s): Michael A. Eide

SAMPLING DATA SHEET

Well ID: MW 2008-05 Screen Interval: 19-29 Depth to Water: 43.01 / 94.08
 Project Name: FMI Well Diameter: 4" Date Measured: 4-5-08 / 4-5-08
 Project Number: 24046858 Total Well Depth: 52.38 Measured From: TOIC-N
 Task Code: 10005 Dedicated Pump: 10.82 x 3 = 50.46 Well Volume: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft. Page 1 of 1

FIELD INSTRUMENT CALIBRATION

PH: pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: LAMORTE NTU: 0 = Reading 0.06 NTU: 10 = Reading 10.05 NTU: 1 = Reading 0.08 Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ Span _____ Reading _____
 Date / Time of Calibration(s): FACTORY CALIBRATED
 Instrument Model and Serial Number(s): EQUIPO YSI 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. (TOTAL VOL)	Depth to Water (1. Water Color)
1533		4.87	23.10	14.9	6.51	2310	60.9	10.0		NEARLY CLEAR
1534		4.49	23.05	16.1	6.57	2255	106.2	55.0		CLEANER
1544		4.54	23.01	19.6	6.54	2275	40.2	43.0		"
1548		4.70	23.04	27.9	6.62	2298	10.4	10.0	53.0	CLEAR
1550		5.09	23.51	31.5	6.62	2252	57.3	40.0	43.0	"
1550		5.17	23.01	33.8	6.65	2275	55.1	47.0	40.0	SLURRY
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LAMORTE
5.18
60.8
68.9

94-08

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailor _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NK</u>								

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Sierra VRP

Well ID: MN 2008-05 Screen Interval: 14-29 Depth to Water: 26.1 Page 1 of 1
 Project Name: EM Well Diameter: 4" Date Measured: 9-19-08
 Project Number: 24210858 Total Well Depth: 52.5 Measured From: 1010 - N
 Task Code: 1003 Dedicated Pump: 1.09 + 3 = 5.19
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 14.2 °C pH: 7.0 = 6.96 at 25.0 °C pH: 10.00 = 9.97 at 21.1 °C
 Turbidity: NTU: 0 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard 413 umhos/cm at 25.0 °C umhos/cm at 26.07 °C
 Dissolved Oxygen: Meter 3.11 mg/L at 25.5 °C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-19-08 @ 0800

Instrument Model and Serial Number(s): YSI 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0800</u>	<u>3.11</u>	<u>3.11</u>	<u>21.58</u>	<u>141.6</u>	<u>7.18</u>	<u>1390</u>	<u>30.4</u>	<u>5.0</u>		<u>CLEAR</u>
<u>0805</u>	<u>3.09</u>	<u>3.09</u>	<u>21.08</u>	<u>140.5</u>	<u>7.16</u>	<u>1241</u>	<u>41.5</u>	<u>10.0</u>		<u>"</u>
<u>0810</u>	<u>3.06</u>	<u>3.06</u>	<u>21.04</u>	<u>145.16</u>	<u>7.08</u>	<u>1165</u>	<u>45.1</u>	<u>20.0</u>		<u>"</u>
<u>0815</u>	<u>3.04</u>	<u>3.04</u>	<u>21.51</u>	<u>142.16</u>	<u>7.12</u>	<u>1180</u>	<u>32.5</u>	<u>34.0</u>		<u>"</u>
<u>0820</u>	<u>3.05</u>	<u>3.05</u>	<u>21.58</u>	<u>140.3</u>	<u>7.11</u>	<u>1224</u>	<u>43.0</u>	<u>40.0</u>		<u>"</u>
Stabilization	(+/- 10%)	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: NA Dedicated Pump NA Non-Dedicated Pump X Hand Bailor NA Low Flow/Micropurge NA
 Sample ID: NA Date: 9-19-08 Time: 0800 Container Type: NA Number of Containers: NA Preservative: NA Filtered Yes/No: NA Analysis: NA Comments: NA

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MN 2008-00 Screen Interval: 13-08, 9-11, 08 Depth to Water: _____
 Project Name: LA MOTT Well Diameter: 2.58 / 2.61 Date Measured: 1-3-08
 Project Number: 21010838 Total Well Depth: 41.80 Measured From: 7.10 R-N
 Task Code: 10005 Dedicated Pump: 18.99 x 3 = 56.98 Well Volume: _____
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

Page 1 of 1

FIELD INSTRUMENT CALIBRATION

PH: pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: LA MOTT NTU: 0 = Reading 0.010 NTU: 10 = Reading 10.05 NTU: 1 = Reading 0.08 Other: NTU: _____ = Reading 0.150
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ Span _____ Reading _____
 Date / Time of Calibration(s): FACTORY CALIBRATED

WELL PURGING

Instrument Model and Serial Number(s): FA1000 Y51 0820

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. (Total Vol)	Depth to Water
<u>10:15</u>	<u>3.15</u>	<u>3.15</u>	<u>23.00</u>	<u>198.4</u>	<u>6.45</u>	<u>571.9</u>	<u>56.8</u>	<u>10.0</u>	<u>10.0</u>	<u>Water</u>
<u>10:25</u>	<u>3.18</u>	<u>3.18</u>	<u>23.31</u>	<u>197.5</u>	<u>6.50</u>	<u>579.0</u>	<u>78.0</u>	<u>15.0</u>	<u>15.0</u>	<u>Water</u>
<u>10:28</u>	<u>4.00</u>	<u>4.00</u>	<u>23.12</u>	<u>197.5</u>	<u>6.55</u>	<u>571.0</u>	<u>107.1</u>	<u>35.0</u>	<u>35.0</u>	<u>Water</u>
<u>10:29</u>	<u>4.59</u>	<u>4.59</u>	<u>24.01</u>	<u>199.2</u>	<u>6.67</u>	<u>540.9</u>	<u>12.5</u>	<u>5.0</u>	<u>5.0</u>	<u>Water</u>
<u>10:31</u>	<u>5.19</u>	<u>5.19</u>	<u>23.89</u>	<u>198.4</u>	<u>6.82</u>	<u>547.7</u>	<u>83.2</u>	<u>15.0</u>	<u>15.0</u>	<u>Water</u>
<u>10:31</u>	<u>4.45</u>	<u>4.45</u>	<u>23.21</u>	<u>197.5</u>	<u>6.78</u>	<u>545.8</u>	<u>130.7</u>	<u>45.0</u>	<u>45.0</u>	<u>Water</u>
Stabilization	(+/- 10%)	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LA MOTT
11.8
119.0
173.0

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NA</u>								

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MW 2008-00 Screen Interval: 9-39 Depth to Water: 17.0 ft Page 1 of 1
 Project Name: CPM Well Diameter: 2 Date Measured: 9-19-08
 Project Number: 1AM1053 Total Well Depth: 41.80 Measured From: TAIC-N
 Task Code: 1005 Dedicated Pump: 19.28 x 3 = 57.84

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 24.2°C pH: 7.0 = 10.16 at 24.5°C pH: 10.00 = 9.99 at 24.1°C
 Turbidity: NTU: 0 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard 1413 umhos/cm at 25°C Reading 1413 umhos/cm at 26.07 °C
 Dissolved Oxygen: Meter 3.11 mg/L at 25.15°C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-19-08 08:00

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>07:59</u>		<u>3.12</u>	<u>17.10</u>	<u>105.10</u>	<u>7.19</u>	<u>5485</u>	<u>53.1</u>	<u>5.0</u>		<u>Clear</u>
<u>08:03</u>		<u>3.21</u>	<u>15.11</u>	<u>138.1</u>	<u>7.18</u>	<u>3867</u>	<u>14.10</u>	<u>15.0</u>		<u>SL. GREY</u>
<u>08:09</u>		<u>3.21</u>	<u>15.10</u>	<u>135.3</u>	<u>7.16</u>	<u>3816</u>	<u>18.10</u>	<u>30.0</u>		<u>SL. GREY</u>
<u>08:09</u>		<u>3.21</u>	<u>12.14</u>	<u>134.1</u>	<u>7.15</u>	<u>5415</u>	<u>21.14</u>	<u>40.0</u>		<u>SL. GREY</u>
<u>08:11</u>		<u>3.17</u>	<u>12.04</u>	<u>134.3</u>	<u>7.14</u>	<u>5430</u>	<u>24.13</u>	<u>41.0</u>	<u>NA</u>	<u>SL. GREY</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: NA Dedicated Pump NA Non-Dedicated Pump NA Hand Bail NA Low Flow/Micropurge NA
 Sample ID: NA Date: 9-19-08 Time: 08:00 Container Type: NA Number of Containers: 1 Preservative: NA Filtered Yes/No: NA Analysis: NA Comments: NA

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MN2008-07 Screen Interval: 15-45 Depth to Water: 24.0 Date Measured: 9-4-08 Page 1 of 1

Project Name: PM Well Diameter: 4.0 Date Measured: 9-4-08 Measured From: STOK-N

Project Number: 24010838 Total Well Depth: 44.0 Well Volume: 1587 x 3 = 46.72

Task Code: 10007 Dedicated Pump: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C

Turbidity: LAMOTIE NTU: 0 = Reading 0.00 NTU: 10 = Reading 10.05 NTU: 1 = Reading 0.08 Other: NTU: _____ = Reading 0.145

Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C

Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): FACTORY CALIBRATION

Instrument Model and Serial Number(s): EMPCO PSI 1080

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. (gals)	Depth to Water (ft)
<u>0755</u>	<u>1.30</u>	<u>4.53</u>	<u>22.97</u>	<u>130.4</u>	<u>6.17</u>	<u>4557</u>	<u>213.8</u>	<u>19.0</u>	<u>70.0</u>	<u>10.5</u>
<u>0800</u>	<u>1.20</u>	<u>4.53</u>	<u>22.80</u>	<u>115.4</u>	<u>6.60</u>	<u>4553</u>	<u>213.8</u>	<u>19.0</u>	<u>70.0</u>	<u>10.5</u>
<u>0759</u>	<u>1.30</u>	<u>4.53</u>	<u>22.97</u>	<u>130.4</u>	<u>6.17</u>	<u>4557</u>	<u>213.8</u>	<u>19.0</u>	<u>70.0</u>	<u>10.5</u>
<u>0805</u>	<u>1.20</u>	<u>4.53</u>	<u>22.80</u>	<u>115.4</u>	<u>6.60</u>	<u>4553</u>	<u>213.8</u>	<u>19.0</u>	<u>70.0</u>	<u>10.5</u>
<u>0810</u>	<u>1.30</u>	<u>4.53</u>	<u>22.97</u>	<u>130.4</u>	<u>6.17</u>	<u>4557</u>	<u>213.8</u>	<u>19.0</u>	<u>70.0</u>	<u>10.5</u>
<u>0810</u>	<u>1.20</u>	<u>4.53</u>	<u>22.80</u>	<u>115.4</u>	<u>6.60</u>	<u>4553</u>	<u>213.8</u>	<u>19.0</u>	<u>70.0</u>	<u>10.5</u>
Stabilization	(+/- 10%)	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LAMOTIE
80.9
555.0
85.4
204.0
252.0
152.0

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NA</u>								

Samplers Signature(s): Adampy

SAMPLING DATA SHEET

Sierrita YRP

Well ID: MW2018-01
 Project Name: FMI
 Project Number: 140018538
 Task Code: 10007

Screen Interval: 15-45
 Well Diameter: 4.0
 Total Well Depth: 48.0
 Dedicated Pump: 10007

Depth to Water: 15.5 ft
 Date Measured: 9/18/08
 Measured From: 1.6 ft x 3 = 4.8 ft
 Well Volume: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

Page 1 of 1

FIELD INSTRUMENT CALIBRATION

PH: 4.00 = 4.00 at 24.2 °C
 NTU: 0 = Reading NA
 Conductivity: Standard 145 umhos/cm at 25 °C
 Dissolved Oxygen: Meter 3.1 mg/L at 25.5 °C
 Date / Time of Calibration(s): 9/18/08 0800

PH: 7.0 = 6.96 at 24.5 °C
 NTU: 1 = Reading NA
 Conductivity: Standard 145 umhos/cm at 25 °C
 Dissolved Oxygen: Meter NA mg/L at NA °C

PH: 10.00 = 9.97 at 24.1 °C
 Other: NTU: NA = Reading NA
 Span: NA Reading NA

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water Meter
0815	4.2	4.2	24.2	276.7	6.10	4819	55.1	5.0	5.6	5.6
0825	4.0	4.0	24.1	276.7	6.60	4840	29.8	10.0	5.1	5.1
0835	3.8	3.8	24.8	271.5	6.55	4839	14.5	15.0	5.6	5.6
0845	3.8	3.8	24.8	272.7	6.57	4829	14.8	10.0	5.6	5.6
Stabilization	(+/- 10%)	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
NA								

Samplers Signature(s): 

SAMPLING DATA SHEET

Well ID: MW2008-08 9-4-08 9:50 AM
 Project Name: PM 10.15 / 10.52
 Project Number: 2491808 14-08
 Task Code: 10007 15.99 x 3 = 47.97
 Screen Interval: 30.5-46.5 Depth to Water: _____
 Well Diameter: 4" Date Measured: _____
 Total Well Depth: 58.13 Measured From: _____
 Dedicated Pump: _____ Well Volume: _____
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: LAMORTE NTU: 0 = Reading 0.00 NTU: 10 = Reading 10.05 NTU: 1 = Reading 0.08 Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): FACTORY CALIBRATED (EMCO)
 Instrument Model and Serial Number(s): EMPCO 151 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. (TOTAL)	Depth to Water
<u>08:36</u>	<u>3.64</u>	<u>3.64</u>	<u>23.94</u>	<u>61.5</u>	<u>6.10</u>	<u>408</u>	<u>4.3</u>	<u>5.0</u>	<u>10.0</u>	<u>CLEAR</u>
<u>08:36</u>	<u>3.64</u>	<u>3.64</u>	<u>23.00</u>	<u>60.5</u>	<u>6.58</u>	<u>405</u>	<u>4.1</u>	<u>20.0</u>	<u>10.0</u>	<u>"</u>
<u>08:39</u>	<u>4.27</u>	<u>4.27</u>	<u>23.17</u>	<u>63.7</u>	<u>6.84</u>	<u>430</u>	<u>8.5</u>	<u>5.0</u>	<u>15.0</u>	<u>"</u>
<u>08:39</u>	<u>4.27</u>	<u>4.27</u>	<u>23.53</u>	<u>60.6</u>	<u>6.84</u>	<u>428</u>	<u>5.8</u>	<u>10.0</u>	<u>30.0</u>	<u>"</u>
<u>08:39</u>	<u>4.27</u>	<u>4.27</u>	<u>23.47</u>	<u>63.9</u>	<u>6.74</u>	<u>418</u>	<u>4.7</u>	<u>14.0</u>	<u>34.0</u>	<u>"</u>
Stabilization	(+/- 10%)	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LAMORTE
8.87
13.17
1.95
3.45

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailer _____ Low Flow/Micropurge _____
 Sample ID: NA Date: _____ Time: _____ Container Type: _____ Number of Containers: _____ Preservative: _____ Filtered Yes/No: _____ Analysis: _____ Comments: _____
 Samplers Signature(s): [Signature]

9-5-08

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MW 2008-07 Screen Interval: 36.15-46.15 Depth to Water: 22.17 Page 1 of 1
 Project Name: PM Well Diameter: 4 Date Measured: 11-19-08
 Project Number: 74916858 Total Well Depth: 50.15 Measured From: 10.00-N
 Task Code: 10007 Well Volume: 17.89 83 = 53.68
 Dedicated Pump: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 24.75 °C pH: 7.00 = 6.96 at 24.50 °C pH: 10.00 = 9.97 at 24.11 °C
 Turbidity: NTU: 0 = Reading NA NTU: 10 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard NA umhos/cm at 25 °C Reading NA umhos/cm at 26.01 °C
 Dissolved Oxygen: Meter 3.11 mg/L at 25.15 °C PID: Calibration Gas Type NA ppm NA Span NA Reading NA
 Date / Time of Calibration(s): 11-19-08 2:0800
 Instrument Model and Serial Number(s): YSI 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0958		1.84	23.91	277.14	7.17	43.50	5.5	5.0		USAR
1001		2.87	23.22	266.17	7.07	43.17	5.5	10.0		"
1004		2.88	23.00	262.17	7.08	43.02	30.9	15.0		"
1007		2.16	22.10	192.18	7.02	43.17	33.8	10.0		"
1011		2.35	21.60	214.5	7.02	43.25	34.9	174.0		"
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: NA Dedicated Pump NA Non-Dedicated Pump X Hand Bailer NA Low Flow/Micropurge NA

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NA</u>								

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MW 608-01 Screen Interval: 15-50 Depth to Water: 27.4 / 30.48 9-4-08 9-5-08
 Project Name: PAT Well Diameter: 4" Date Measured: 9-4-08
 Project Number: 24091238 Total Well Depth: 52.83 Measured From: Toic - N
 Task Code: 10008 Dedicated Pump: 10.70 x 3 = 50.09 Well Volume: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

Page 1 of 1

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= at °C pH: 7.0= at °C pH: 10.00= at °C
 Turbidity: LAMOTTE NTU: 0 = Reading 0.00 NTU: 10 = Reading 10.05 NTU: 1 = Reading 0.08 Other: NTU: cal, 9.4-08 & 0.08
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): Factory Calibrations (EOWPC)
 Instrument Model and Serial Number(s): EOWPC YSL 670

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. (GAL Vol)	Depth to Water
<u>0914</u>	<u>3.94</u>	<u>3.30</u>	<u>17.30</u>	<u>731.8</u>	<u>3.58</u>	<u>4600</u>	<u>15.1</u>	<u>10.0</u>	<u>0.0</u>	<u>COLBY</u>
<u>0916</u>	<u>4.21</u>	<u>3.30</u>	<u>17.24</u>	<u>711.9</u>	<u>3.17</u>	<u>4575</u>	<u>31.1</u>	<u>30.0</u>	<u>0.0</u>	<u>ST. SEELY</u>
<u>0915</u>	<u>3.30</u>	<u>3.30</u>	<u>12.35</u>	<u>711.0</u>	<u>3.10</u>	<u>4680</u>	<u>254.0</u>	<u>28.0</u>	<u>0.0</u>	<u>" "</u>
<u>0907</u>	<u>6.18</u>	<u>6.18</u>	<u>17.60</u>	<u>715.4</u>	<u>3.98</u>	<u>4789</u>	<u>15.5</u>	<u>5.0</u>	<u>45.0</u>	<u>URANUS</u>
<u>0901</u>	<u>11.18</u>	<u>6.72</u>	<u>17.09</u>	<u>741.0</u>	<u>3.30</u>	<u>4651</u>	<u>123.1</u>	<u>10.0</u>	<u>48.0</u>	<u>" "</u>
<u>0912</u>	<u>6.72</u>	<u>6.72</u>	<u>21.07</u>	<u>743.9</u>	<u>3.14</u>	<u>4675</u>	<u>144.8</u>	<u>31.0</u>	<u>69.0</u>	<u>" "</u>
Stabilization	(+/- 10%)	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

LAMOTTE
175.0
378.0
324.0
26.5
83.7
177.0

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NA</u>								

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: 14N/008-01 Screen Interval: 5-50 Depth to Water: 76.9'
 Project Name: FMI Well Diameter: 4 Date Measured: 4-9-01 Page 1 of 1
 Project Number: 240410838 Total Well Depth: 530 Measured From: Top - N
 Task Code: 10008 Dedicated Pump: 10.92 x 3 = 50.15
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 24.23 °C pH: 7.0 = 6.8 at 24.50 °C pH: 10.00 = 9.0 at 24.11 °C
 Turbidity: NTU: 0 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard AB umhos/cm at 25 °C Reading NA umhos/cm at 26.07 °C
 Dissolved Oxygen: Meter 316 mg/L at 25.5 °C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-19-08 @ 0800

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1027	1.87	2.81	22.04	281.7	4.33	5100	94.3	5.0		27.8R
1037	3.04	3.04	21.97	331.6	3.69	4863	66.3	15.0		27.8R
1040	3.13	3.13	21.87	320.9	3.58	4824	91.8	15.0		27.8R
1043	3.15	3.15	21.84	301.5	3.80	4482	91.5	34.0		27.8R
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)			

SAMPLING INFORMATION

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
NA								

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MW 2008-10 Screen Interval: 10-50 Depth to Water: 94.08 / 95.08

Project Name: PPH Well Diameter: 4" Date Measured: 9-4-08 Date: 9-4-08 / 20.13

Project Number: 24916838 Total Well Depth: 53.38 Measured From: TK-N Page 1 of 1

Task Code: 10000 Dedicated Pump: 16.45 ± 3 = 49.34 Well Volume: 318" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 7.00 at 20.05 °C pH: 7.00 at 20.05 °C pH: 10.00 at 20.05 °C

Turbidity: 0.00 NTU: 0 = Reading NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 0.08 Reading: 0.08 Reading: 0.08 Reading: 0.08

Conductivity: 16.45 umhos/cm at 25 °C Standard: 16.45 ± 3 = 49.34 umhos/cm at 25 °C Reading: 16.45 umhos/cm at 25 °C Reading: 16.45 umhos/cm at 25 °C

Dissolved Oxygen: 5.09 mg/L at 20.05 °C PID: Calibration Gas Type Factory Calibrated (Empco) Span: 5.09 Reading: 5.09

Date / Time of Calibration(s): 9-4-08 10:05 Instrument Model and Serial Number(s): Empco VS16820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol. (Water)	Depth to Water
<u>0955</u>	<u>3.69</u>	<u>3.69</u>	<u>13.37</u>	<u>147.4</u>	<u>4.83</u>	<u>4221</u>	<u>58.3</u>	<u>10.0</u>	<u>1071.0</u>	<u>117.0</u>
<u>1000</u>	<u>4.24</u>	<u>4.24</u>	<u>13.13</u>	<u>132.3</u>	<u>5.17</u>	<u>4224</u>	<u>71.2</u>	<u>10.0</u>	<u>1071.0</u>	<u>117.0</u>
<u>1005</u>	<u>5.07</u>	<u>5.07</u>	<u>13.05</u>	<u>150.8</u>	<u>5.30</u>	<u>4257</u>	<u>123.5</u>	<u>30.0</u>	<u>1071.0</u>	<u>117.0</u>
<u>1010</u>	<u>3.75</u>	<u>3.75</u>	<u>12.95</u>	<u>160.5</u>	<u>5.32</u>	<u>4271</u>	<u>112.3</u>	<u>31.0</u>	<u>1071.0</u>	<u>117.0</u>
<u>0950</u>	<u>5.09</u>	<u>5.09</u>	<u>13.39</u>	<u>146.1</u>	<u>4.84</u>	<u>4293</u>	<u>11.7</u>	<u>5.0</u>	<u>1071.0</u>	<u>117.0</u>
<u>0955</u>	<u>5.49</u>	<u>5.49</u>	<u>13.11</u>	<u>141.6</u>	<u>4.10</u>	<u>4211</u>	<u>21.6</u>	<u>15.0</u>	<u>1071.0</u>	<u>117.0</u>
<u>0950</u>	<u>6.40</u>	<u>6.40</u>	<u>12.99</u>	<u>142.4</u>	<u>4.85</u>	<u>4213</u>	<u>11.6</u>	<u>24.0</u>	<u>1071.0</u>	<u>117.0</u>
Stabilization	(+/- 10%)	(+/- 10 mV)	(+/- 1 deg.)	(+/- 1)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump X Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NA</u>								

Samplers Signature(s): [Signature]

LAHUTE
55.9
190.8
134.0
117.0
15.3
38.8
45.4

9-5-08

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MW2008-10 Screen Interval: 10-50 Depth to Water: 71.11
 Project Name: PM Well Diameter: 4 Date Measured: 9-16-08 Page 1 of 1
 Project Number: 74010038 Total Well Depth: 50.5 Measured From: 100-15
 Task Code: 600X Dedicated Pump: 11.05 x 3 = 51.15

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 24.3 °C pH: 7.0 = 6.96 at 24.50 °C pH: 10.00 = 9.97 at 24.11 °C
 Turbidity: NTU: 0 = Reading 413 NTU: 1 = Reading 413 NTU: 413 = Reading MA Other: NTU: MA = Reading MA
 Conductivity: Standard 413 umhos/cm at 25 °C umhos/cm at 25.0 °C Span MA Reading MA
 Dissolved Oxygen: Meter 3.11 mg/L at 25.15 °C PID: Calibration Gas Type MA PPM MA
 Date / Time of Calibration(s): 9-19-08 10:00 Instrument Model and Serial Number(s): 51 0820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
110A		3.58	22.19	194.5	5.55	4514	85.2	51.0		CLEAR
110A		3.75	22.14	191.2	5.55	4475	82.4	51.0		CLEAR
110A		3.83	22.11	191.6	5.05	4471	80.4	51.0		CLEAR
111L		3.70	22.05	190.5	5.08	4481	76.1	51.0		31
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Hand Bail Dedicated Pump Non-Dedicated Pump Low Flow/Micropurge 5.0
 Sample ID: MA Date: 9-16-08 Time: 10:00 Container Type: 5.0L Number of Containers: 1 Preservative: None Filtered Yes/No: Yes Analysis: MA Comments: MA

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MW 2008-11 Screen Interval: 21-52k Depth to Water: 94-08, 95-08
 Project Name: EM Well Diameter: 4" Date Measured: 5/17/11
 Project Number: 74010858 Total Well Depth: 54.5 Measured From: 1010-N/A
 Task Code: 1001 Dedicated Pump: 15.50 x 3 = 46.5 Well Volume: 15.50 x 3 = 46.5 Page 1 of 1

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = _____ at _____ °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C
 Turbidity: LA MOTE NTU: 0 = Reading 0.06 NTU: 1 = Reading 0.08 Other: NTU: 94-09-0750 = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
 Date / Time of Calibration(s): Factory Calibrated (EISCO)
 Instrument Model and Serial Number(s): EMSCO 15 6860

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Ceasing Vol. (Water)	Depth to Water
1106		5.04	14.05	161.7	6.08	9654	103.7	5.0	TOTAL 20.0	1010-N/A
1110		4.38	14.25	161.7	5.37	9415	115.2	20.0	1010-N/A	134.0
1111		4.19	13.37	181.0	5.18	8582	129.8	35.0	1010-N/A	134.0
1111		4.88	13.16	173.0	5.30	2410	102.8	49.0	1010-N/A	134.0
1020		7.09	13.29	118.5	4.78	7378	11.0	5.0	54.0 (CLEAR)	1.52
1039		7.10	13.17	128.5	4.80	7329	14.5	20.0	69.0	2.1
1034		7.55	13.00	124.7	4.81	7311	80.5	40.0	94.0	280.7
1040		7.85	13.09	124.7	5.11	7304	81.4	30.0	99.0	90.0
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)		100.0 TOTAL	(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>N/A</u>								

Samplers Signature(s): [Signature]

LA MOTE
 134.0
 134.0
 65.9
 93.0
 1.52
 2.1
 280.7
 90.0

9-5-08

SAMPLING DATA SHEET

Sierrita VRP

Well ID:	Screen Interval:	Depth to Water:	Page 1 of 1
11-52	2-52	3.5	
Project Name:	Well Diameter:	Date Measured:	
11-52	4.0	6-9-07	
Project Number:	Total Well Depth:	Measured From:	
11-52	54.6	Toic-N	
Task Code:	Dedicated Pump:	Well Volume:	
11-52		0.41 x 3 = 1.23	

FIELD INSTRUMENT CALIBRATION

PH: 4.00 = 4.00 at 25.0 °C pH: 7.0 = 7.00 at 25.0 °C pH: 10.00 = 9.97 at 24.1 °C

Turbidity: NTU: 0 = Reading NA NTU: 1 = Reading NA NTU: 10 = Reading NA Other: NTU: NA = Reading NA

Conductivity: Standard 143 umhos/cm at 25 °C Reading 143 umhos/cm at 26.07 °C

Dissolved Oxygen: Meter 3.11 mg/L at 25.5 °C PID: Calibration Gas Type A Span NA Reading NA

Date / Time of Calibration(s): 6-14-07 @ 0800

Instrument Model and Serial Number(s): YSI 6820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
12:15		4.14	23.9	249.1	5.77	1508	14.7	5.0		Water CLEAR
12:20		4.05	23.85	249.5	5.73	1503	20.1	15.0		11
12:25		4.05	23.80	249.4	5.72	1503	24.8	15.0		11
12:30		4.14	23.81	249.3	5.74	1509	30.3	35.0		11
12:35		4.160	23.810	249.7	5.81	1519	33.8	43.0	46 GALLONS	11
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Fland Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
NA								4" USING GAS HAS MINIMUM PRESSURE

Samplers Signature(s):

SAMPLING DATA SHEET

Well ID: M/L-12 Screen Interval: 10-155 Depth to Water: 115.160
 Project Name: PH Well Diameter: 4 Date Measured: 9-17-07
 Project Number: 2490888 Total Well Depth: 158.5 Measured From: TOC-N Page 1 of 2
 Task Code: 10014 Dedicated Pump: 21.85 x 3 = 83.54
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 15.65°C pH: 7.0 = Reading NA at 24.4°C pH: 10.00 = 9.95 at 13.35°C
 Turbidity: NTU: 0 = Reading NA NTU: 10 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard 1413 umhos/cm at 25°C Reading 1367 umhos/cm at 16.35°C
 Dissolved Oxygen: Meter S51 mg/L at 23.40°C PID: Calibration Gas Type NA Span NA Reading NA
 Date / Time of Calibration(s): 9-17-07 11:35
 Instrument Model and Serial Number(s): 51080

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	TOTAL Casing-Vol.	Depth-to-Water
<u>1:35</u>		<u>1.73</u>	<u>25.1</u>	<u>21.4</u>	<u>7.98</u>	<u>1877</u>	<u>107.4</u>	<u>7.5</u>	<u>NA</u>	<u>Color</u>
<u>1:39</u>		<u>1.75</u>	<u>22.95</u>	<u>24.7</u>	<u>7.66</u>	<u>1875</u>	<u>20.4</u>	<u>10.0</u>	<u>NA</u>	<u>LT. BR SILTY</u>
<u>1:41</u>		<u>1.57</u>	<u>22.89</u>	<u>21.5</u>	<u>7.58</u>	<u>1905</u>	<u>67.7</u>	<u>15.0</u>	<u>NA</u>	<u>LT. BR.</u>
<u>1:46</u>		<u>1.37</u>	<u>22.91</u>	<u>100.0</u>	<u>7.57</u>	<u>1916</u>	<u>62.3</u>	<u>11.5</u>	<u>NA</u>	<u>LT. BR. SILTY</u>
<u>1:50</u>		<u>1.40</u>	<u>23.17</u>	<u>102.1</u>	<u>7.56</u>	<u>1955</u>	<u>47.0</u>	<u>12.5</u>	<u>NA</u>	<u>LT. BR. SILTY</u>
<u>1:54</u>		<u>1.45</u>	<u>23.03</u>	<u>107.0</u>	<u>7.57</u>	<u>1975</u>	<u>43.1</u>	<u>13.5</u>	<u>NA</u>	<u>LT. BR. SILTY</u>
<u>1:59</u>		<u>1.54</u>	<u>22.97</u>	<u>131.6</u>	<u>7.58</u>	<u>1997</u>	<u>40.8</u>	<u>14.5</u>	<u>NA</u>	<u>LT. BR. SILTY</u>
<u>2:05</u>		<u>1.80</u>	<u>22.69</u>	<u>125.0</u>	<u>7.63</u>	<u>1979</u>	<u>46.2</u>	<u>32.5</u>	<u>NA</u>	<u>LT. BR. SILTY</u>
<u>2:11</u>		<u>2.00</u>	<u>21.82</u>	<u>125.6</u>	<u>7.63</u>	<u>1977</u>	<u>45.5</u>	<u>40.0</u>	<u>NA</u>	<u>LT. BR. SILTY</u>
<u>2:14</u>		<u>1.91</u>	<u>21.78</u>	<u>125.3</u>	<u>7.60</u>	<u>1939</u>	<u>45.8</u>	<u>41.0</u>	<u>NA</u>	<u>LT. BR. SILTY</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: NA Dedicated Pump NA Non-Dedicated Pump X Hand-Bailer NA Low Flow/Micropurge NA
 Sample ID: NA Date: 9/17/07 Time: 11:35 Container Type: NA Number of Containers: NA Preservative: NA Filtered Yes/No: NA Analysis: NA Comments: NA
 Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: <u>WV10787</u>	Screen Interval: <u>100-155</u>	Depth to Water: <u>150.89</u>	Date Measured: <u>9-18-07</u>	Page <u>2</u> of <u>2</u>
Project Name: <u>EMJ</u>	Well Diameter: <u>4</u>	Total Well Depth: <u>158.58</u>	Measured From: <u>TOIC-N</u>	
Project Number: <u>24090858</u>	Dedicated Pump: <u>10014</u>	Well Volume <u>4.09</u> \times <u>3.3</u> = <u>13.60</u> 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.		

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = <u>4.00</u> at <u>21.94</u> °C NTU: 0 = Reading <u>NA</u> Standard <u>1413</u> umhos/cm at <u>21.94</u> °C Meter <u>2.82</u> mg/L at <u>24.60</u> °C Date / Time of Calibration(s): <u>9-18-08 @ 08:50</u>	pH: 7.0 = Reading <u>NA</u> NTU: 1 = Reading <u>NA</u> umhos/cm at <u>25.02</u> °C PID: Calibration Gas Type <u>NA</u> Span <u>NA</u> Reading <u>NA</u> Other: NTU: <u>NA</u> = Reading <u>NA</u>	pH: 10.00 = <u>9.90</u> at <u>21.60</u> °C NTU: <u>NA</u> Span <u>NA</u> Reading <u>NA</u>	Other: NTU: <u>NA</u> = Reading <u>NA</u> Span <u>NA</u> Reading <u>NA</u> <u>OR @ 21.9 @ 24.6 @ 25.0</u>
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WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>09:01</u>		<u>141</u>	<u>13.99</u>	<u>279.5</u>	<u>7.56</u>	<u>193</u>	<u>136.0</u>	<u>5.0</u>		<u>Clear</u>
<u>09:04</u>		<u>141</u>	<u>13.61</u>	<u>279.6</u>	<u>7.61</u>	<u>1934</u>	<u>140.2</u>	<u>7.5</u>		<u>"</u>
<u>09:10</u>		<u>141</u>	<u>13.51</u>	<u>236.2</u>	<u>7.63</u>	<u>1475</u>	<u>338.0</u>	<u>7.0</u>	<u>dry</u>	<u>16.20</u>
Stabilization	(+/- 10%)	(+/- 10 mV)	(+/- 1 deg.)	(+/- 1)	(+/- 10%)	(+/- 5%)	(+/- 10%)	(+/- 10.3 ft.)		

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NA</u>								

Samplers Signature(s):

SAMPLING DATA SHEET

Well ID: WIN 2008-10 Screen Interval: 40-100 Depth to Water: 58.1
 Project Name: FBI Well Diameter: 4" - 19-08 Date Measured: 9-19-08 Page 1 of 2
 Project Number: 24090858 Total Well Depth: 103.0 Measured From: 100' - N
 Task Code: 1001A Dedicated Pump: 29.9 x 3 = 81.55 Well Volume: 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: 4.00 = 4.00 at 25.05 °C pH: 7.0 = 6.90 at 24.14 °C pH: 10.00 = 9.95 at 23.35 °C
 Turbidity: NTU: 0 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard AP3 umhos/cm at 25 °C Reading 1207 umhos/cm at 26.35 °C
 Dissolved Oxygen: Meter 3.57 mg/L at 25.40 °C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-17-08 9:15 Instrument Model and Serial Number(s): YSI 6880

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1:50		1.57	13.01	109.6	7.19	3100	118.8	2.5		Water
1:50		1.58	13.09	109.6	7.19	3061	116.9	10.0		DR. SLUDGY
1:50		1.49	12.99	99.6	7.20	3074	115.7	15.0		FIR. SLUDGY
1:55		1.49	12.86	99.6	7.18	3043	109.7	20.0		FIR. SLUDGY
1:51		1.41	12.83	115.5	7.37	3078	146.8	25.0		FIR. SLUDGY
1:56		1.41	12.83	134.3	7.16	3015	103.7	32.5		FIR. SLUDGY
1:54		1.41	12.96	141.8	7.37	3076	95.8	46.0		FIR. SLUDGY
1:54		1.51	12.83	146.9	7.37	3062	107.9	52.5	55 GAL	FIR. SLUDGY
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: NA Dedicated Pump NA Non-Dedicated Pump X Hand Bailer SWBAT Low Flow/Micropurge NL-88.0 @ 1333
 Sample ID: NA Date: 9-19-08 Time: 1:50 Container Type: SWBAT Number of Containers: 1 Preservative: None Filtered Yes/No: Yes Analysis: None Comments: None
 Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MN 2028-13 Screen Interval: 40-100 Depth to Water: 59.1
 Project Name: EM Well Diameter: A Date Measured: 9-18-08
 Project Number: 74010888 Total Well Depth: 105.53 Measured From: 10.0-N Page 2 of 2
 Task Code: 10214 Dedicated Pump: 18121 + 3 = 816.0 Well Volume: 38" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 21.97 °C pH: 7.0 = 6.91 at 20.44 °C pH: 10.00 = 9.90 at 21.60 °C
 Turbidity: NTU: 0 = Reading NK NTU: 10 = Reading A NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard 1413 umhos/cm at 25 °C Reading 1414 umhos/cm at 25.02 °C
 Dissolved Oxygen: Meter 185 mg/L at 24.03 °C PID: Calibration Gas Type NK PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-18-06 @ 0850

Instrument Model and Serial Number(s): YS1 6810

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0927</u>		<u>1.16</u>	<u>13.08</u>	<u>210.9</u>	<u>7.16</u>	<u>19210</u>	<u>6.110</u>	<u>10.0</u>		<u>Water</u>
<u>0941</u>		<u>1.17</u>	<u>13.03</u>	<u>191.6</u>	<u>7.15</u>	<u>32113</u>	<u>9.200</u>	<u>10-0150</u>		<u>Water</u>
<u>0944</u>		<u>1.24</u>	<u>12.18</u>	<u>191.8</u>	<u>7.16</u>	<u>32114</u>	<u>11.15</u>	<u>30.0</u>		<u>Water</u>
<u>0947</u>		<u>1.37</u>	<u>11.95</u>	<u>189.8</u>	<u>7.15</u>	<u>31884</u>	<u>13.3010</u>	<u>40.0</u>		<u>Water</u>
<u>0950</u>		<u>1.24</u>	<u>11.98</u>	<u>180.5</u>	<u>7.16</u>	<u>31984</u>	<u>17.317</u>	<u>50.0</u>		<u>Water</u>
<u>0953</u>		<u>1.24</u>	<u>12.14</u>	<u>180.5</u>	<u>7.15</u>	<u>32214</u>	<u>17.514</u>	<u>60.0</u>		<u>Water</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump EM Hand Bailor _____ Low Flow/Micropurge _____
 Sample ID: NA Date: _____ Time: _____ Container Type: _____ Number of Containers: _____
 Filtered Yes/No: _____ Preservative: _____ Analysis: _____ Comments: _____
 Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MN208-15 Screen Interval: 515-1015 Depth to Water: 117
 Project Name: PH Well Diameter: 4" Date Measured: 9-17-08 Page 1 of 2
 Project Number: 7401838 Total Well Depth: 10.6 Measured From: TOCN
 Task Code: 180A Well Volume: 25.6 \times 3 = 76.8
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: 4.00 = 4.00 at 25.05 °C pH: 7.0 = 6.90 at 24.4 °C pH: 10.00 = 9.95 at 23.35 °C
 Turbidity: NTU: 0 = Reading NA NTU: 10 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard 410 umhos/cm at 25 °C Reading 1367 umhos/cm at 26.35 °C
 Dissolved Oxygen: Meter 5.57 mg/L at 23.40 °C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-17-08 @ 11:50

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1605		3.4	24.50	137.7	7.17	1103	246.9	5.0		17.68
1606		3.10	23.28	131.8	7.04	1618	139.8	10.0		17.68
1611		3.85	23.24	130.7	7.09	1988	140.6	35.0		17.68
1614		4.20	23.44	130.7	7.07	1095	149.7	35.0		17.68
1619		4.20	23.46	135.5	7.07	1095	149.3	43.0		17.68
1620		4.36	23.45	135.5	7.07	1074	206.8	47.0		17.68
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump X Haba/Bailer _____ Low Flow/Micropurge _____
 Sample ID NA Date _____ Time _____ Container Type _____ Number of Containers _____ Filtered Yes/No _____ Analysis _____ Comments _____
 Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Well ID: MVE-008-15 Screen Interval: 515-1615 Depth to Water: 99.88
 Project Name: ADP-DM Well Diameter: 4 Date Measured: 9-18-08
 Project Number: ADP-0828 Total Well Depth: 110.6 Measured From: TOIC-N
 Task Code: 10D14 Dedicated Pump: 0. M + 3 = 20.9 Page 2 of 2
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.00 at 20.9 °C pH: 7.0 = 6.91 at 20.4 °C pH: 10.00 = 9.90 at 21.60 °C
 Turbidity: NTU: 0 = Reading NA NTU: 1 = Reading NA Other: NTU: NA = Reading NA
 Conductivity: Standard 1413 umhos/cm at 25 °C Reading 1412 umhos/cm at 25.06 °C
 Dissolved Oxygen: Meter 183 mg/L at 24.03 °C PID: Calibration Gas Type NA PPM NA Span NA Reading NA
 Date / Time of Calibration(s): 9-18-08 @ 0830
 Instrument Model and Serial Number(s): YSI 8820

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>11:50</u>	<u>4.50</u>	<u>5.50</u>	<u>15.10</u>	<u>167.5</u>	<u>7.74</u>	<u>1709</u>	<u>48.7</u>	<u>9.0</u>		<u>CLEAR</u>
<u>11:58</u>	<u>4.50</u>	<u>5.50</u>	<u>14.91</u>	<u>163.0</u>	<u>7.68</u>	<u>1751</u>	<u>34.3</u>	<u>9.0</u>		<u>11</u>
<u>12:08</u>	<u>5.39</u>	<u>5.50</u>	<u>14.75</u>	<u>167.0</u>	<u>7.65</u>	<u>1742</u>	<u>39.2</u>	<u>11.0</u>		<u>SL. CL.</u>
Stabilization			(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Hand Bail Dedicated Pump NA Non-Dedicated Pump NA Low Flow/Micropurge NA
 Sample ID: NA Date: 9-18-08 Time: 11:50 Container Type: 20L Number of Containers: 1 Preservative: NA Filtered Yes/No: NA Analysis: NA Comments: NA
 Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: Zw-2008-01 Screen Interval: _____ Depth to Water: 16.69
 Project Name: EMI-3500A Well Diameter: _____ Date Measured: 8-16-08
 Project Number: 24096833 Total Well Depth: 18.79 Measured From: Top Cased Page 1 of 1
 Task Code: 1010 Dedicated Pump: NJ Well Volume _____

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ NTU: 10 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
 Date / Time of Calibration(s): 9/15/08 Factory Calibrate!

Instrument Model and Serial Number(s): YSI 6800-01

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1453	5 ¹ / ₄ "	6.14	27.70	241.8	3.95	1271.0	1257.7	107		
1454	Pump off dry									
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bail _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A. J. [Signature]

SAMPLING DATA SHEET

Sierita VRP

Well ID: TUR003-07 Screen Interval: _____ Depth to Water: 5.19
 Project Name: SMZ-300M Well Diameter: _____ Date Measured: 9/15/03
 Project Number: 24096833 Total Well Depth: 11.69 Measured From: HTec (RUC) Page 1 of 1
 Task Code: 10010 Dedicated Pump: NO Well Volume _____

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ NTU: 10 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at _____ °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
 Date / Time of Calibration(s): 9/15/03 Forney Calibration
 Instrument Model and Serial Number(s): YSI = 0820.09

WELL PURGING

Time	Discharge Rate (L/min)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1341	1.5	2.95	28.56	151.6	6.69	1558	1249.1	~1/2 gal		
1345		1.65	28.19	141.7	6.90	1125	1264.9	~1 gal		
1351		1.44	28.34	54.1	7.00	943	1266.4	~1 1/2 gal		
1354		1.30	28.27	-83.2	7.00	914	1264.4	~2 gal		
1359		1.36	27.65	-113.0	7.06	887	1138.1	~2 1/2		
1405		Pump off						~3 1/4		

Stabilization (+/- 10%) (+/- 10 mV) (+/- 1 deg.) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A. J. R.

9/15/03

SAMPLING DATA SHEET

Sierrita VRP

Well ID: TW-2008-07 Screen Interval: Depth to Water: 5.89
 Project Name: RMI-SUNH Well Diameter: Date Measured: 9.16.03
 Project Number: 27096838 Total Well Depth: 11.69 Measured From: TOC (PVC)
 Task Code: 10010 Dedicated Pump: NO Well Volume: Page 1 of 1

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= at °C pH: 7.0= at °C pH: 10.00= at °C
 Turbidity: NTU: 0 = Reading NTU: 1 = Reading NTU: 10 = Reading Other: NTU: = Reading
 Conductivity: Standard umhos/cm at 25 °C Reading umhos/cm at °C
 Dissolved Oxygen: Meter mg/L at °C PID: Calibration Gas Type PPM Span Reading
 Date / Time of Calibration(s): 9/15/03 Factory Calibrated
 Instrument Model and Serial Number(s): YSI 6020, 04

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
15:15	15 gpm	11.03	26.84	70.16	6.93	1338	888			
Stabilization										(+/- 0.3 ft.)

SAMPLING INFORMATION

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): 

SAMPLING DATA SHEET

Sierrita VRP

Well ID: TW-2008-02A Screen Interval: _____ Depth to Water: 5.88
 Project Name: FTN Z - Sierra Well Diameter: _____ Date Measured: 9-11-08
 Project Number: 2409633 Total Well Depth: 9.74 Measured From: TOC (POC) Page 1 of 1
 Task Code: 10010 Dedicated Pump: no Well Volume _____

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = _____ at _____ °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ NTU: 10 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
 Date / Time of Calibration(s): 9/15/08 Factory Calibrations
 Instrument Model and Serial Number(s): YSI 6826.04

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Ehi/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
12:10	1.54 gpm	0.03	28.97	138.4	3.84	1573.8	1276.1			
12:13		-0.91	28.81	-114.1	3.81	1576.3	1336.7	$\frac{1}{2}$ gal		
12:16	off	-254						$\sim \frac{3}{4}$ gal		

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bail _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): ASG

SAMPLING DATA SHEET

Sierra VRP

Well ID: TW 2003-9 Screen Interval: Depth to Water: 5.54
 Project Name: FMZ-Sierra Well Diameter: Date Measured: 9-16-08 Page 1 of 1
 Project Number: 27092833 Total Well Depth: 9.74 Measured From: 705 (PVC)
 Task Code: 18000 Dedicated Pump: NO Well Volume: 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= at °C pH: 7.0= at °C pH: 10.00= at °C
 Turbidity: NTU: 0 = Reading NTU: 1 = Reading NTU: 10 = Reading Other: NTU: = Reading
 Conductivity: Standard umhos/cm at 25 °C Reading umhos/cm at °C
 Dissolved Oxygen: Meter mg/L at °C PID: Calibration Gas Type PPM Span Reading
 Date / Time of Calibration(s): 9/16/08 Factory Calibrated
 Instrument Model and Serial Number(s): YSI 6820-04

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1418	15 L/min	3.93	28.77	162.9	3.78	1269.8	1208.7			
1419	Pump off - 15 min							1 1/2 gallon		
Stabilization			(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A. Q. S.

SAMPLING DATA SHEET

Sierra VRP

Well ID: TW 2003-10 Screen Interval: _____ Depth to Water: 574
 Project Name: FMT - Sierra Well Diameter: _____ Date Measured: 9/11/08
 Project Number: 29096338 Total Well Depth: 14.69 Measured From: Top (PVC) Page 1 of 1
 Task Code: 10010 Dedicated Pump: NV Well Volume _____

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = _____ at _____ °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ NTU: 10 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at _____ °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
 Date / Time of Calibration(s): 9/15/08 Factory Calibrated
 Instrument Model and Serial Number(s): YSI 6820/09

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1105	5.4 ml/min	2.87	26.20	-300.9	3.69	19594	1287.3	107		
1109	5.4 ml/min	1.17	28.59	-646	3.29	20156	1255.1	374 gal		
1113	5.4 ml/min	0.26	27.17	-204.1	3.55	20272	1255.3	142 gal		
1118		0.26	26.55	-209.3	3.54	20625	1248.6	294 gal		
1123		1.28	25.90	-168.9	3.54	20437	1243.8	2 1/2 gal		
1126	-Dry									
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailor _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A.S.

** Pink / Hexacoth color*

9/15/08

SAMPLING DATA SHEET

Sierrita VRP

Well ID: TW-2008-10 Screen Interval: _____ Depth to Water: 5.92
 Project Name: Fuz-Sierrita Well Diameter: _____ Date Measured: 9-16-08
 Project Number: 24086233 Total Well Depth: 14.67 Measured From: 700 (PVC) Page 1 of 1
 Task Code: 1000 Dedicated Pump: ND Well Volume: _____

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

PH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 9/15/08 Factory Calibrated
 Instrument Model and Serial Number(s): YSZ - 0820109

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
10:4	15/60	0.75	26.92	218.4 ↓	3.58	20076	1254.5	1 L		
11:29		0.66	27.42	195.6 ↓	3.57	20644	1257.8	3.5 L		
11:34		0.23	27.00	191.7 ↓	3.54	21004	1252.8	1/29.4		
11:39		0.14	26.74	198.5 ↓	3.50	21220	1251.6	3.4941		
11:47		-0.12	26.51	203.7 ↓	3.50	21068	1249.7	3.941		
11:52		0.20	26.16	201.2 ↓	3.53	21071	1246.7	3/29.1		
11:54	Pump off - Dry									
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A. J. J.

SAMPLING DATA SHEET

Sierrita VRP

Well ID: *TW-2003-13* Screen Interval: _____ Depth to Water: *9.68* / *9.81* *9/15/03*
 Project Name: *Eng-5.comb* Well Diameter: _____ Date Measured: *9-11-03* / *9/15/03*
 Project Number: *24096838* Total Well Depth: *22.5* Measured From: *Top (A/C)* Page *1* of *1*
 Task Code: *10010* Dedicated Pump: *ND* Well Volume _____

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

PH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ NTU: 10 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): *8/15/03 FACTORY CALIBRATED*

Instrument Model and Serial Number(s): *YSI 6820 . 04*

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<i>832</i>	<i>0.54/min</i>	<i>14.12</i>	<i>25.60</i>	<i>-75.9</i>	<i>7.11</i>	<i>381.3</i>	<i>383.4</i>			
<i>836</i>	<i>0.54/min</i>	<i>17.82</i>	<i>26.19</i>	<i>-87.4</i>	<i>6.91</i>	<i>387.2</i>	<i>476.7</i>			
<i>841</i>	<i>0.54/min</i>	<i>20.74</i>	<i>26.00</i>	<i>-93.8</i>	<i>6.90</i>	<i>387.6</i>	<i>273.1</i>			
<i>0846</i>	<i>0.54/min</i>	<i>25.73</i>	<i>25.74</i>	<i>-119.5</i>	<i>7.13</i>	<i>368.7</i>	<i>125.9</i>			
<i>0851</i>	<i>pump off - dry</i>							<i>1 1/2</i>		
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)			

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropump *X Peristaltic*

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): *A. G. 2*

9/15/03

SAMPLING DATA SHEET

Sierrita VRP

Well ID: TW-2008-13 Screen Interval: _____ Depth to Water: 9.94' Page 1 of 1
 Project Name: EMZ- Searls Well Diameter: 9 1/8" Date Measured: 9/15/08
 Project Number: 24026333 Total Well Depth: 22.5' Measured From: TOC (PUC)
 Task Code: 10010 Dedicated Pump: NO Well Volume: _____

FIELD INSTRUMENT CALIBRATION

pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
 Date / Time of Calibration(s): 9/15/08 Y57 Factory Calibrated.

Instrument Model and Serial Number(s): Y57 6820 201

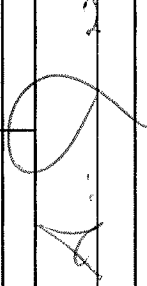
WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1003	54/min	0.93	26.56	56.2	6.47	3915	11987	N/A		
1013		0.46	26.24	12.3	6.29	3879	12320	4246		
1020		0.58	26.44	11.3	6.91	3903	11857	11541		
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bail _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s):  22

SAMPLING DATA SHEET

Sierrita VRRP

Well ID: JW 2008-14 Screen Interval: Depth to Water: 5.85' Page 1 of 1
 Project Name: FMZ-S-001b Well Diameter: Date Measured: 9/16/08
 Project Number: 24096853 Total Well Depth: 7.77' Measured From: TOC (CAV) Page 1 of 1
 Task Code: 10010 Dedicated Pump: Well Volume: Well Volume

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

PH: pH: 4.00= at _____ °C pH: 7.0= at _____ °C pH: 10.00= at _____ °C
Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ NTU: 10 = Reading _____ Other: NTU: _____ = Reading _____
Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____
Date / Time of Calibration(s): 9/16/08 Factory Calibrated
Instrument Model and Serial Number(s): YSI 6020.07

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
11:44	1.5 gpm	0.43	23.13	356.0	37.9	3455	1068	1.6		
11:47	off - Dry							1.4		
Stabilization			(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A. J.

01/15/08

SAMPLING DATA SHEET

Sierrita VWP

Well ID: <u>Tw 2003-14</u>	Screen Interval:	Depth to Water: <u>6.25</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>En Z - Sierrita</u>	Well Diameter:	Date Measured: <u>9-16-08</u>	
Project Number: <u>29086838</u>	Total Well Depth: <u>7.72</u>	Measured From: <u>700 (PVC)</u>	
Task Code: <u>10000</u>	Dedicated Pump: <u>N0</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C

Turbidity: NTU: 0 = Reading _____ NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C Reading _____ °C

Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): 9/10/08 Anthony Calbrook

Instrument Model and Serial Number(s): YSZ 6820.01

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1051	<u>.56 g/min</u>	<u>0.67</u>	<u>23.43</u>	<u>253.1</u>	<u>4.71</u>	<u>3401</u>	<u>1222.8</u>	<u>74 L</u>		
1052	<u>Pump off - dry</u>									
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____	Dedicated Pump _____	Non-Dedicated Pump _____	Hand Bailer _____	Low Flow/Micropurge _____				
Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A. J. [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: TW-2008-15 Screen Interval: _____ Depth to Water: 11.98
 Project Name: LmZ-500015 Well Diameter: _____ Date Measured: 9/1/08 Page 1 of 1
 Project Number: 34096838 Total Well Depth: 12.12 Measured From: Top (PIC)
 Task Code: 10910 Dedicated Pump: NJ Well Volume: _____
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

PH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 9/1/08 Factory Calibrated
 Instrument Model and Serial Number(s): YSZ 6020.07

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1509</u>	<u>1502</u>	<u>1.33</u>	<u>28.89</u>	<u>136.0</u>	<u>6.65</u>	<u>1709</u>	<u>812.2</u>	<u>1502</u>		
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)			

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): A. J.

1509 min

SAMPLING DATA SHEET

Sierrita VRP

Well ID: TW-2008-15 Screen Interval: _____ Depth to Water: 14.31
 Project Name: FMZ-Semco Well Diameter: _____ Date Measured: 9-16-08 Page 1 of 1
 Project Number: 27096838 Total Well Depth: 12.17 Measured From: Top (PWC)
 Task Code: 10010 Dedicated Pump: N/A Well Volume: _____
 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C
 Turbidity: NTU: 0 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C
 Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 9/15/08 Factory Calibrated
 Instrument Model and Serial Number(s): YSI - 6320, 04

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1:55:30	-Purge eff-		Dry					80Z		
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)			

SAMPLING INFORMATION

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): _____

Attachment 3 VRP Sampling Logs

Appendix D
Sampling Records

SAMPLING SHEET

Sierrita VRP

Well ID: MW-2008-01	Screen Interval: 25-60	Depth to Water: 67.25	Page 1 of 1
Project Name: FMT VRP	Well Diameter: 4	Date Measured: 10/17/08	
Project Number: 24096838	Total Well Depth: 88.75	Measured From: top of casing	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.98 at 32.3 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.2 NTU: 10 = Reading 0.45 NTU: 1 = Reading ✓ Other: NTU: 100 = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 32.3 °C

Dissolved Oxygen: Meter 7.24 mg/L at 32.3 °C PID: Calibration Gas Type Ø PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): _____

Instrument Model and Serial Number(s): _____

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity* (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1642		8.04	25.4	124	6.29	0.27	47.8	<.20		67.32
1647		6.62	24.6	118	6.26	0.27	86.1	0.25		67.51
1652		5.88	24.5	122	6.33	0.27	82.3	0.30		67.52
1659		5.12	25.5	130	6.30	0.27	102.0	0.35		67.50
1704		4.95	26.0	125	6.37	0.27	-5.0	0.40		67.45
1711		4.80	26.1	125	6.42	0.27	650.0	0.56		67.44
1715		4.84	25.4	127	6.40	0.27	425.0	0.75		67.44
1719	0.0554/m	4.68	25.1	129	6.38	0.27	920.0	1.0		67.44
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

water was clear approx. 5 NTU, meter was not working properly.

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-01	10/17/08	1725	Plastic Ziploc	1	HNO ₃	Yes	Metals	
MW-2008-01		1725	1 gallon	1	HNO ₃	Yes	radionuclides	
MW-2008-01		1725	1 gallon	1	HNO ₃	NO	radionuclides	
MW-2008-01	✓	1725	250ml	1	H ₂ SO ₄	NO	anions	

Samplers Signature(s): Jessica Maurer

SAMPLING SHEET

Sierrita VRP

Well ID: MW-2008-02	Screen Interval: 22-62	Depth to Water: 30.63	Page 1 of 1
Project Name: FMI VRP	Well Diameter: 4	Date Measured: 10/18/08	
Project Number: 24096838	Total Well Depth: 84.565	Measured From: top of casing	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 25.1 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 100 of 25.1 °C calibration using 100 NTU because meter was not working f. by

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 25.1 °C

Dissolved Oxygen: Meter 8.50 mg/L at 25.1 °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): 10/18/08 0720

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0740		3.23	23.1	-8	6.32	0.90	83.6	<0.20		30.68
0749		3.83	22.9	-111	6.54	0.90	99.4	0.25		30.87
0754	10 mL/m	3.89	22.6	-112	6.55	0.90	117.0	0.25		30.86
0757	10 mL/m	3.91	22.4	-112	6.56	0.90	122.0	0.25		30.86
0800	10 mL/m	3.81	22.5	-112	6.57	0.90	127.0	0.25		30.85
0803	10 mL/m	3.70	22.7	-111	6.57	0.89	132.0	0.25		30.85
								Total	gallons purged	
										less than 0.5 Gal
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

125 mL per 14 M

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Baller Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-02	10/19/08	0810	250 mL	1	HNO ₃	Yes	metals	
MW-2008-02	10/18/08	0810	1 Gallon	1	HNO ₃	Yes	radionuclides	
MW-2008-02	10/18/08	0810	1 Gallon	1	HNO ₃	NO	radionuclides	
MW-2008-02	10/18/08	0810	250 mL	1	H ₂ SO ₄	NO	Anions	
MW-2008-02	10/18/08	0810	250 mL	1	none	NO	turbidity check	

Samplers Signature(s): Yvonne Mauer

SAMPLING SHEET

Sierrita VRP

Well ID: MW-2008-03	Screen interval: 22-62	Depth to Water: 33.32	Page 1 of 1
Project Name: FM1 VRP	Well Diameter: 4	Date Measured: 10/18/08	
Project Number: 24096838	Total Well Depth: 65.95	Measured From: top	
Task Code: 10615	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 22.8 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 22.8 °C

Dissolved Oxygen: Meter 8.76 mg/L at 22.8 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/18/08 0900

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0911	31.25ml/min	7.41	25.3	156	6.69	0.78	10.5	<0.10		33.30
0917	31.25ml/min	7.11	26.1	152	6.71	0.77	17.5			33.35
0920	31.25ml/min	7.60	26.6	150	6.73	0.77	20.9			33.37
0925	31.25ml/min	6.91	26.8	148	6.73	0.78	19.0	0.20		33.40
0928	31.25ml/min	6.92	27.0	149	6.70	0.78	23.1	0.20		33.43
0932	31.25ml/min	6.97	26.8	150	6.68	0.78	34.7	0.20		33.45
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

8min to fill 250ml

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-03	10/18/08	0940	250ml	1	HNO ₃	Yes	metals	
MW-2008-03	10/18/08	0940	1 Gal	1	HNO ₃	Yes	nucleides	
MW-2008-03	10/18/08	0940	1 Gal	1	HNO ₃	NO	nucleides	
MW-2008-03	10/18/08	0940	250ml	1	H ₂ SO ₄	NO	Anions	
MW-2008-03	10/18/08	0940	250ml	1	none	NO	turbidity	check

Samplers Signature(s): *[Signature]*

SAMPLING SHEET

Sierrita VRP

Well ID: MW-2008-04	Screen Interval: 22-62	Depth to Water: 33.38	Page 1 of 1
Project Name: FMI VRP	Well Diameter: 4	Date Measured: 10/18/08	
Project Number: 24096838	Total Well Depth: 65.84	Measured From: 70C	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 27.3 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C
 Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 27.3 °C
 Dissolved Oxygen: Meter 8.94 mg/L at 27.3 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 10/18/08 1045

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1243	125ml/min	2.72	26.5	71	6.64	0.66	111.0	X		33.48
1246	125ml/min	1.70	26.8	60	6.68	0.66	182.0			33.51
1250	125ml/min	1.93	27.1	53	6.69	0.65	305.0			33.56
1253	125ml/min	1.47	27.1	48	6.71	0.66	58.3			33.58
1257		1.71	26.9	45	6.71	0.66	83.4			33.59
1300		1.64	27.2	44	6.71	0.66	70.3	1.06 gal		33.61
1303		1.63	26.8	43	6.72	0.66	108.0	1.25 gal		33.62
* Air bubbles in flow throw-cell reflecting the reading -9										
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

- Slowed pump rate
 reflecting the reading -9

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-04	10/18/08	1310	250ml	1	HNO ₃	Yes	Metal	
MW-2008-04	10/18/08	1310	1 Gal	1	HNO ₃	Yes	radiochemicals	
MW-2008-04	10/18/08	1310	1 Gal	1	HNO ₃	NO	radiochemicals	
MW-2008-04	10/18/08	1310	250ml	1	H ₂ SO ₄	NO	Anions	
MW-2008-04	10/18/08	1310	250ml	1	none	NO	turbidity check	

Samplers Signature(s): *Terence Mauer*

SAMPLING SHEET

Sierrita VRP

Well ID: <u>MW-2008-05</u>	Screen Interval: <u>53.08</u>	Depth to Water: <u>27.21</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>21</u>	Date Measured: <u>10/18/08</u>	
Project Number: <u>29 24098838</u>	Total Well Depth: <u>53.08</u>	Measured From: <u>top</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 27.3 °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 27.3 °C

Dissolved Oxygen: Meter 8.94 mg/L at 27.3 °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): 10/18/08 1045

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1058	38 ml/min	5.02	26.0	193	6.60	0.22	33.0			27.21
1103	38 ml/min	6.00	26.3	193	6.54	0.21	36.5			27.28
1106	38 ml/min	5.64	27.3	195	6.56	0.21	37.0	250ml		27.29
1110	38 ml/min	5.37	27.9	181	6.73	0.21	36.7			27.29
1113	38 ml/min	5.40	27.9	178	6.71	0.21	40.3			27.30
1117	38 ml/min	5.44	27.7	178	6.67	0.22	38.7	500ml		27.30
1120	38 ml/min	5.39	27.8	177	6.67	0.22	43.3	575ml		27.30
									↳ total purge volume	
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

6.5 min for 250ml

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-05	10/18/08	1125	250 ml	1	HNO ₃	Yes	metals	
MW-2008-05	10/18/08	1125	1 Gal	1	HNO ₃	Yes	radioisotopes	
MW-2008-05	10/18/08	1125	1 Gal	1	HNO ₃	NO	radioisotope	
MW-2008-05	10/18/08	1125	250 ml	1	H ₂ SO ₄	NO	Anions	
MW-2008-05	10/18/08	1125	250 ml	1	none	NO	turbidity check	

Samplers Signature(s): Josiah M...

SAMPLING DATA SHEET

Sierrita VFP

Well ID: MW-2008-06	Screen Interval: 10-40	Depth to Water: 15.06	Page 1 of 1
Project Name: FMI VFP	Well Diameter: 4	Date Measured: 10/19/08	
Project Number: 24096834	Total Well Depth: 42.50	Measured From: toe	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 20.1 °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.1 °C

Dissolved Oxygen: Meter 9.59 mg/L at 20.1 °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): 10/19/08 0720

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0741	63ml/min	6.67	23.6	151	6.74	0.65	0.0			15.11
0746	63ml/min	6.99	23.5	142	6.91	0.66	1.1			15.20
0750	63ml/min	6.90	23.6	141	6.94	0.66	9.7	250ml		15.21
0753	63ml/min	6.75	23.7	141	6.95	0.66	28.7			15.23
0756	63ml/min	6.67	23.7	140	6.96	0.66	92.2			15.25
0801	63ml/min	6.54	23.8	141	6.96	0.66	140.0	500ml		15.26
0805	63ml/min	6.54	24.0	141	6.96	0.65	257.0			15.28
0808	63ml/min	6.53	24.1	141	6.96	0.65	218.0			15.28
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

4min to fill 250ml

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-06	10/19/08	0815	250ml	1	HNO ₃	Yes	metals	
MW-2008-06	10/19/08	0815	1 gal	1	HNO ₃	Yes	radioactivity	
MW-2008-06	10/19/08	0815	1 gal	1	HNO ₃	NO	radioactivity	
MW-2008-06	10/19/08	0815	250ml	1	H ₂ SO ₄	NO	Anions	
MW-2008-06	10/19/08	0815	250ml	1	none	NO		Turbidity check

Samplers Signature(s): Yamir Maurer

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MW-2008-07	Screen Interval: 23-45	Depth to Water: 24.83	Page 1 of 1
Project Name: FMI VRP	Well Diameter: 4	Date Measured: 10/19/08	
Project Number: 24098638	Total Well Depth: 48.68	Measured From: FOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0026 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 20.1 °C pH: 7.00 = _____ at _____ °C pH: 10.00 = _____ at _____ °C
 Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.1 °C
 Dissolved Oxygen: Meter 9.59 mg/L at 20.1 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 10/19/08 0720
 Instrument Model and Serial Number(s):

WELL PURGING

8min to fill 250ml

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0959	32ml/min	5.79	26.8	191	6.19	0.53	25.6			25.00
1003	32ml/min	5.30	27.9	190	6.19	0.53	36.3			24.99
1006	32ml/min	5.06	28.7	187	6.22	0.53	43.3			24.99
1011	32ml/min	4.84	29.5	183	6.24	0.53	60.9			24.99
1014	32ml/min	4.85	29.6	183	6.23	0.53	71.1			24.99
1017	32ml/min	4.88	29.8	183	6.21	0.53	64.2	0.256al		24.99
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurga

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-07	10/19/08	1020	250ml	1	HNO3	Yes	metals	
MW-2008-07	10/19/08	1020	1 Gal	1	HNO3	Yes	radioisotopes	
MW-2008-07	10/19/08	1020	1 Gal	1	HNO3	NO	radioisotopes	
MW-2008-07	10/19/08	1020	250ml	1	H2SO4	NO	Anions	
MW-2008-07	10/19/08	1020	250ml	1	none	NO	turbidity check	

Samplers Signature(s): Joseph Maurer

SAMPLING SHEET

Sierrita VRR

Well ID: MW-2008-08	Screen Interval: 36.75-46.75	Depth to Water: 22.23	Page 1 of 1
Project Name: FMI VRR	Well Diameter: 4	Date Measured: 10/19/08	
Project Number: 24098838	Total Well Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 20.1 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at _____ °C

Dissolved Oxygen: Meter 9.59 mg/L at 20.1 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/19/08 0720

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1332	29ml/min	8.07	26.1	89	6.71	0.49	122.0			22.23
1336	29ml/min	7.47	25.9	98	6.71	0.49	120.0			22.21
1341	29ml/min	6.23	28.1	108	6.72	0.49	177.0			22.35
1345	29ml/min	5.72	29.4	111	6.74	0.48	234.3			22.37
1349	29ml/min	5.51	29.9	113	6.75	0.47	287.0			22.39
1354	29ml/min	5.45	30.1	117	6.76	0.47	328.0			22.40
1357	29ml/min	5.48	29.8	119	6.77	0.47	353.0	0.506		22.43
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-08	10/19/08	1400	250ml	1	HNO3	Yes	metals	
MW-2008-08	10/19/08	1400	1gal	1	HNO3	Yes	Radionuclides	
MW-2008-08	10/19/08	1400	1gal	1	HNO3	NO	Radionuclides	
MW-2008-08	10/19/08	1400	250ml	1	H2SO4	NO	Anions	
MW-2008-08	10/19/08	1400	250ml	1	None	NO	turbidity	check

Samplers Signature(s): *[Signature]*

8.5 min to fill 250ml

SAMPLING SHEET

Sierrita VRP

Well ID: MW-2008-09	Screen Interval: 15-50	Depth to Water: 30.12	Page 1 of 1
Project Name: FM VRP	Well Diameter: 4	Date Measured: 10/19/08	
Project Number: 24096838	Total Well Depth: 53.50	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 20.1 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.1 °C

Dissolved Oxygen: Meter 9.59 mg/L at 20.1 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/19/08 0720

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1130	63ml/min	2.20	24.5	308	3.64	0.56	57.4			30.18
1133	63ml/min	3.57	24.7	306	3.64	0.56	52.1			30.28
1138	63ml/min	3.44	26.3	305	3.67	0.56	73.8			30.30
1141	63ml/min	3.70	27.1	304	3.69	0.55	93.8			30.34
1144	63ml/min	3.94	27.4	303	3.70	0.55	94.7			30.35
1147	63ml/min	3.91	28.0	303	3.71	0.54	105.0			30.37
1152	63ml/min	3.70	28.5	304	3.71	0.55	104.0	0.25 Gal		30.38
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

fill to 250 Gal

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-09	10/19/08	1200	250ml	1	HNO ₃	Yes	metals	
MW-2008-09	10/19/08	1200	1 Gal	1	HNO ₃	Yes	radionuclides	
MW-2008-09	10/19/08	1200	1 Gal	1	HNO ₃	NO	radionuclides	
MW-2008-09	10/19/08	1200	250ml	1	H ₂ SO ₄	NO	Amions	
MW-2008-09	10/19/08	1200	250ml	1	none	NO	turbidity	check

Samplers Signature(s): [Signature]

SAMPLING SHEET

Sierrita VRRP

Well ID: MW-2008-10	Screen Interval: 15-50	Depth to Water: 29.30	Page 1 of 1
Project Name:	Well Diameter: 4	Date Measured: 10/20/08	
Project Number: 24096838	Total Well Depth: 54.05	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume:	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 21.8 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 95.7

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 21.8 °C

Dissolved Oxygen: Meter 8.68 mg/L at 21.8 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/20/08 0830 ORP 92mV at 22 °C

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0916	250ml/min	5.63	24.2	255	5.56	0.53	23.1			29.43
0919		5.57	24.6	253	5.56	0.53	35.1			29.47
0924		4.97	25.4	250	5.63	0.53	35.3			29.48
0928		4.86	26.3	246	5.67	0.53	36.8			29.49
0932		4.71	26.5	245	5.68	0.52	34.7			29.50
0936		4.79	26.5	244	5.69	0.53	37.5	0.5 gal		29.50
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-10	10/20/08	0940	250ml	1	HNO3	Yes	metals	
MW-2008-10	10/20/08	0940	1 Gal	1	HNO3	Yes	radionuclides	
MW-2008-10	10/20/08	0940	1 Gal	1	HNO3	NO	radionuclides	
MW-2008-10	10/20/08	0940	250ml	1	H2SO4	NO	Anions	
MW-2008-10	10/20/08	0940	250ml	1	none	NO	turbidity check	Not taken DM

Samplers Signature(s): *[Signature]*

SAMPLING SHEET

Sierrita VRF

Well ID: MW-2008-11	Screen Interval: 27-52	Depth to Water: 13.67	Page 1 of 1
Project Name: FMI URP	Well Diameter: 4	Date Measured: 10/20/08	
Project Number: 24096838	Total Well Depth: 56.8	Measured From: 70'	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00 = 3.99 at 21.8 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C
 Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 95.7
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 21.8 °C
 Dissolved Oxygen: Meter 8.68 mg/L at 21.8 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 10/20/08 0830 ORP = 92mV at 22°C

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1329	83ml/min	7.15	26.6	277	5.74	0.27	7.9			13.78
1333	83ml/min	6.85	27.2	248	6.14	0.29	14.3			13.80
1337	83ml/min	6.83	27.3	239	6.20	0.30	20.6			13.81
1340	83ml/min	6.87	27.1	237	6.21	0.30	55.5			13.82
1343	83ml/min	7.10	26.4	237	6.20	0.30	78.4			13.82
1346	83ml/min	6.92	26.8	234	6.20	0.30	87.3			13.82
1349	83ml/min	6.95	26.5	234	6.20	0.30	101.0			13.82
1352	83ml/min	6.90	26.5	232	6.18	0.30	129.0	0.56 gal		13.82
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

3 min for 250ml

turbidity checked with Lamotte turbidity meter was 9.07 ntu
 1.01 ntu
 0.72 ntu
 5.54 ntu
 0.13 ntu

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-11	10/20/08	1355	250ml	1	HNO ₃	Yes	metals	
MW-2008-11	10/20/08	1355	1 gal	1	HNO ₃	Yes	radionuclides	
MW-2008-11	10/20/08	1355	1 gal	1	HNO ₃	NO	radionuclides	
MW-2008-11	10/20/08	1355	250ml	1	H ₂ SO ₄	NO	Anions	
MW-2008-11	10/20/08	1355	250ml	1	None	NO	Turbidity check	

Samplers Signature(s): *Frank Maurer*

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MW-2008-12	Screen Interval: 100-155	Depth to Water: 92.89	Page 1 of 1
Project Name: FMI VRP	Well Diameter: 4	Date Measured: 10/21/08	
Project Number: 24096838	Total Well Depth: 159	Measured From: to c	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 20.2 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.2 °C

Dissolved Oxygen: Meter 8.88 mg/L at 20.2 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/21/08 08 0730 ORP at 88 mV at 20.2 °C Standard 95 mV

Instrument Model and Serial Number(s):

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0935		3.42	24.4	71	7.32	0.26	0.30			93.04
0949		2.15	24.4	77	7.33	0.26	0.41			93.22
0954		1.89	23.4	80	7.29	0.26	3.10	1.5 Gal		95.50
1042		5.29	23.7	80	7.34	0.26	4.04	5.0 Gal		100.61
1120		1.72	23.6	78	7.43	0.26	3.09	10.0 Gal		104.90
1230		0.91	24.3	65	7.52	0.26	2.90	15.0 Gal		106.14
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

draw down more than 3ft with pump well water out and sample later.

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Need to sample

Samplers Signature(s): _____

SAMPLING SHEET

Continued from prior date **Sierrita VRP**

Well ID: <u>NW-2008-12</u>	Screen Interval: <u>*</u>	Depth to Water: <u>98.51</u>	Page <u>2</u> of <u>2</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>*</u>	Date Measured: <u>10-29-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>*</u>	Measured From: <u>TC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>*</u>	Well Volume 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.	

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00= 4.01 at 24.45 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C
 Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 96.2
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 24.45 °C
 Dissolved Oxygen: Meter 8.24 mg/L at 24.45 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 10/29/08 @ 0930 ORP: 7983 mV @ 24.45 °C
 Instrument Model and Serial Number(s): HANNA U22XD SN 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1045</u>	<u>na</u>	<u>6.20</u>	<u>23.61</u>	<u>70</u>	<u>6.26</u>	<u>0.26</u>	<u>10.6</u>	<u>na</u>	<u>na</u>	<u>98.51</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>NW-2008-12</u>	<u>10/29/08</u>	<u>1145</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	
<u>NW-2008-12D</u>	<u>10/29/08</u>	<u>1145</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	

Samplers Signature(s): Kem Wal

SAMPLING SHEET

Sierrita VRP

Well ID: MW-2008-13	Screen Interval: 40-100	Depth to Water: 35.40 58.40	Page 1 of 1
Project Name: FMI VRP	Well Diameter: 4	Date Measured: 10/21/08	
Project Number: 24096838	Total Well Depth: 103.91	Measured From: 100	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 20.2 °C pH: 7.0 = _____ at _____ °C pH: 10.00 = _____ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.2 °C

Dissolved Oxygen: Meter 8.88 mg/L at 20.2 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/21/08

Instrument Model and Serial Number(s): _____

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1307	83ml/min	5.53	26.0	107	6.75	0.38	6.1			58.45
1308	83ml/min	5.11	27.1	98	6.78	0.38	11.6			58.50
1314	83ml/min	4.88	27.1	93	6.76	0.38	12.4			58.55
1318	83ml/min	4.69	27.9	93	6.75	0.38	2.96			58.56
1321	83ml/min	4.75	27.0	92	6.74	0.39	4.01			58.61
1324	83ml/min	4.58	27.1	91	6.70	0.38	5.40			58.64
1328	83ml/min	4.28	28.1	88	6.73	0.38	3.30			58.66
1331	83ml/min	4.12	28.7	89	6.73	0.38	4.17			58.66
1334	83ml/min	4.00	29.1	90	6.72	0.38	2.96			58.67
1337	83ml/min	4.01	29.3	92	6.72	0.38	3.09	0.50 gal		58.68
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

3 min to fill 250ml

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-13	10/21/08	1340	*	*	*	*	*	See COC
MW-2008-13MSD	10/21/08	1340	*	*	*	*	*	See COC

Samplers Signature(s): [Signature]

SAMPLING A SHEET

Sierrita VRP

Well ID: <i>MW-2008-14</i>	Screen Interval:	Depth to Water:	Page <u> </u> of <u> </u>
Project Name: <i>FM VRP</i>	Well Diameter:	Date Measured:	
Project Number: <i>24096838</i>	Total Well Depth:	Measured From:	
Task Code: <i>10015</i>	Dedicated Pump:	Well Volume:	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.93 at 16.71 °C pH: 7.0= X at °C pH: 10.00= X at °C

Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 100 = Reading 98.6

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 16.71 °C

Dissolved Oxygen: Meter 9.97 mg/L at 16.71 °C PID: Calibration Gas Type PPM Span Reading

Date / Time of Calibration(s): 11/17/08 @ 0800

Instrument Model and Serial Number(s): *Horiba U22XD #8153008*

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<i>1415</i>		<i>5.63</i>	<i>23.35</i>	<i>223</i>	<i>7.43</i>	<i>94 uS/cm</i>	<i>5.0</i>			<i>Not Measured</i>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<i>MW-2008-14</i>	<i>11/17/08</i>	<i>1415</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>	<i>*</i>

Samplers Signature(s): *Ken Wald*

SAMPLING DATA SHEET**Sierrita VRP**

Well ID: <i>MW-2008-15</i>	Screen Interval:	Depth to Water: <i>52.31'</i>	Page <i>1</i> of <i>1</i>
Project Name: <i>FMI VRP</i>	Well Diameter: <i>4.0"</i>	Date Measured: <i>11/5/08</i>	
Project Number: <i>24096838</i>	Total Well Depth: <i>117.35</i>	Measured From: <i>70C</i>	
Task Code: <i>10015</i>	Dedicated Pump:	Well Volume	

3/8" - 0.0025 gal./ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = *4.0* at *24.34* °C pH: 7.0 = *X* at °C pH: 10.00 = *X* at °C

Turbidity: NTU: 0 = Reading *0.0* NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU:100 = Reading *101.0*

Conductivity: Standard *0.449* umhos/cm at 25 °C Reading *0.45* umhos/cm at *24.34* °C

Dissolved Oxygen: Meter *8.51* mg/L at *24.34* °C PID: Calibration Gas Type *X* PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): *11/5/08 @ 1345* ORP *89 mV*: *91 mV @ 22.66 °C*

Instrument Model and Serial Number(s): *Hanna U22XD #8153008*

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<i>1430</i>		<i>5.49</i>	<i>24.59</i>	<i>102</i>	<i>7.09</i>	<i>0.15</i>	<i>54.4</i>			<i>52.31</i>
<i>1434</i>		<i>4.34</i>	<i>24.06</i>	<i>107</i>	<i>7.14</i>	<i>0.15</i>	<i>42.8</i>			<i>52.41</i>
<i>1437</i>		<i>3.98</i>	<i>23.83</i>	<i>08</i>	<i>7.15</i>	<i>0.15</i>	<i>44.6</i>			<i>52.46</i>
<i>1440</i>		<i>3.58</i>	<i>23.82</i>	<i>108</i>	<i>7.15</i>	<i>0.14</i>	<i>62.7</i>			<i>52.50</i>
<i>1443</i>		<i>3.20</i>	<i>23.81</i>	<i>107</i>	<i>7.16</i>	<i>0.14</i>	<i>51.2</i>			<i>52.51</i>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<i>MW-2008-15</i>	<i>11/5/08</i>	<i>1445</i>	<i>4 containers</i>					<i>see log</i>

Samplers Signature(s): *Ken Wald*

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>TW-2008-04</u>	Screen Interval:	Depth to Water:	Page <u>1</u> of <u>1</u>
Project Name:	Well Diameter:	Date Measured: <u>11-6-08</u>	
Project Number:	Total Well Depth:	Measured From:	
Task Code:	Dedicated Pump:	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= _____ at _____ °C pH: 7.0= _____ at _____ °C pH: 10.00= _____ at _____ °C

Turbidity: NTU: 0 = Reading _____ NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: _____ = Reading _____

Conductivity: Standard _____ umhos/cm at 25 °C Reading _____ umhos/cm at _____ °C

Dissolved Oxygen: Meter _____ mg/L at _____ °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): _____

Instrument Model and Serial Number(s): _____

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
			<u>not</u>	<u>Available</u>						
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): Original Form Lost. RC

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>TW-2008-07</u>	Screen Interval: <u>4.9</u>	Depth to Water: <u>10.59</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>1.0"</u>	Date Measured: <u>11/4/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>9.0'</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

pH:	pH: 4.00 = <u>4.0</u> at <u>21.95</u> °C	pH: 7.0 = <u>X</u> at _____ °C	pH: 10.00 = <u>X</u> at _____ °C
Turbidity:	NTU: 0 = Reading <u>0.0</u>	NTU: 10 = Reading <u>X</u>	NTU: 1 = Reading <u>X</u> Other: NTU: <u>100</u> = Reading <u>99.3</u>
Conductivity:	Standard <u>0.449</u> umhos/cm at 25 °C	Reading <u>0.45</u> umhos/cm at <u>21.95</u> °C	
Dissolved Oxygen:	Meter <u>8.73</u> mg/L at <u>21.95</u> °C	PID: Calibration Gas Type <u>X</u>	PPM _____ Span _____ Reading _____
Date / Time of Calibration(s):	<u>11/4/08 0940</u>		
Instrument Model and Serial Number(s):	<u>Horiba U22XD #8153008</u>		

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1235</u>	<u>na</u>	<u>8.09</u>	<u>26.02</u>	<u>84</u>	<u>6.96</u>	<u>0.22</u>	<u>63.0</u>	<u>na</u>	<u>na</u>	<u>10.59</u>
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailor _____ Low Flow/Micropurge <u>Peri. Pump</u>							
Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis
<u>TW-2008-07</u>	<u>11/4/08</u>	<u>1235</u>	<u>250 uL</u>	<u>1</u>	<u>H2SO4</u>	<u>n</u>	<u>See Log</u>

Samplers Signature(s): K. Kwan

SAMPLING DATA SHEET

Sierrita VRP

Well ID: TW-2008-09	Screen Interval: 2-7	Depth to Water: 6.68	Page 1 of 1
Project Name: FMI VRP	Well Diameter: 1.0"	Date Measured: 11/3/08	
Project Number: 24096838	Total Well Depth: 7	Measured From: 70C	
Task Code: 10015	Dedicated Pump: n	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 20.66 °C pH: 7.0= X at °C pH: 10.00= X at °C
 Turbidity: NTU: 0 = Reading 0.8 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 99.3
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.66 °C
 Dissolved Oxygen: Meter 8.95 mg/L at 20.66 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 11/3/08 @ 0800 ORP 89 mV: 93 mV
 Instrument Model and Serial Number(s): Horiba U22KD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1415	na	8.56	26.34	158	4.20	1.7	-5.0	na	na	6.68
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge Peristaltic Pump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): _____

SAMPLING SHEET

Sierrita VRP

Well ID: <u>TW-2008-10</u>	Screen Interval: <u>2-12</u>	Depth to Water: <u>7.22</u>	Page <u>1</u> of <u> </u>
Project Name: <u>EM VRP</u>	Well Diameter: <u>1.0"</u>	Date Measured: <u>11/3/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>12</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>1</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00= 4.0 at 20.66°C pH: 7.0= X at °C pH: 10.00= X at °C
 Turbidity: NTU: 0 = Reading 0.8 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 99.3
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.66 °C
 Dissolved Oxygen: Meter 8.95 mg/L at 20.66°C PID: Calibration Gas Type PPM Span Reading
 Date / Time of Calibration(s): 11/3/08 @ 0800 ORP 89mV: 93mV
 Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1010</u>	<u>-</u>	<u>7.93</u>	<u>25.96</u>	<u>3</u>	<u>3.85</u>	<u>2.3</u>	<u>-5.0</u>	<u>-</u>	<u>-</u>	<u>7.22</u>

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Perc Pump.

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>TW-2008-10</u>	<u>11/3/08</u>	<u>1010</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄</u>	<u>N</u>	<u>Sulfate</u>	

Samplers Signature(s): K. W. Wood

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>TW-2008-11</u>	Screen Interval: <u>2-12</u>	Depth to Water: <u>9.11</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>1.0"</u>	Date Measured: <u>11/3/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>12</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 20.66 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.8 NTU: 10 = Reading X NTU: 1 = Reading 0 Other: NTU: 100 = Reading 99.3

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.66 °C

Dissolved Oxygen: Meter 8.95 mg/L at 20.66 °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): 11/3/08 @ 0800

Instrument Model and Serial Number(s): Horiba U27XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1315</u>	<u>na</u>	<u>7.94</u>	<u>27.67</u>	<u>177</u>	<u>3.68</u>	<u>1.7</u>	<u>-5.0</u>	<u>na</u>	<u>na</u>	<u>9.11</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge Peristaltic Pump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): Ken Wald

SAMPLING SHEET

Sierrita VRP

Well ID: <u>TW-2008-13</u>	Screen Interval: <u>10-20</u>	Depth to Water: <u>10.49</u>	Page <u>1</u> of <u> </u>
Project Name: <u>Fm VLP</u>	Well Diameter: <u>1.0"</u>	Date Measured: <u>11/3/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>20</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 20.66 °C pH: 7.0= X at °C pH: 10.00= X at °C
 Turbidity: NTU: 0 = Reading 0.8 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 99.3
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.66 °C
 Dissolved Oxygen: Meter 8.95 mg/L at 20.66 °C PID: Calibration Gas Type PPM Span Reading
 Date / Time of Calibration(s): 11/3/08 @ 0800 ORP 89 mV : 93 mV

Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0930</u>	<u>na</u>	<u>8.04</u>	<u>24.69</u>	<u>-82</u>	<u>6.64</u>	<u>0.42</u>	<u>17.4</u>			<u>10.49</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Peristaltic Pump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtred Yes/No	Analysis	Comments
<u>TW-2008-13</u>	<u>11/3/08</u>	<u>0930</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄</u>	<u>N</u>		

Samplers Signature(s): _____

SAMPLING SHEET

Sierrita VRP

Well ID: <u>TW-2008-15KW</u>	Screen Interval: <u>5-10</u>	Depth to Water:	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>1.0"</u>	Date Measured: <u>11/3/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>10</u>	Measured From: <u>TC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 20.66 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.8 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 99.3

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.95 umhos/cm at 20.66 °C

Dissolved Oxygen: Meter 8.95 mg/L at 20.66 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 11/3/08 @ 0800 ORP 89 mV : 93 mV

Instrument Model and Serial Number(s): Hanna U22XP #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
										<u>n/a</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): _____

SAMPLING A SHEET

Sierrita VRP

Well ID: <u>PZ-2008-16</u>	Screen Interval:	Depth to Water:	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter:	Date Measured:	
Project Number: <u>24096838</u>	Total Well Depth:	Measured From:	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.93 at 16.71 °C pH: 7.0 = X at _____ °C pH: 10.00 = X at _____ °C
Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 98.6
Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 16.71 °C
Dissolved Oxygen: Meter 9.47 mg/L at 16.71 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
Date / Time of Calibration(s): 11/17/08 @ 0800
Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1000</u>		<u>10.13</u>	<u>14.95</u>	<u>157</u>	<u>8.55</u>	<u>0.42</u>	<u>5.0</u>	-	-	
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump X Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>PZ-2008-16</u>	<u>11/17/08</u>	<u>1000</u>	<u>*</u>	<u>**</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>

Samplers Signature(s): Ken Wil

SAMPLING A SHEET

Sierrita VRP

Well ID: PZ-2008-19	Screen Interval:	Depth to Water: 109.35'	Page 1 of 1
Project Name: FMI VRP	Well Diameter:	Date Measured: 11/12/08	
Project Number: 24096838	Total Well Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump:	Well Volume:	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.93 at 16.71 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C
 Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 98.6
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 16.71 °C
 Dissolved Oxygen: Meter 9.47 mg/L at 16.71 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 11/12/08 @ 0830 ORP 89 mV: 100 mV
 Instrument Model and Serial Number(s): Horiba u22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1320		5.88	19.87	2	8.41	0.94	235.0	—	—	109.35
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-2008-19	11/17/08	1320	*	*	*	*	*	see log

Samplers Signature(s): K. Wal

SAMPLING SHEET

PZ-2008-20

Sierrita VRP

Well ID: 5B03	Screen Interval:	Depth to Water: 144.02' <i>bas TOC</i>	Page 1 of 1
Project Name: FMI VRP	Well Diameter:	Date Measured: 11/12/08	
Project Number: 24096838	Total Well Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump:	Well Volume:	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00= 3.93 at 16.71 °C pH: 7.0= ✓ at _____ °C pH: 10.00= ✓ at _____ °C
 Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 98.6
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 16.71 °C
 Dissolved Oxygen: Meter 9.47 mg/L at 16.71 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 11/12/08 @ 0830 ORP 89mV : 100mV

Instrument Model and Serial Number(s): Haniba U22XD #8157008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1230	na	10.03	19.14	6+ku 99	6.09	0.40	968	—	—	144.02

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-2008-20	11/12/08	1230	*	*	*	*	*	See LOC

Samplers Signature(s): Ku Wal

SAMPLING SHEET

Sierrita VRP

Well ID: <u>BW-2</u>	Screen Interval: <u>19-95</u>	Depth to Water: <u>14.87</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMT VRP</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-9-08</u>	
Project Number: <u>24096238</u>	Total Well Depth: <u>123</u>	Measured From: <u>top sounding tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>70.3 gal</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.91 at 20.8 °C pH: 7.0 = ✓ at °C pH: 10.00 = ✓ at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 101.0

Conductivity: Standard 0.449 ~~umhos/cm~~ at 25 °C Reading 0.45 ~~umhos/cm~~ at 20.8 °C

Dissolved Oxygen: Meter 9.2 mg/L at 20.8 °C PID: Calibration Gas Type ✓ PPM Span Reading

Date / Time of Calibration(s): 8.52 570 10-9-08 0725

Instrument Model and Serial Number(s): Horba u22 x0 # 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1045	4 gal	7.8	24.9	-100	6.46	0.97	904	—	—	14.87
1050	4 gal	6.8	23.9	-210	7.06	0.96	360	20	0.3	20.08
1055	4 gal	0.6	23.9	-265	7.23	0.99	237	40	0.6	32.1
1100	4 gal	0.0	23.9	-274	7.27	0.99	133	60	0.8	34.10
1105	4 gal	0.0	24.1	-271	7.25	0.99	91.4	100	1.42	57.05
1115	2	0.0	24.7	-284	7.16	0.98	120	120	1.70	67.20
1125	2	0.0	24.9	-208	6.60	0.95	985	140	1.99	77.37
1130	well	will not	make	it to 3 volumes.	open flow and purge dry now. water					rusty brown.
1340		8.3	24.3	11	6.99	0.98	5.0	—	—	16.47
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>BW-2</u>	<u>10/9/08</u>	<u>1340</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>see COC</u>

Samplers Signature(s): Ken Good

10/10/08

Decrease flow
rusty brown.

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>BW-3</u>	Screen Interval: <u>30-93</u>	Depth to Water: <u>27.0</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-14-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>93</u>	Measured From: <u>TOC Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Y</u>	Well Volume: <u>43 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.04 at 15.2 °C pH: 7.0 = X at _____ °C pH: 10.00 = X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 121

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 15.2 °C

Dissolved Oxygen: Meter 11.1 mg/L at 15.2 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10-14-08 0740

Instrument Model and Serial Number(s): (122X1) 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1500	10	1.4	22.7	-218	7.50	0.45	14.4	-	-	27.01
1503	8	0.6	22.7	-226	7.69	0.45	18.6	30	0.7	48.6
1506	5	0.2	22.8	-239	7.78	0.45	37.6	54	1.25	47.7
1509	5	0.2	23.0	-234	7.75	0.45	23.2	69	1.6	49.4
1512	5	0.3	22.4	-240	7.78	0.44	19.3	84	1.9	57.0
1517	5	0.5	23.0	-209	7.59	0.43	44.4	109	2.5	61.91
1522	5	0.5	23.1	-171	7.71	0.43	70.8	134	3.1	66.80
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>BW-3</u>	<u>10-14-08</u>	<u>1525</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See Col.</u>

Samplers Signature(s): Ken Wal

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>BW-4</u>	Screen Interval: <u>6-20</u>	Depth to Water: <u>17.02</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Fm 6 VRP</u>	Well Diameter: <u>4 2</u>	Date Measured: <u>10-7-08</u>	
Project Number: <u>24098938</u>	Total Well Depth: <u>20</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume <u>0.49 (0.163)</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.96 at 20.8 °C pH: 7.00 = ✓ at °C pH: 10.00 = ✓ at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 100 @ 20.8 °C

Conductivity: Standard 0.449 ~~µmhos/cm~~ at 25 °C Reading 0.45 ~~µmhos/cm~~ at 20.8 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.8 °C PID: Calibration Gas Type ✓ PPM Span Reading

Date / Time of Calibration(s): 10-7-08 | 0750 ORP = 101 mv @ 20.9° - Good

Instrument Model and Serial Number(s): DL 548 8.52 422 XD # 9153008 Horiba

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0757</u>	<u>Bailer</u>	<u>7.5</u>	<u>23.1</u>	<u>264</u>	<u>6.15</u>	<u>0.47</u>	<u>55.5</u>	<u>0.20</u>	<u>0.47</u>	<u>17.02</u>
<u>0802</u>	<u>Bailer</u>	<u>5.1</u>	<u>23.4</u>	<u>223</u>	<u>6.50</u>	<u>0.77</u>	<u>126.0</u>	<u>0.80</u>	<u>1.63</u>	<u>20.68</u>
<u>0746</u>	<u>Bail Dry - Return to Bailer</u>	<u>5.6</u>	<u>24.2</u>	<u>148</u>	<u>6.25</u>	<u>0.46</u>	<u>39.3</u>	<u>0.80</u>		
<u>0745</u>	<u>Bailer</u>	<u>7.9</u>	<u>23.3</u>	<u>56</u>	<u>6.09</u>	<u>0.48</u>	<u>46.3</u>	<u>0.80</u>		<u>17.07</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>0748 B-4</u>	<u>10-9-08</u>	<u>0748</u>	<u>X</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>Hand Bail Sample</u>

Samplers Signature(s): *[Handwritten Signature]*

[Handwritten Signature]

10/9/08
10/10/08

RS
10/9

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MH-14	Screen Interval: 376-501	Depth to Water: 426.03	Page 1 of 1
Project Name: Final VRP	Well Diameter: 6	Date Measured: 10-6-08	
Project Number: 24096935-10014	Total Well Depth: 501	Measured From: TOC Sampling Tube	
Task Code: 10014 10015	Dedicated Pump: Yes	Well Volume: 110.25 GAL	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 8.99 at 26.3 °C pH: 7.00 = at °C pH: 10.00 = at °C
Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: = Reading
Conductivity: 0.44 Standard 0.448 umhos/cm at 25 °C Reading 0.45 umhos/cm at 26.3 °C
Dissolved Oxygen: Meter 8.9 mg/L at 26.3 °C PID: Calibration Gas Type PPM Span Reading
Date / Time of Calibration(s): Turbidity = 0.0 Std = 8.52
Instrument Model and Serial Number(s): model U-22XD # 8153008 10/6/08 1020 hrs

500ml/min. flow cell

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1026	6.6gpm	7.9	25.4	142	6.52	0.31	22.1	—	—	426.03
1030	6.6	6.2	26.0	172	6.86	0.30	70.8	30	0.27	428.0
1034	6.6	4.3	26.9	-478	6.92	0.31	692.0	52.8	0.47	428.17
1040	6.0	2.5	28.4	232	7.0	0.30	301.0	84	0.76	428.03
1045	6.0	2.5	28.7	254	6.97	0.30	221.0	114	1.03	428.82
1050	6.0	2.6	28.7	277	6.96	0.30	117.0	144	1.31	428.81
1100	6.0	2.8	28.6	302	6.93	0.29	96.2	204	1.85	429.75
1110	6.0	3.5	28.6	311	6.95	0.30	120.0	264	2.39	429.37
1120	6.0	3.7	28.6	316	6.95	0.30	86.7	324	2.94	429.13
1130	6.0	3.9	28.6	324	6.95	0.30	89.5	384	3.48	429.20
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-14	10/6/08	1134	*	9	y	y	*	see COC

Samplers Signature(s): *Ken [unclear]*

*
 FILTERED
 2 1/2 gal.
 2, 250 mL
 1 impressed
 NON-FILTER
 2 1/2 gal.
 2, 500 mL
 1, 250 mL
 1 impressed

SAMPLING DATA SHEET

Sierrita VRP

Well ID: MA-15W	Screen Interval: 320-445	Depth to Water: 394.20	Page 1 of 1
Project Name: FMT VRP	Well Diameter: 6	Date Measured: 10-6-08	
Project Number: 24096535	Total Well Depth: 486	Measured From: TOE Sampling Tube	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 108 GAL	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **3.99** at **26.3** °C pH: 7.00 = **✓** at °C pH: 10.00 = **✓** at °C

Turbidity: NTU: 0 = Reading **0.0** NTU: 10 = Reading **✓** NTU: 1 = Reading **✓** Other: NTU: = Reading

Conductivity: Standard **0.449** ~~umhos/cm~~ at 25 °C Reading **0.45** ~~umhos/cm~~ at **26.3** °C

Dissolved Oxygen: Meter **2.1** mg/L at **26.3** °C PID: Calibration Gas Type PPM Span Reading

Date / Time of Calibration(s): **10/6/08 1020 hrs**

Instrument Model and Serial Number(s): **122 x0 # 815 3008 Horiba**

Flow Cell ~ 500 mL/min

WELL PURGING

Time	GPM Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1315	6.7	0.7	25.7	56	7.17	0.33	74.1	-	-	394.00
1320	6.7	2.2	25.6	49	7.25	0.32	132.0	33	0.31	398.36
1330	6.7	3.4	23.8	5	7.37	0.31	747.0	100	0.94	398.05
1340	5.45	3.0	24.3	-38	7.28	0.32	98.9	154	1.45	398.98
1350	5.45	2.6	24.5	54	7.15	0.32	119.2	208	1.96	398.91
1400	5.45	1.3	24.7	76	7.06	0.33	105.0	262	2.47	398.41
1410	5.45	1.2	24.9	98	7.02	0.33	111.0	316	2.98	398.13
1420	5.45	2.8	24.3	15	7.02	0.33	76.2	370	3.49	398.22
1430	5.45	0.6	24.3	66	7.01	0.34	123.4	424	4.00	399.01
1435	5.45	0.3	24.1	54	6.97	0.34	137.0	478	4.50	
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

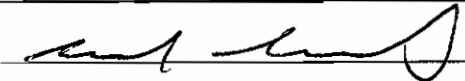
Cleaned Flow Cell of sediment Generator & spurted & stirred it up.

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MA-15W	10-6-08	1435	X	9	X	X	XX	See COC
PZ-20	10-6-08	-	X	9	X	X	XX	DUP=PZ-20

** See MA-15W*

Samplers Signature(s):  (Collected Sample w/o Stabilization - Generator Almost out of gas. Did not want to lose stabilization.)

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-16W</u>	Screen Interval: <u>315-440</u>	Depth to Water: <u>360.03</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Fml Sierrita</u>	Well Diameter: <u>6"</u>	Date Measured: <u>10-8-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>450</u>	Measured From: <u>700 tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>✓</u>	Well Volume <u>132.3 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft. 6" 1.47

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.01 at 21.2 °C pH: 7.00= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 102

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 21.2 °C

Dissolved Oxygen: Meter 9.0 mg/L at 21.2 °C PID: Calibration Gas Type X PPM X Span X Reading X

Date / Time of Calibration(s): 10-8-08 @ 0800

Instrument Model and Serial Number(s): 1122 KD 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0850	15gpm	5.37	24.7	219	7.00	0.12	46.9	-	-	360.03
0853	15	4.9	24.9	230	7.27	0.12	51.0	45	0.34	361.5
0856	15	4.1	25.8	252	7.38	0.11	52.7	90	0.68	361.15
0859	15	4.6	27.2	263	7.39	0.11	122	135	1.0	361.0
0902	15	5.0	28.0	267	7.38	0.11	87.8	180	1.4	360.98
0905	15	5.1	28.4	279	7.37	0.12	60.2	225	1.7	360.98
0908	15	4.8	28.6	287	7.38	0.12	56.9	270	2.0	361.0
0911	15	5.2	28.7	294	7.37	0.12	55.1	315	2.4	360.98
0914	15	5.4	28.6	298	7.37	0.11	59.4	360	2.7	361.01
0917	15	5.5	28.4	301	7.34	0.11	110.0	405	3.1	361.0
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

Sample time *

0920 5.5 28.6 305 0.11 95.1 450 3.4 361.0

SAMPLING INFORMATION

Sampling Method: X Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailor _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-16W</u>	<u>10-8-08</u>	<u>0920</u>	<u>*</u>	<u>*4</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>see COC</u>
<u>* Sampled again because the well volume was not achieved. for the 10/7/08 sample (3x well volume)</u>								

Samplers Signature(s): Ken Wal

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-16W</u>	Screen Interval: <u>315-440</u>	Depth to Water: <u>359.99</u>	Page <u>1</u> of <u> </u>
Project Name: <u>FWI Sierrita</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-7-08</u>	
Project Number: <u>24096038</u>	Total Well Depth: <u>450</u>	Measured From: <u>TOC Sampling tube</u>	
Task Code: <u>1005</u>	Dedicated Pump: <u>Y</u>	Well Volume <u>58.5 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 20.8 °C pH: 7.0= ✓ at °C pH: 10.00= ✓ at °C
Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 100
Conductivity: Standard 0.449 ^{µS}/cm at 25 °C Reading 0.45 umhos/cm at 20.8 °C
Dissolved Oxygen: Meter 9.3 mg/L at 20.8 °C PID: Calibration Gas Type ✓ PPM Span Reading
Date / Time of Calibration(s): 10/7/08 0750
Instrument Model and Serial Number(s): Hanna H22 KD 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1415</u>	<u>156gpm</u>	<u>9.9</u>	<u>25.9</u>	<u>12</u>	<u>7.09</u>	<u>0.12</u>	<u>65.0</u>	<u> </u>	<u> </u>	<u>359.99</u>
<u>1418</u>	<u>156gpm</u>	<u>7.5</u>	<u>26.2</u>	<u>17</u>	<u>7.46</u>	<u>0.12</u>	<u>69.3</u>	<u>45</u>	<u>0.76</u>	<u>361.21</u>
<u>1421</u>	<u>156gpm</u>	<u>6.4</u>	<u>27.9</u>	<u>122</u>	<u>7.16</u>	<u>0.12</u>	<u>684.0</u>	<u>90</u>	<u>1.5</u>	<u>361.03</u>
<u>1424</u>	<u>11</u>	<u>2.8</u>	<u>27.9</u>	<u>169</u>	<u>7.20</u>	<u>0.11</u>	<u>509.0</u>	<u>9135 gal</u>	<u>21.9</u>	<u>360.83</u>
<u>1427</u>	<u>11</u>	<u>2.6</u>	<u>28.6</u>	<u>183</u>	<u>7.40</u>	<u>0.11</u>	<u>167.0</u>	<u>132</u>	<u>2.2</u>	<u>360.76</u>
<u>1430</u>	<u>11</u>	<u>2.7</u>	<u>29.2</u>	<u>202</u>	<u>7.38</u>	<u>0.11</u>	<u>192.0</u>	<u>165</u>	<u>2.8</u>	<u>360.76</u>
<u>1433</u>	<u>11</u>	<u>3.4</u>	<u>29.2</u>	<u>234</u>	<u>7.39</u>	<u>0.11</u>	<u>118</u>	<u>198</u>	<u>3.4</u>	<u>360.78</u>
<u>1436</u>	<u>11</u>	<u>3.5</u>	<u>29.2</u>	<u>256</u>	<u>7.38</u>	<u>0.11</u>	<u>101.0</u>	<u>231</u>	<u>3.9</u>	<u>360.75</u>
<u>1439</u>	<u>11</u>	<u>3.4</u>	<u>29.5</u>	<u>267</u>	<u>7.36</u>	<u>0.11</u>	<u>84.3</u>	<u>264</u>	<u>4.5</u>	<u>360.75</u>
<u>1444</u>	<u>KW</u>									
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-16W</u>	<u>10/7/08</u>	<u>1445</u>	<u>*</u>	<u>*9</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>* see COC</u>

Samplers Signature(s): Ken Lee

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-17</u>	Screen Interval: <u>58-108</u>	Depth to Water: <u>54.0</u>	Page <u>1</u> of <u> </u>
Project Name: <u>EMU SIGHTS</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>10-13-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>109.6</u>	Measured From: <u>TOC tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Y</u>	Well Volume <u>36.1</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.12 at 12.8 °C pH: 7.0= X at °C pH: 10.00= X at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 100 = Reading 100

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.48 umhos/cm at 12.8 °C

Dissolved Oxygen: Meter 11.7 mg/L at 13.0 °C PID: Calibration Gas Type Y PPM Span Reading

Date / Time of Calibration(s): 10/13/08 @ 0730

Instrument Model and Serial Number(s): U22XD SN 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1243</u>	<u>8 gpm</u>	<u>6.3</u>	<u>25.3</u>	<u>49</u>	<u>7.04</u>	<u>0.16</u>	<u>24.0</u>	<u> </u>	<u> </u>	<u>54.0</u>
<u>1246</u>	<u>8 gpm</u>	<u>1.9</u>	<u>22.9</u>	<u>37</u>	<u>6.76</u>	<u>0.16</u>	<u>22.1</u>	<u>24</u>	<u>0.66</u>	<u>70.2</u>
<u>1249</u>	<u>8 gpm</u>	<u>0.6</u>	<u>22.9</u>	<u>50</u>	<u>6.70</u>	<u>0.16</u>	<u>21.8</u>	<u>48</u>	<u>1.3</u>	<u>82.4</u>
<u>1252</u>	<u>8</u>	<u>2.0</u>	<u>22.7</u>	<u>44</u>	<u>6.83</u>	<u>0.16</u>	<u>20.5</u>	<u>72</u>	<u>1.9</u>	<u>96.5</u>
<u>1255</u>	<u>8</u>	<u>1.9</u>	<u>22.5</u>	<u>26</u>	<u>6.94</u>	<u>0.10</u>	<u>41.0</u>	<u>96</u>	<u>2.6</u>	<u>109.6</u>
<u>1004</u>	<u>5 gpm</u>	<u>8.7</u>	<u>23.2</u>	<u>13</u>	<u>6.74</u>	<u>0.16</u>	<u>12.5</u>	<u> </u>	<u> </u>	<u>56.40</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

Pump
dry

10/16/08

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-17</u>	<u>10/16/08</u>	<u>1004</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See CDC</u>

Samplers Signature(s): _____

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-18</u>	Screen Interval: <u>60-178</u>	Depth to Water: <u>64.96</u>	Page <u>1</u> of <u> </u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4"</u>	Date Measured: <u>10-13-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>179</u>	Measured From: <u>TOC sonding tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>✓</u>	Well Volume: <u>74 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00=4.12 at 12.8 °C pH: 7.0=✓ at °C pH: 10.00=✓ at °C
 Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 100 = Reading 100
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.48 umhos/cm at 12.8 °C
 Dissolved Oxygen: Meter 11.7 mg/L at 17.0 °C PID: Calibration Gas Type ✓ PPM Span Reading
 Date / Time of Calibration(s): 10/13/08 @ 0730
 Instrument Model and Serial Number(s): 622X0 SN 8163008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1143</u>	<u>8 gpm</u>	<u>10.0</u>	<u>23.1</u>	<u>-55</u>	<u>7.28</u>	<u>0.12</u>	<u>30.3</u>	<u>-</u>	<u>-</u>	<u>64.96</u>
<u>1146</u>	<u>8 gpm</u>	<u>9.3</u>	<u>23.4</u>	<u>-76</u>	<u>7.15</u>	<u>0.16</u>	<u>39.3</u>	<u>24</u>	<u>0.3</u>	<u>80.0</u>
<u>1149</u>	<u>8 gpm</u>	<u>9.0</u>	<u>23.4</u>	<u>-27</u>	<u>7.13</u>	<u>0.17</u>	<u>25.6</u>	<u>48</u>	<u>0.65</u>	<u>94.1</u>
<u>1152</u>	<u>8 gpm</u>	<u>8.8</u>	<u>23.4</u>	<u>-8</u>	<u>7.12</u>	<u>0.18</u>	<u>25.2</u>	<u>72</u>	<u>0.97</u>	<u>104.8</u>
<u>1157</u>	<u>8</u>	<u>8.5</u>	<u>23.5</u>	<u>-30</u>	<u>7.13</u>	<u>0.18</u>	<u>26.8</u>	<u>112</u>	<u>1.5</u>	<u>124.2</u>
<u>1202</u>	<u>8</u>	<u>8.1</u>	<u>23.6</u>	<u>-27</u>	<u>7.11</u>	<u>0.18</u>	<u>28.5</u>	<u>152</u>	<u>2.0</u>	<u>143.7</u>
<u>1207</u>	<u>8</u>				<u>7.05</u>			<u>192</u>	<u>2.6</u>	
<u>12 Kw</u>										
<u>1430</u>	<u>8</u>	<u>6.33</u>	<u>25.3</u>	<u>140</u>	<u>7.27</u>	<u>0.18</u>	<u>35.3</u>	<u>-</u>	<u>-</u>	<u>63.90</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

not able to get Turbidity parameters at 1207 10/15/08

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Baller Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-18</u>	<u>10-15-08</u>	<u>1430</u>	<u>✓</u>	<u>*</u>	<u>✓</u>	<u>✓</u>	<u>*</u>	<u>See CDC</u>

Samplers Signature(s): _____

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-19</u>	Screen Interval: <u>40-70</u>	Depth to Water: <u>5.77</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>EMI VRP</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>10-15-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>72.8</u>	Measured From: <u>TOC tube</u>	
Task Code: <u>90015</u>	Dedicated Pump: <u>Y</u>	Well Volume: <u>44 gal.</u>	

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00= 3.99 at 16.2 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C
 Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 99.5
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 16.2 °C
 Dissolved Oxygen: Meter 8.25 mg/L at 16.2 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 10-15-08 0720
 Instrument Model and Serial Number(s): (U22X1) 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1334</u>	<u>10</u>	<u>8.81</u>	<u>26.9</u>	<u>10</u>	<u>6.94</u>	<u>0.23</u>	<u>-5.0</u>	<u>—</u>	<u>—</u>	<u>5.77</u>
<u>1337</u>	<u>10</u>	<u>6.35</u>	<u>23.9</u>	<u>47</u>	<u>6.86</u>	<u>0.22</u>	<u>-5.0</u>	<u>50</u>	<u>1.13</u>	<u>7.67</u>
<u>1344</u>	<u>10</u>	<u>4.26</u>	<u>23.8</u>	<u>71</u>	<u>6.99</u>	<u>0.21</u>	<u>-5.0</u>	<u>100</u>	<u>2.3</u>	<u>8.06</u>
<u>1349</u>	<u>10</u>	<u>2.84</u>	<u>23.7</u>	<u>81</u>	<u>7.01</u>	<u>0.21</u>	<u>-5.0</u>	<u>150</u>	<u>3.4</u>	<u>8.32</u>
<u>1354</u>	<u>10</u>	<u>1.81</u>	<u>23.8</u>	<u>88</u>	<u>6.99</u>	<u>0.21</u>	<u>-5.0</u>	<u>200</u>	<u>4.5</u>	<u>8.48</u>
<u>1357</u>	<u>10</u>	<u>1.40</u>	<u>23.8</u>	<u>92</u>	<u>7.06</u>	<u>0.21</u>	<u>-5.0</u>	<u>230</u>	<u>5.2</u>	<u>8.69</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-19</u>	<u>10/15/08</u>	<u>1357</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>Y</u>	<u>*</u>	<u>See COC *</u>

Samplers Signature(s): Kee Walker

SAMPLING SHEET

Sierrita VRP

Well ID: <u>MH-20</u>	Screen Interval: <u>120-176</u>	Depth to Water: <u>13.22</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Env Sierra</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>10-15-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>176</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n</u>	Well Volume <u>105 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 3.99 at 16.2 °C pH: 7.0 = X at _____ °C pH: 10.00 = X at _____ °C
 Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 99.5
 Conductivity: Standard 0.999 umhos/cm at 25 °C Reading 0.45 umhos/cm at 16.2 °C
 Dissolved Oxygen: Meter 835 mg/L at 16.2 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 10-15-08 @ 0715 ORP: 65 * no calibration
 Instrument Model and Serial Number(s): H22XD SN 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0907	300 <u>ml/min</u>	2.04	23.1	67	6.83	0.17	12.5	-	-	13.22
0910	↓	0.0	23.2	46	7.33	0.17	11.2	-	-	13.22
0913		0.0	23.1	18	7.65	0.17	10.5	-	-	13.59
0916		0.0	23.2	15	7.69	0.17	10.4	-	-	13.74
0920		0.0	23.3	17	7.72	0.17	10.4	-	-	13.89
0925		0.0	23.3	20	7.72	0.17	10.5	-	-	13.92
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer X Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-20</u>	<u>10-15-08</u>	<u>925</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See COC</u>

Samplers Signature(s): Ken Wall

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-21</u>	Screen Interval: <u>28-79</u>	Depth to Water: <u>30.08</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Full Stillite</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-13-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>80</u>	Measured From: <u>TOC tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Y</u>	Well Volume <u>32.4 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.12 at 12.8 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading _____ NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 100

Conductivity: Standard 0.444 umhos/cm at 25 °C Reading 0.48 umhos/cm at 12.8 °C

Dissolved Oxygen: Meter 11.7 mg/L at 12.0 °C PID: Calibration Gas Type 7 PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/13/08 0730 ORP: 75 @ 12.8 *

Instrument Model and Serial Number(s): 1122X1 SN 8153008

WELL PURGING

purge dry

10/16/08

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1010</u>	<u>9 GPM</u>	<u>8.9</u>	<u>22.8</u>	<u>-108</u>	<u>7.85</u>	<u>0.34</u>	<u>25.4</u>	<u>-</u>	<u>-</u>	<u>30.08</u>
<u>1013</u>	<u>9 GPM</u>	<u>7.5</u>	<u>22.8</u>	<u>-119</u>	<u>6.92</u>	<u>0.33</u>	<u>69.1</u>	<u>27</u>	<u>0.8</u>	<u>48.7</u>
<u>1016</u>	<u>9 GPM</u>	<u>6.5</u>	<u>22.8</u>	<u>-123</u>	<u>6.92</u>	<u>0.33</u>	<u>50.3</u>	<u>54</u>	<u>1.6</u>	<u>63.6</u>
<u>1018</u>	<u>9 GPM</u>	<u>2.6</u>	<u>22.9</u>	<u>-125</u>	<u>6.91</u>	<u>0.34</u>	<u>52.7</u>	<u>81</u>	<u>2.5</u>	<u>80.0</u>
								<u>108</u>	<u>3.3</u>	<u>FW</u>
<u>0827</u>	<u>5.6 GPM</u>	<u>2.68</u>	<u>23.1</u>	<u>-17</u>	<u>6.66</u>	<u>0.33</u>	<u>24.2</u>	<u>-</u>	<u>-</u>	<u>30.33</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

*10/16/08
Sampled.*

Sampling Method: Dedicated Pump Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-21</u>	<u>10/16/08</u>	<u>0827</u>	<u>*</u>	<u>2</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See COC</u>

Samplers Signature(s): Mark Sallman 10/16/08

SAMPLING SHEET

Sierrita VRP

Well ID: <u>MH-22</u>	Screen Interval: <u>6.5-16.5</u>	Depth to Water: <u>14.01</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4"</u>	Date Measured: <u>10-10-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>18.1</u>	Measured From: <u>TOC tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Y</u>	Well Volume <u>2.6 gal</u> 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.	

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.96 at 20.3 °C pH: 7.0 = X at _____ °C pH: 10.00 = X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 95.2

Conductivity: Standard 0.449 ³¹ umhos/cm at 25 °C Reading 0.41 ³ umhos/cm at 20.3 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.3 °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): 10/10/08 0730 ORP1 95 mV

Instrument Model and Serial Number(s): Hanna U22XD # 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0830	7gpm	5.9	24.5	-9	6.77	0.55	870	-	-	14.01
0833	7gpm	7.6	24.1	10	6.64	0.55	431.0	42	-	
0835	7gpm	7.0	24.1	32	6.61	0.54	83.0	42		15.45
0838	7gpm	6.7	24.2	44	6.60	0.54	27.5	63		15.37
0841	7gpm	6.6	24.2	46	6.60	0.54	26.0	84		
0844	7gpm	6.4	24.2	50	6.61	0.54	17.6	105		15.58
0847	7gpm	5.9	24.2	51	6.61	0.54	25.8	126		
0850	7gpm	5.7	24.2	53	6.60	0.55	19.4	147		15.57
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

cloudy
clear

WL meter
resting
on top
of pump

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Baller Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-22</u>	<u>10-10-08</u>	<u>0850</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>see COC</u>

Samplers Signature(s): Ku Wal

SAMPLING SHEET

Sierrita VRP

Well ID: <u>MH-23</u>	Screen interval: <u>20-80</u>	Depth to Water: <u>18.53</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FWI Sierrita</u>	Well Diameter: <u>4"</u>	Date Measured: <u>10-10-08</u>	
Project Number: <u>2496730</u>	Total Well Depth: <u>80.12</u>	Measured From: <u>TOC tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>✓</u>	Well Volume <u>40.0 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.96 at 20.3 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 95.2

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.41 umhos/cm at 20.3 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.3 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/10/08 0730 ORP-75

Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0932</u>	<u>4 gpm</u>	<u>9.6</u>	<u>23.7</u>	<u>-52</u>	<u>6.99</u>	<u>0.46</u>	<u>23.5</u>	<u>—</u>	<u>—</u>	<u>18.53</u>
<u>0935</u>	<u>9</u>	<u>6.6</u>	<u>23.4</u>	<u>-53</u>	<u>6.80</u>	<u>0.46</u>	<u>24.7</u>	<u>27</u>	<u>0.67</u>	<u>39.59</u>
<u>0938</u>	<u>9</u>	<u>4.1</u>	<u>23.5</u>	<u>-74</u>	<u>6.78</u>	<u>0.46</u>	<u>212.0</u>	<u>54</u>	<u>1.4</u>	<u>54.46</u>
<u>0941</u>	<u>9</u>	<u>3.3</u>	<u>23.7</u>	<u>-106</u>	<u>6.82</u>	<u>0.46</u>	<u>37.1</u>	<u>81</u>	<u>2.0</u>	<u>80.0</u>
0944										
<u>0835</u>	<u>9</u>	<u>8.2</u>	<u>22.7</u>	<u>-12</u>	<u>6.92</u>	<u>0.40</u>	<u>78.2</u>	<u>—</u>	<u>—</u>	<u>18.84</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-23</u>	<u>10/13/08</u>	<u>0835</u>	<u>*</u>	<u>*9</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See COC</u>

Samplers Signature(s): Kerr Wul

Purge dry @ 0942

10/13/08

SAMPLING SHEET

Sierrita VRP

Well ID: <u>MH-27</u>	Screen Interval: <u>20-30</u>	Depth to Water: <u>6.23</u>	Page <u>1</u> of <u> </u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4"</u>	Date Measured: <u>10-10-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>80.0</u>	Measured From: <u>7oc tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>1</u>	Well Volume <u>48 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 396 at 20.3 °C pH: 7.0= X at °C pH: 10.00= X at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 95.2

Conductivity: Standard 0.5499 umhos/cm at 25 °C Reading 0.41 umhos/cm at 20.3 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.3 °C PID: Calibration Gas Type PPM Span Reading

Date / Time of Calibration(s): 10/10/08 0730 ORP-75

Instrument Model and Serial Number(s): Horiba 422 KD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1127</u>	<u>9.5</u>	<u>5.9</u>	<u>24.0</u>	<u>-71</u>	<u>7.28</u>	<u>0.54</u>	<u>35.7</u>	<u> </u>	<u> </u>	<u>6.23</u>
<u>1130</u>	<u>9.5</u>	<u>4.8</u>	<u>23.6</u>	<u>-83</u>	<u>7.09</u>	<u>0.53</u>	<u>13.1</u>	<u>28.5</u>	<u>0.6</u>	<u>22.54</u>
<u>1133</u>	<u>9.5</u>	<u>4.8</u>	<u>20.8</u>	<u>-91</u>	<u>7.05</u>	<u>0.53</u>	<u>14.6</u>	<u>57</u>	<u>1.18</u>	<u>37.52</u>
<u>1136</u>	<u>9.5</u>	<u>9.3</u>	<u>23.5</u>	<u>-104</u>	<u>7.01</u>	<u>0.53</u>	<u>5.4</u>	<u>85.5</u>	<u>1.78</u>	<u>49.89</u>
<u>1139</u>	<u>9.5</u>	<u>7.4</u>	<u>23.7</u>	<u>-98</u>	<u>6.98</u>	<u>0.52</u>	<u>4.0</u>	<u>114</u>	<u>2.4</u>	<u>63.32</u>
<u>1142</u>	<u>9.5</u>	<u>7.1</u>	<u>24.0</u>	<u>-127</u>	<u>7.01</u>	<u>0.51</u>	<u>17.6</u>	<u>192.5</u>	<u>2.9</u>	<u>77.27</u>
<u>1320</u>	<u>9.5</u>	<u>9.7</u>	<u>23.7</u>	<u>-100</u>	<u>7.36</u>	<u>0.47</u>	<u>181.0</u>	<u> </u>	<u> </u>	<u>76.43</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

well purged
dry

10/13/08

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Baller Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-27</u>	<u>10/13/08</u>	<u>1055</u>	<u>*</u>	<u>* 9</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>see COC</u>

Samplers Signature(s): Ken Wal

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-28</u>	Screen Interval: <u>355-485</u>	Depth to Water: <u>402.17</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Pms VRP</u>	Well Diameter: <u>4"</u>	Date Measured: <u>10-6-08</u>	
Project Number: <u>24096835</u>	Total Well Depth: <u>492</u>	Measured From: <u>TOC</u>	
Task Code: <u>1027 + 10015</u>	Dedicated Pump: <u>4</u>	Well Volume <u>1 vol = 47 gal.</u> 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.	

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 26.3 °C pH: 7.0= / at / °C pH: 10.00= / at / °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading / NTU: 1 = Reading / Other: NTU: / = Reading /

Conductivity: Standard 0.949 umhos/cm at 25 °C Reading 0.45 umhos/cm at 26.3 °C

Dissolved Oxygen: Meter 8.9 mg/L at 26.3 °C PID: Calibration Gas Type / PPM / Span / Reading /

Date / Time of Calibration(s): Turb = 0.0 Std 8.52

Instrument Model and Serial Number(s): 1122 X0 # 8153008 10/6/08 1020 hrs

500 ml/min **WELL PURGING**

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1214	20 gpm	12.4	25.4	171	7.59	0.37	50.2	-	-	402.17
1222	20	7.5	26.2	178	7.21	0.36	5.0	60	0.15	426.71
1225	20	6.4	26.5	228	6.97	0.36	5.0	120	2.5	426.78
1228	20	6.2	26.5	251	6.97	0.36	5.0	180	3.8	426.78
1231	20	6.2	26.7	266	6.95	0.35	481.0	240	5.1	426.63
1234	20	6.2	26.6	277	6.98	0.35	302.0	300	6.4	426.72
1237	20	6.2	26.7	282	6.98	0.35	220.0	360	7.6	426.70
1240	20	6.1	26.7	286	6.98	0.35	163.0	420	8.9	426.45
1243	20	6.1	26.7	289	6.97	0.35	170.0	480	10.2	426.60
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

cloudy
to
ERROR

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-28</u>	<u>10-6-08</u>	<u>1245</u>	<u>*</u>	<u>9</u>	<u>4 *</u>	<u>*</u>	<u>**</u>	<u>see COC</u>

* Sap
MH-14

Samplers Signature(s): Kalish

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-29</u>	Screen Interval: <u>340-470</u>	Depth to Water: <u>381.52</u>	Page <u>1</u> of <u> </u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-7-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>480</u>	Measured From: <u>top of Sounding Tube</u>	
Task Code: <u>10014</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>64</u> 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.	

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= ~~3.99~~ at 20.8 °C pH: 7.0= at °C pH: 10.00= at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 100 = Reading 100

Conductivity: Standard 0.449 $\mu\text{mhos/cm}$ at 25 °C Reading 0.45 $\mu\text{mhos/cm}$ at 20.8 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.8 °C PID: Calibration Gas Type PPM Span Reading

Date / Time of Calibration(s): 10/7/08 0750 hrs

Instrument Model and Serial Number(s): Horiba u22 XD 8153008

Flow cell - 400 mL/min

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond ($\mu\text{S/cm}$)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1256	79.5	-	-	-	-	-	-	-	-	381.52
1300	9.5	3.7	25.8	158	7.42	0.34	373	38	0.59	382.22
1305	9.5	1.3	25.9	154	7.15	0.34	332	85.5	1.33	382.20
1310	8.0	2.2	26.1	167	7.05	0.34	77.3	125	1.95	382.20
1315	8.0	2.4	26.3	175	7.02	0.34	60.9	165	2.57	381.60
1320	8.0	6.4	26.5	137	7.02	0.34	47.4	197	3.0	382.21
1325	8.0	5.8	26.7	180	7.0	0.34	78.6	237	3.7	382.26
1330	8.0	4.3	26.4	183	6.97	0.33	88.1	277	4.3	382.20
1335	8.0	4.4	26.9	182	6.97	0.33	77.8	317	4.9	382.20
1340	8.0	4.3	26.8	184	6.95	0.33	79.7	357	5.57	382.15
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

started @
20 gpm.
turned back.

Groundwater
pump specifications
stop purging
w/ 1 min

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-29</u>	<u>10-7-08</u>	<u>134</u>	<u>*</u>	<u>9</u>	<u>*</u>	<u>*</u>	<u>see CBC</u>	<u>* See Log Book</u>

Samplers Signature(s): _____

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>MH-30</u>	Screen Interval: <u>470-530</u>	Depth to Water: <u>417.11 ft. bgs</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FM Sierrita</u>	Well Diameter: <u>5"</u>	Date Measured: <u>10/6/08</u>	
Project Number: <u>24046838.10014</u>	Total Well Depth: <u>530</u>	Measured From: <u>TOC</u>	
Task Code: <u>10014 10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>117.3 GAL Casing Vol</u> 3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.	

Jeff
6440

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 20.9 °C pH: 7.0= NA at _____ °C pH: 10.00= NA at _____ °C

Turbidity: NTU: 0 = Reading 0 NTU: 10 = Reading NA NTU: 1 = Reading NA Other: NTU: 100 = Reading 94

Conductivity: Standard 0.48 0.49 mS/cm at 25 °C Reading 0.48 mS/cm at 20.7 °C

Dissolved Oxygen (8.5%) Meter 8.7 mg/L at 20.6 °C PID: Calibration Gas Type _____ PPM Span _____ Reading _____

Date / Time of Calibration(s): 10/6/08 @ 0800 ORP 97 mV @ 23°C ORP: 371 mV KW

Instrument Model and Serial Number(s): 11-22 X0 8153008 10/6/08 1020 h15

WELL PURGING

Flow Cell ~ 100 mL/min

Time	Discharge Rate 60 min	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0908	20	6.9	26.3	-381	6.73	0.37	58.9	-	-	417.11
0910	15	0.3	28.6	-527	7.33	0.37	69.5	40		
0915	15	3.3	29.7	138	6.88	0.38	36.2	130	0.31	452.86
0920	15	3.2	29.3	287	6.96	0.38	64.8	220	1.88	462.76
0925	15	3.2	29.5	298	6.94	0.38	69.2	310	2.64	467.97
0930	12	3.2	29.9	311	6.92	0.38	54.5	370	3.16	472.98
0935	12	3.2	29.8	319	6.93	0.39	45.8	430	3.67	479.98
0940	12	3.2	29.9	324	6.94	0.39	43.5	490	4.18	481.28
0943	12	3.3	27.8	323	6.95	0.38	45.9	526	4.49	482.29
0945	12	3.3	29.8	326	6.95	0.39	42.1	550	4.70	481.3
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

90 gal/min
60 gal/min

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-30	10/6/08	0945	*	109	Yes *	Yes *	*	see COC

Samplers Signature(s): [Signature]

Filtered =
2 1/2 Gal
2, 250 mL
unpreserved
NON Filtered
2 1/2 Gal
2, 500 mL
1, 250 mL
unpreserved

SAMPLING SHEET

Sierrita VRP

Well ID: <u>P2-1</u>	Screen Interval: <u>140-190</u>	Depth to Water: 144.74 <u>142.95</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>11/4/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>190</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n</u>	Well Volume <u>90 gal. ~30 gal</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.00 at 21.95 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 99.3

Conductivity: Standard 0.95 umhos/cm at 25 °C Reading 0.95 umhos/cm at 21.95 °C

Dissolved Oxygen: Meter 8.73 mg/L at 21.95 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 11/4/08 @ 0940 ORP: (89mV) - 85 mV

Instrument Model and Serial Number(s): Horiba U22XD SN 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1000	<u>1 gpm</u>	<u>9.37</u>	<u>20.01</u>	<u>111</u>	<u>7.48</u>	<u>0.25</u>	<u>16.8</u>	—	—	<u>142.95</u>
<u>1011</u>	<u>0.75</u>	<u>10.96</u>	<u>19.06</u>	<u>117</u>	<u>7.39</u>	<u>0.25</u>	<u>16.1</u>			<u>144.52</u>
<u>1015</u>	<u>0.5</u>	<u>8.93</u>	<u>20.09</u>	<u>115</u>	<u>7.50</u>	<u>0.25</u>	<u>16.3</u>			<u>144.70</u>
<u>1019</u>	<u>1.0 gpm</u>	<u>not taken</u>	<u>taken</u>	<u>7.22</u>	<u>0.24</u>	<u>not taken</u>				<u>146.0</u>
<u>1029</u>	<u>1.0 gpm</u>	<u>8.93</u>	<u>23.88</u>	<u>127</u>	<u>7.55</u>	<u>49 mS/cm</u>	<u>426</u>	<u>22</u>	<u>0.66</u>	<u>150.0</u>
<u>1039</u>	<u>1.5 gpm</u>	<u>9.01</u>	<u>24.08</u>	<u>131</u>	<u>7.55</u>	<u>48 mS/cm</u>	<u>397</u>	<u>37</u>	<u>1.2</u>	<u>155.5</u>
<u>1049</u>	<u>1.5</u>	<u>8.98</u>	<u>23.97</u>	<u>142</u>	<u>7.56</u>	<u>48 mS/cm</u>	<u>289</u>	<u>47</u>	<u>1.7</u>	<u>160.19</u>
<u>1059</u>	<u>1.5</u>	<u>8.80</u>	<u>24.16</u>	<u>146</u>	<u>7.44</u>	<u>48 mS/cm</u>	<u>300.0</u>	<u>67</u>	<u>2.2</u>	<u>163.44</u>
<u>1109</u>	<u>1.5</u>	<u>8.90</u>	<u>24.08</u>	<u>153</u>	<u>7.59</u>	<u>48 mS/cm</u>	<u>254</u>	<u>82</u>	<u>2.9</u>	<u>166.72</u>
<u>1119</u>	<u>1.5</u>	<u>9.05</u>	<u>23.98</u>	<u>157</u>	<u>7.45</u>	<u>48 mS/cm</u>	<u>220</u>	<u>97</u>	<u>3.0+</u>	<u>169.95</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

* most likely nose water

SAMPLE PARAMETER

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump Non-Dedicated Pump _____ Hand Bailor _____ Low Flow/Micropurge Bennett Pump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>P2-1</u>	<u>11/4/08</u>	<u>1121</u>	<u>See COC</u>					<u>See COC</u>

Samplers Signature(s): Ken Wald

SAMPLING DATA SHEET

Sierrita VRP

Well ID: P2-02	Screen Interval: 49-108.32	Depth to Water: 45.06	Page 1 of 1
Project Name: FMI VRP	Well Diameter: 4	Date Measured: 10-7-08	
Project Number: 24096838	Total Well Depth: 108.32	Measured From: Top of Sampling Tube	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 40.91 (0.65)	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **3.96** at **20.8** °C pH: 7.0 = at _____ °C pH: 10.00 = at _____ °C
Turbidity: NTU: 0 = Reading **0.0** NTU: 10 = Reading NTU: 1 = Reading Other: NTU: **100** = Reading **100 @ 108.0**
Conductivity: Standard **0.449** ~~µmhos/cm~~ at 25 °C Reading **0.45** ~~µmhos/cm~~ at _____ °C
Dissolved Oxygen: Meter **9.3** mg/L at **20.8** °C PID: Calibration Gas Type PPM _____ Span _____ Reading _____
Date / Time of Calibration(s): **10-7-08 0750** ~~0750~~ **101 mV @ 20.9 °**
Instrument Model and Serial Number(s): **122 XD # 8153008 Horiba**

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond $\mu\text{S/cm}$	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0845	15 gpm	2.4	26.0	294	6.39	0.71	395.0	-	-	45.06
0848	15	7.3	23.9	121	6.25	0.74	83.6	45	1.	
0851	15	6.1	23.9	36	6.23	0.75	45.5	90	2.	91.92
0853	15	5.1	24.0	38	6.26	0.77	57.3	120	3.	107.16
1050	15	4.0	25.4	98	6.45	0.81	25.0	-	-	46.01
7045 KW										
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

* purged dry *

10/10/08

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
P2-2	10/10/08	1050	*	*	*	*	*	See COC

Samplers Signature(s): *K. A. ...*

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>P2-3</u>	Screen Interval: <u>20-80</u>	Depth to Water: <u>31.10</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>F.M. Sierrita</u>	Well Diameter: <u>4"</u>	Date Measured: <u>10-7-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>81.22</u>	Measured From: <u>70C</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>y</u>	Well Volume <u>32.4</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 20.8 °C pH: 7.0= ✓ at °C pH: 10.00= ✓ at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 100

Conductivity: Standard 0.449 ~~µmhos/cm~~ at 25 °C Reading 0.45 ~~µmhos/cm~~ at 20.8 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.8 °C PID: Calibration Gas Type ✓ PPM Span Reading

Date / Time of Calibration(s): 10/7/08 0750 101 mV @ 20.9 °C

Instrument Model and Serial Number(s): U22 XD 8153008 Horiba

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0927	10 AM	3.6	23.5	118	6.78	0.49	39.2	-	-	31.10
0930	10	6.5	23.4	65	6.80	0.49	36.7	20	0.61	-
0932	10	6.2	23.4	17	6.72	0.49	37.2	60	1.85	60.0
0934	10	6.0	23.5	39	6.70	0.49	49.5	80	2.46	72.0
1445	10	11.9	24.7	195	6.96	0.551	70.8	-	-	32.12
Purge Dry - Return to Sample 14m after Day										
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)										

10-8-08

SAMPLING INFORMATION

Sampling Method: ✓ Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>P2-3</u>	<u>10-8-08</u>	<u>1445</u>	<u>*</u>	<u>9*</u>				

Samplers Signature(s): Ken [Signature]

SAMPLING SHEET

Sierrita VRP

Well ID: <u>P2-4</u>	Screen Interval: <u>20-70</u>	Depth to Water: <u>16.78</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Fm Sierrita</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-10-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>70</u>	Measured From: <u>70C</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Y</u>	Well Volume: <u>35 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.96 at 20.3 °C pH: 7.0 = X at _____ °C pH: 10.00 = X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 95.2

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.41 umhos/cm at 20.3 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.3 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/10/08 0730 ORP = 75

Instrument Model and Serial Number(s): Hovig U22X0 8153008

WELL PURGING

1424 }
1421 }
Broke suction 1424 }
1425 }
1427'kw }
1425 }

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1424'kw	23	10.7	23.4	-54	7.07	0.72	81.2	-	-	16.78
1424'kw	23	9.2	22.8	-77	6.98	0.67	57.8	69	1.4	44.49
1425'kw	23	7.9	23.0	-95	6.98	0.64	104	128	3.9	70.0
		8			6.06	0.62	222	92	2.6	
<u>0750</u>	<u>23</u>	<u>8.6</u>	<u>20.9</u>	<u>6</u>	<u>6.06</u>	<u>0.62</u>	<u>222</u>	<u>-</u>	<u>-</u>	<u>16.75</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

duplicate

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>P2-4</u>	<u>10/13/08</u>	<u>0750</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>SEE COC</u>
<u>P2-21</u>	<u>10/13/08</u>	<u>0750</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>↓</u>

Samplers Signature(s): Ken Wald

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>PZ-05</u>	Screen Interval: <u>19-69</u>	Depth to Water: <u>22.28</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-7-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>69.5</u>	Measured From: <u>Top of sounding tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>30.69</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 20.8 °C pH: 7.0= ✓ at °C pH: 10.00= ✓ at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 100 @ 20.8

Conductivity: Standard 0.449 ~~umhos~~/cm at 25 °C Reading 0.45 ~~umhos~~/cm at 20.8 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.8 °C PID: Calibration Gas Type ✓ PPM Span Reading

Date / Time of Calibration(s): 10/7/08 0750

Instrument Model and Serial Number(s): U22 XD 8157008 Horiba

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1005</u>	<u>9gpm</u>	<u>7.7</u>	<u>24.1</u>	<u>64</u>	<u>6.86</u>	<u>0.87</u>	<u>114.0</u>	<u> </u>	<u> </u>	<u>22.28</u>
<u>1008</u>	<u>9gpm</u>	<u>7.0</u>	<u>23.8</u>	<u>-77</u>	<u>6.78</u>	<u>0.86</u>	<u>88.6</u>	<u>27</u>	<u>0.87</u>	<u>43.0</u>
<u>1011</u>	<u>9gpm</u>	<u>6.5</u>	<u>24.0</u>	<u>-104</u>	<u>6.76</u>	<u>0.86</u>	<u>94.0</u>	<u>54</u>	<u>1.76</u>	<u>58.0</u>
<u>1012</u>	<u>9gpm</u>	<u>6.3</u>	<u>24.0</u>	<u>-91</u>	<u>6.77</u>	<u>0.83</u>	<u>98.5</u>	<u>81</u>	<u>2.64</u>	<u>66.49</u>
<u>Purge Dry</u>	<u>Return to Sample Another Day</u>						<u>2</u>			
<u>1227</u>		<u>5.1</u>	<u>24.2</u>	<u>-5</u>	<u>7.0</u>	<u>0.87</u>	<u>241</u>	<u> </u>	<u> </u>	<u>33.43</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>PZ-05</u>	<u>10/10/08</u>	<u>1227</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See COC</u>

Samplers Signature(s): Ken Wal

purged dry *

10/10/08

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>P2-06</u>	Screen Interval: <u>18-78</u>	Depth to Water: <u>34.25</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>PMI VRP</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-7-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>85</u>	Measured From: <u>TOC sounding tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>29.7 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 20.8 °C pH: 7.0 = ✓ at °C pH: 10.00 = ✓ at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 100 @ 20.8

Conductivity: Standard 0.449 µmhos/cm at 25 °C Reading 0.45 µmhos/cm at 20.8 °C

Dissolved Oxygen: Meter 9.3 mg/L at 20.8 °C PID: Calibration Gas Type ✓ PPM Span Reading

Date / Time of Calibration(s): 10-7-08 0750

Instrument Model and Serial Number(s): Horiba U22 X10 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1033</u>	<u>23 gpm</u>	<u>5.5</u>	<u>23.1</u>	<u>153</u>	<u>7.08</u>	<u>0.30</u>	<u>58.2</u>	<u>—</u>	<u>—</u>	<u>34.25</u>
<u>1035</u>	<u>23</u>	<u>3.7</u>	<u>23.3</u>	<u>145</u>	<u>6.12</u>	<u>0.28</u>	<u>48.0</u>	<u>69</u>	<u>2.3</u>	<u>TA-20</u>
<u>Return to collect sample another day</u>										
<u>1510</u>	<u>23.10</u>	<u>7.5</u>	<u>29.0</u>	<u>249</u>	<u>6.60</u>	<u>0.28</u>	<u>55.9</u>	<u>—</u>	<u>—</u>	<u>34.23</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

* 1035
purged
dry
10-8-08

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>P2-06</u>	<u>10-8-08</u>	<u>1510</u>	<u>*</u>	<u>9</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See COC</u>

Samplers Signature(s): Ken Wald

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>P2-7</u>	Screen Interval: <u>100-150</u>	Depth to Water: <u>139.73</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>10-14-08</u>	
Project Number: <u>24096837</u>	Total Well Depth: <u>155</u>	Measured From: <u>TOC (inner)</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N</u>	Well Volume <u>6.7 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.04 at 15.2 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 101

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.95 umhos/cm at 15.2 °C

Dissolved Oxygen: Meter 11.1 mg/L at 15.2 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10-14-08 @ 0740 ORP Solution: 76mV @ 15.2 °C

Instrument Model and Serial Number(s): 122XD 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1110	250 mL/min	0.1	26.2	-32	8.17	0.11	669.0	-	-	139.73
1113		0.1	25.8	-37	8.15	0.12	161.0			139.80
1116		0.1	25.2	-41	8.30	0.13	16.6			139.84
1119		0.2	24.9	-37	8.26	0.12	7.0			139.84
1122		0.2	24.7	-33	8.29	0.13	61.2			139.86
1127		0.1	24.5	-32	8.29	0.13	53.5			139.89
1137	↓	0.1	24.7	-31	8.32	0.12	51.9			139.89
1147		0.1	24.9	-29	8.33	0.12	55.4			139.90
1153		0.1	25.0	-28	8.31	0.13	54.7			139.90
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>P2-7</u>	<u>10/14/08</u>	<u>1200</u>	<u>*</u>	<u>2</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See COC</u>

Samplers Signature(s): Ken W...

SAMPLING SHEET

Sierrita VRP

Well ID: <u>PZ-08</u>	Screen Interval: <u>92-195</u>	Depth to Water: <u>222-49</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-8-08 0956</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>275</u>	Measured From: <u>Top of Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>24.13</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.01 at 21.2 °C pH: 7.0= at _____ °C pH: 10.00= at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 100 = Reading 102

Conductivity: Standard 0.449 μ mhos/cm at 25 °C Reading 0.45 μ mhos/cm at 21.2 °C

Dissolved Oxygen: Meter 9.0 mg/L at 21.2 °C PID: Calibration Gas Type PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10-8-08 0800

Instrument Model and Serial Number(s): 422 x 0 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (μ S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1000	6	-	-	-	-	-	-	-	-	-
1003	4	7.0	25.7	303	7.22	0.14	53.3	18	0.52	
1010	2	1.4	25.2	-54	6.84	0.12	459.0	32	0.93	234.3
1013	2	0.1	26.0	-144	7.26	0.12	135.2	38	1.11	236.60
1015	2 2	0.5	26.3	-143	7.27	0.12	135.0	42	1.23	238.50
1025	2	1.3	26.8	13 97	7.25	0.12	177.0	62	1.81	239.15
1035	1.3	1.5	26.9	-52	7.24	0.13	230	75	2.19	240.45
1045	1.3	1.9	29.0	-19	7.24	0.13	260	88	2.57	241.00
1055	1.3	2.0	28.8	27	7.21	0.14	632	101	2.95	241.90
1100	1.3	2.0	28.2	30	7.22	0.14	788	107.5	3.14	242.40
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

Very Cloudy
↓

note: many tiny bubbles in flow cell tubing.

SAMPLING INFORMATION

Unable to stabilize well... due to cascading water. Pump set at ~ 270.

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>PZ-08</u>	<u>10/8/08</u>	<u>1100</u>	<u>*</u>	<u>9</u>	<u>*</u>	<u>*</u>	<u>See Col</u>	<u>* See Log Book</u>

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>PZ-16</u>	Screen Interval: <u>20-80</u>	Depth to Water: <u>15.70'</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMS VRP</u>	Well Diameter: <u>4</u>	Date Measured: <u>10-7-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>82</u>	Measured From: <u>TOC sounding tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>✓</u>	Well Volume: <u>43.1 gal</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 20.8 °C pH: 7.0 = ✓ at °C pH: 10.00 = ✓ at °C
Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 100 @ 20.8
Conductivity: Standard 0.449 µmhos/cm at 25 °C Reading 0.45 µmhos/cm at 20.8 °C
Dissolved Oxygen: Meter 9.3 mg/L at 20.8 °C PID: Calibration Gas Type ✓ PPM Span Reading
Date / Time of Calibration(s): 10/7/08 0750
Instrument Model and Serial Number(s): Horiba U22 XD 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1146	10 gpm	9.4	25.2	142	6.62	0.78	97.1	—	—	15.70
1149	10	3.6	25.0	144	6.49	0.79	56.4	30	0.69	38.0
1152	10	3.0	25.2	170	6.48	0.80	51.2	60	1.4	52.5
1155	10	1.8	22.8	111	6.51	0.77	76.7	90	2.1	73.0
<i>Return to Sample Another Day.</i>										
0855		2.8	23.4	57	6.54	0.73	5.0			30.35 - STATIC
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

purge dry *

SAMPLE 10-9-08

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-16	10/9/08	0855	X	9	X	X	see lab	See Log Book
PZ-22			X	9	X	X	see lab	Dup of PZ-16

Samplers Signature(s): Kerbal

SAMPLING SHEET

Sierrita VRP

Well ID: <u>P2-2007-05</u>	Screen Interval: <u>232-288</u>	Depth to Water: <u>246.69</u>	Page <u>1</u> of <u>2</u>
Project Name: <u>FWS VRP</u>	Well Diameter: <u>2"</u>	Date Measured: <u>10-8-08</u>	
Project Number: <u>2409633</u>	Total Well Depth: <u>288</u>	Measured From: <u>70c PVC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>no</u>	Well Volume <u>6.7 gal.</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.01 at 21.2 °C pH: 7.0= ✓ at _____ °C pH: 10.00= ✓ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 102

Conductivity: Standard 0.449 ~~umhos~~ /cm at 25 °C Reading 0.45 ~~umhos~~ /cm at 21.2 °C

Dissolved Oxygen: Meter 0.0 mg/L at 21.2 °C PID: Calibration Gas Type ✓ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 11/8/08 0800

Instrument Model and Serial Number(s): 122 X2 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1250</u>	<u>1gpm</u>	<u>10.3</u>	<u>29.7</u>	<u>200</u>	<u>7.28</u>	<u>0.25</u>	<u>18.0</u>	<u>-</u>	<u>-</u>	<u>246.69</u>
<u>1255</u>	<u>1gpm</u>	<u>10.2</u>	<u>29.0</u>	<u>204</u>	<u>7.32</u>	<u>0.25</u>	<u>361</u>	<u>5</u>	<u>0.75</u>	
<u>1258</u>	<u>1gpm</u>	<u>6.8</u>	<u>29.6</u>	<u>214</u>	<u>7.09</u>	<u>0.26</u>	<u>704</u>	<u>8</u>	<u>1.2</u>	
<u>1301</u>	<u>1gpm</u>	<u>9.2</u>	<u>29.6</u>	<u>211</u>	<u>7.17</u>	<u>0.25</u>	<u>849</u>	<u>11</u>	<u>1.6</u>	
<u>1304</u>	<u>0.3</u>	<u>8.9</u>	<u>29.4</u>	<u>214</u>	<u>7.18</u>	<u>0.25</u>	<u>905</u>	<u>14.7</u>	<u>2.11</u>	
<u>1309</u>	<u>0.5</u>	<u>8.5</u>	<u>29.2</u>	<u>216</u>	<u>7.23</u>	<u>0.09</u>	<u>470</u>	<u>9.5</u>	<u>1.4</u>	
<u>1315</u>	<u>0.3</u>	<u>4.7</u>	<u>29.6</u>	<u>223</u>	<u>7.12</u>	<u>0.25</u>	<u>140</u>	<u>12.5</u>	<u>1.86</u>	
<u>1320</u>	<u>0.3</u>	<u>4.2</u>	<u>30.1</u>	<u>211</u>	<u>7.18</u>	<u>0.25</u>	<u>781</u>	<u>14</u>	<u>2.1</u>	
<u>1325</u>	<u>0.3</u>	<u>4.1</u>	<u>30.3</u>	<u>214</u>	<u>7.17</u>	<u>0.25</u>	<u>98.2</u>	<u>15.5</u>	<u>2.3</u>	
<u>1330</u>	<u>0.3</u>	<u>4.1</u>	<u>30.3</u>	<u>220</u>	<u>7.13</u>	<u>0.25</u>	<u>72.3</u>	<u>17</u>	<u>2.5</u>	
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments

Samplers Signature(s): _____

1304
1309
1315

SAMPLING SHEET

Sierrita VRP

Well ID: PZ-2007-05	Screen Interval: 232-288	Depth to Water: 246.69	Page 2 of 2
Project Name: Fm. Sierrita	Well Diameter: 2"	Date Measured: 10-8-08	
Project Number: 24096838	Total Well Depth: 288	Measured From: TOC	
Task Code: 10015	Dedicated Pump: no	Well Volume: 6.7 gal.	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.01 at 21.2 °C pH: 7.0= ✓ at °C pH: 10.00= ✓ at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 102.0

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 21.2 °C

Dissolved Oxygen: Meter 9.0 mg/L at 21.2 °C PID: Calibration Gas Type ✓ PPM Span Reading

Date / Time of Calibration(s): 10/8/08 0800

Instrument Model and Serial Number(s): 1122 XD 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1335	0.3	4.0	30.0	227	7.10	0.25	540	18.5	2.75	
1340	0.3	4.0	30.0	227	7.10	0.25	197	20	2.99	
1345	0.3	4.0	29.9	229	7.11	0.25	5.0	21.5	3.2	
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-2007-05	10-8-08	1345	*	*9	*	*	*	see COC

Samplers Signature(s): _____

SAMPLING SHEET

Sierrita VRP

Well ID: <u>Amargosa Intercept</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>19.05</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>Sump ~ 12'</u>	Date Measured: <u>11-6-08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>?</u>	Measured From: <u>top of Sump S. Side</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>NA</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.29 at 20.65 °C pH: 7.00= ✓ at °C pH: 10.00= ✓ at °C
Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 99.3
Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.48 umhos/cm at 20.65 °C
Dissolved Oxygen: Meter 8.93 8.52 mg/L at 20.65 °C PID: Calibration Gas Type ✓ PPM Span Reading 1
Date / Time of Calibration(s): 11-6-08 1430

Instrument Model and Serial Number(s): Horiba U22 XD # 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1515</u>	<u>10 GPM</u>	<u>6.50</u>	<u>21.90</u>	<u>362</u>	<u>7.44</u>	<u>1.8</u>	<u>4.9</u>	<u>~50</u>	<u>unk</u>	<u>19.05</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Used Sump Pump - Manual

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Amargosa Intercept</u>	<u>11-6-08</u>	<u>1515</u>	<u>X Sump Log Book</u>					<u>X</u>

Samplers Signature(s): [Signature]

SAMPLING TA SHEET

Sierrita VRP

Well ID: <u>Amatosa Pond</u>	Screen Interval: <u>na</u>	Depth to Water: <u>na</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>na</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>na</u>	Measured From: <u>na</u>
Task Code: <u>10015</u>	Dedicated Pump: <u>na</u>	Well Volume <u>na</u>

Page 1 of 1

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 17.88 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C
 Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.9
 Conductivity: Standard 0.499 umhos/cm at 25 °C Reading 0.45 umhos/cm at 17.88 °C
 Dissolved Oxygen: Meter 9.68 mg/L at 17.88 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____
 Date / Time of Calibration(s): 10-24-08 @ 0730 ORP (89mV) - 93 mV @ 17.88°C
 Instrument Model and Serial Number(s): U22XD 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1215</u>	<u>na</u>	<u>8.08</u>	<u>24.06</u>	<u>531</u>	<u>2.50</u>	<u>2.8</u>	<u>2.9</u>	<u>na</u>	<u>na</u>	<u>na</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Amatosa Pond</u>	<u>10/24/08</u>	<u>1215</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>

Samplers Signature(s): _____

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>B Sump</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>6.55'</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP Sierrita</u>	Well Diameter: <u>Sump</u>	Date Measured: <u>10/27/08</u>	
Project Number: <u>24096828</u>	Total Well Depth:	Measured From: <u>ACCESS PORT/ManWay</u>	
Task Code: <u>1000 10011</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>NA</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.00 at 21.10 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.5

Conductivity: Standard 0.949 ⁵ umhos/cm at 25 °C Reading 0.45 ³ umhos/cm at 21.10 °C

Dissolved Oxygen: Meter 8.85 mg/L at 21.10 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/27/08 @ 0800 ORP 98 mV @ 21.1 °C

Instrument Model and Serial Number(s): Hanna U22KD # 8153008

WELL PURGING

~ 206 ppm Sump Pump

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	10 min Gallons Purged	Casing Vol.	Depth to Water
<u>0920</u>	<u>NA</u>	<u>5.68</u>	<u>24.33</u>	<u>352</u>	<u>3.30</u>	<u>1.1</u>	<u>9.8</u>	<u>~200</u>	<u>?</u>	<u>6.55</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Sump Pump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>B Sump</u>	<u>10/27/08</u>	<u>0916</u>	<u>See Log Book</u>					<u>A See Log Book</u>

Samplers Signature(s): [Signature]

SAMPLING TA SHEET

Sierrita VRP

Well ID: <u>Boiley Lake</u>	Screen Interval: <input checked="" type="checkbox"/>	Depth to Water: <u>✓ Surface Sample</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FWS VRP</u>	Well Diameter: <input checked="" type="checkbox"/>	Date Measured: <input checked="" type="checkbox"/>	
Project Numbers: <u>4096838</u>	Total Well Depth: <input checked="" type="checkbox"/>	Measured From: <input checked="" type="checkbox"/>	
Task Code: <u>10015</u>	Dedicated Pump: <input checked="" type="checkbox"/>	Well Volume: <input checked="" type="checkbox"/>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 21.3 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.2 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.0

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 21.3 °C

Dissolved Oxygen: Meter 9.01 mg/L at 21.3 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/23/08 @ 1215

Instrument Model and Serial Number(s): H0169 U22X10 #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1415</u>	<u>NA</u>	<u>8.75</u>	<u>20.4</u>	<u>558</u>	<u>7.19</u>	<u>2.9</u>	<u>10.6</u>	<u>NA</u>	<u>NA</u>	<u>NA Surface</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge Surface Sample

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Boiley Lake</u>	<u>10/23/08</u>	<u>1415</u>						<u>Peristaltic/Bucket</u>

Samplers Signature(s): [Signature] [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>C Sump</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>5.00</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FINE VRP Sierrita</u>	Well Diameter: <u>5ump</u>	Date Measured: <u>10/27/08</u>	
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>Access Port/ManWay</u>	
Task Code: <u>1001</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>NK</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 21.10 °C pH: 7.0 = at _____ °C pH: 10.00 = at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 100 = Reading 98.5

Conductivity: Standard 0.449 ⁵ umhos/cm at 25 °C Reading 0.45 ⁵ umhos/cm at 21.10 °C

Dissolved Oxygen: Meter 8.85 mg/L at 21.10 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/27/08 @ 0800 6RP 98MV @ 21.1 °C

Instrument Model and Serial Number(s): Horiba U22X10 # 8153008

WELL PURGING

~ 20 GPM Sump Pump

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	~ 10 MP Gallons Purged	Casing Vol.	Depth to Water
<u>0944</u>	<u>na</u>	<u>6.49</u>	<u>22.89</u>	<u>231</u>	<u>6.04</u>	<u>0.51</u>	<u>12.8</u>	<u>200</u>	<u>na</u>	<u>5.0</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Baller Low Flow/Micropurge Sump Pump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>C SUMP</u>	<u>10/27/08</u>	<u>0944</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>

Samplers Signature(s): _____

SAMPLING SHEET

Sierrita VRP

Well ID: <u>FORMER B POND</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>1' INCONS Sample from</u>	<u>access port at ground level</u>
Project Name: <u>EM I VRP</u>	Well Diameter: <u>NA</u>	Date Measured: <u>11-6-08</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096938</u>	Total Well Depth: <u>UNK</u>	Measured From: <u>Access Port</u>	
Task Code: <u>12011</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.29 at 20.65 °C pH: 7.00 = ✓ at °C pH: 10.00 = ✓ at °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: 100 = Reading 99.3

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 20.65 °C

Dissolved Oxygen: Meter 8.52 mg/L at 20.65 °C PID: Calibration Gas Type ✓ PPM Span Reading

Date / Time of Calibration(s): 11-6-08 1430

Instrument Model and Serial Number(s): Horiba U22XD # 815300K

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1430</u>	<u>NA</u>	<u>5.93</u>	<u>14.72</u>	<u>4.46</u>	<u>3.28</u>	<u>2.1</u>	<u>62.2</u>	<u>NA</u>	<u>NA</u>	<u>1'</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump X Hand Baller Low Flow/Micropurge Dipped 5' gal bucket w/ surf

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Former B Pond</u>	<u>11-6-08</u>	<u>1430</u>	<u>See Log</u>	<u>Book</u>	<u>X</u>			<u>X</u>

Samplers Signature(s): [Signature]

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>Headwall No. 1</u>	Screen Interval: <input checked="" type="checkbox"/>	Depth to Water: <u>Surface Flow</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <input checked="" type="checkbox"/>	Date Measured: <input checked="" type="checkbox"/>	
Project Number: <u>24096838</u>	Total Well Depth: <input checked="" type="checkbox"/>	Measured From: <input checked="" type="checkbox"/>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <input checked="" type="checkbox"/>	

3/8" - 0.0025 gal./ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 21.3 °C pH: 7.0 = X at _____ °C pH: 10.00 = X at _____ °C

Turbidity: NTU: 0 = Reading 0.2 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.0

Conductivity: Standard 0.449 ~~umhos~~ /cm at 25 °C Reading 0.45 ~~umhos~~ /cm at 21.3 °C

Dissolved Oxygen: Meter 8.01 mg/L at 21.3 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/23/08 @ 1215

Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1340</u>	<u>NA</u>	<u>7.48</u>	<u>21.8</u>	<u>572</u>	<u>2.34</u>	<u>2.9</u>	<u>9.6</u>	<u>na</u>	<u>na</u>	<u>na</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____ SURFACE SAMPLE

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 1</u>	<u>10/23/08</u>	<u>1340</u>	<u>Seal</u>	<u>Log</u>	<u>Book</u>			<u>Peristaltic/Bucket</u>

Samplers Signature(s): [Signature]

SAMPLING SHEET

Sierrita VRP

Well ID: <u>Headwall No. 2</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>Surface</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Fms VRP</u>	Well Diameter: <u>NA</u>	Date Measured: <u>11-7-08</u>	
Project Number: <u>24096938</u>	Total Well Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00 = 3.98 at 18.27 °C pH: 7.0 = at _____ °C pH: 10.00 = at _____ °C
 Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: = Reading _____
 Conductivity: Standard 0.449 μ mhos/cm at 25 °C Reading 0.45 μ mhos/cm at 18.27 °C
 Dissolved Oxygen: ^{8.93} Meter 9.31 mg/L at 18.27 °C PID: Calibration Gas Type PPM Span Reading _____
 Date / Time of Calibration(s): 11-7-08 @ 1045 hrs
 Instrument Model and Serial Number(s): Hanna U22X10 # 853208

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	pH	Spec. Cond (μ S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1415</u>	<u>NA</u>	<u>11.02</u>	<u>14.03</u>	<u>568</u>	<u>2.61</u>	<u>2.9</u>	<u>0.32</u>	<u>NA</u>	<u>NA</u>	<u>Surface</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Baller _____ Low Flow/Micropurge Dipped 5 gal bucket in pond

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 2</u>	<u>11-7-08</u>	<u>1415</u>	<u>X See Log Book</u>					

Samplers Signature(s): [Signature]

SAMPLING SHEET

Sierrita VRP

Well ID: <u>Headwall No. 3</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>Surface</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMS VRP</u>	Well Diameter: <u>NA</u>	Date Measured: <u>11-7-08</u>	
Project Number: <u>24096338</u>	Total Well Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.98 at 18.27 °C pH: 7.0= ✓ at _____ °C pH: 10.00= ✓ at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: ✓ = Reading _____

Conductivity: Standard 0.449 ^{8.93} 5 umhos/cm at 25 °C Reading 0.45 5 umhos/cm at 18.27 °C

Dissolved Oxygen: L Meter 9.31 mg/L at 18.27 °C PID: Calibration Gas Type ✓ PPM ✓ Span _____ Reading _____

Date / Time of Calibration(s): 11-7-08 1045 hrs

Instrument Model and Serial Number(s): Hanba 622 X10 # 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1455</u>	<u>NA</u>	<u>9.69</u>	<u>20.75</u>	<u>553</u>	<u>2.84</u>	<u>2.9</u>	<u>0.22</u>	<u>NA</u>	<u>NA</u>	<u>Surface</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump X Hand Bailer _____ Low Flow/Micropurge Dipped 5 gal bucket in Pond

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No 3</u>	<u>11-7-08</u>	<u>1455</u>	<u>* See</u>	<u>Log Book</u>				<u>X</u>

Samplers Signature(s): [Signature]

SAMPLING SHEET

Sierrita VRP

Well ID: <u>Headwall No. 5</u>	Screen Interval: <u>na</u>	Depth to Water: <u>na</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FM1 VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>11/10/08</u>	
Project Number: <u>24096830</u>	Total Well Depth: <u>na</u>	Measured From: <u>na</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>na</u>	Well Volume <u>na</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 17.06 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.2 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 99.5

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 17.06 °C

Dissolved Oxygen: Meter 4.61 mg/L at 17.06 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 11/10/08 @ 08:30 ORP 89 mV; 91 mV @ 19:36

Instrument Model and Serial Number(s): HoriBa U22XP #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1020</u>	<u>-</u>	<u>10.73</u>	<u>14.21</u>	<u>330</u>	<u>4.37</u>	<u>0.99</u>	<u>98</u>	<u>-</u>	<u>-</u>	<u>-</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge Peri Pump

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 5</u>	<u>11/10/08</u>	<u>1020</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>see log</u>

Samplers Signature(s): K. W. [Signature]

SAMPLING TA SHEET

STICKUP 4.46' Sierrita VRP

Well ID: <i>Intercept No. 1</i>	Screen Interval: <i>na</i>	Depth to Water: <i>21.81</i>	Page <u>1</u> of <u>1</u>
Project Name: <i>FMI VRP</i>	Well Diameter: <i>na</i>	Date Measured: <i>10-23-08</i>	
Project Number: <i>24096838</i>	Total Well Depth: <i>26.6 kw</i>	Measured From: <i>TOC</i>	
Task Code: <i>10015</i>	Dedicated Pump: <i>na</i>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 21.3 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.2 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.0

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 21.3 °C

Dissolved Oxygen: Meter 8.01 mg/L at 21.3 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/23/08 @ 1215

Instrument Model and Serial Number(s): Horiba U22XD # 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1500 1340	<i>na</i>	<i>3.43</i>	<i>38.3</i>	<i>344</i>	<i>3.19</i>	<i>2.0</i>	<i>12.1</i>	<i>na</i>	<i>na</i>	<i>21.81</i>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge SURFACE SAMPLE

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<i>Intercept No. 1</i>	<i>10/23/08</i>	<i>1500</i>	<i>Sev</i>	<i>Log</i>	<i>Bools</i>			

Samplers Signature(s): _____

SAMPLING SHEET

Sierrita VRP

Well ID: Amargosa Intercept No. 2	Screen Interval: NA	Depth to Water: 8.68' below top of sump	Page 1 of 1
Project Name: FMI VRP	Well Diameter: Sump	Date Measured: 11-7-08	
Project Number: 24096838	Total Well Depth: N/A	Measured From: Manway Top of Sump	
Task Code: 1001	Dedicated Pump: Yes/working	Well Volume: N/A	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.98 at 18.27 °C pH: 7.0 = ✓ at _____ °C pH: 10.00 = ✓ at _____ °C
Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading ✓ NTU: 1 = Reading ✓ Other: NTU: ✓ = Reading ✓
Conductivity: Standard 0.449 ⁵ umhos/cm at 25 °C Reading 0.75 ⁵ umhos/cm at 18.27 °C
Dissolved Oxygen: Meter 8.73 9.31 mg/L at 18.27 °C PID: Calibration Gas Type ✓ PPM _____ Span _____ Reading _____
Date / Time of Calibration(s): 11-7-08 @ 1045 hrs
Instrument Model and Serial Number(s): Horiba U22 x10 # 8153008

WELL PURGING

Water Clear

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1305	NA	8.53	23.06	130	6.92	6.1	0.57	NA	NA	8.68
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge Peristaltic Pump _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
Amargosa Intercept no. 2	11-7-08	1305	X See Log Book					X

Samplers Signature(s): 

Tubing in Sump

SAMPLING TA SHEET

Sierrita VRP

Well ID: <u>Raffinate Pond No. 2</u>	Screen Interval: <u>na</u>	Depth to Water: <u>na</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>10/24/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>na</u>	Measured From: <u>na</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>na</u>	Well Volume: <u>na</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 17.88 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.1 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.9

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 17.88 °C

Dissolved Oxygen: Meter 9.68 mg/L at 17.88 °C PID: Calibration Gas Type X PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10-24-08 @ 0730 ORP (89 mV): 93 mV @ 17.88 °C

Instrument Model and Serial Number(s): V22 XD # 8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1124</u>	<u>na</u>	<u>5.55</u>	<u>22.48</u>	<u>458</u>	<u>7.96</u>	<u>3.2</u>	<u>10.8</u>	<u>na</u>	<u>na</u>	<u>na</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge SURFACE SAMPLE

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Raffinate Pond No. 2</u>	<u>10/24/08</u>	<u>1124</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>

Samplers Signature(s): _____

SAMPLING SHEET

Sierrita VRP

Well ID: <u>Reclaim Pond</u>	Screen Interval: <u>na</u>	Depth to Water: <u>na</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>11/10/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>na</u>	Measured From: <u>na</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>na</u>	Well Volume: <u>na</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.99 at 17.06 °C pH: 7.0= x at _____ °C pH: 10.00= x at _____ °C
Turbidity: NTU: 0 = Reading 0.2 NTU: 10 = Reading _____ NTU: 1 = Reading _____ Other: NTU: 100 = Reading 99.5
Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 17.06 °C
Dissolved Oxygen: Meter 9.61 mg/L at 17.06 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____
Date / Time of Calibration(s): 11/10/08 @ 0830 ORP 89 mV : 91 mV @ 19.35 °C
Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1155</u>	<u>na</u>	<u>5.08</u>	<u>22.7</u>	<u>-334</u>	<u>10.43</u>	<u>0.32</u>	<u>62.4</u>	<u>na</u>	<u>na</u>	<u>na</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailor _____ Low Flow/Micropurge Peri Pump x

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Reclaim Pond</u>	<u>11/10/08</u>	<u>1155</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See Log</u>
<u>Reclaim Pond D</u>	<u>11/10/08</u>	<u>1200</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>See Log</u>

Samplers Signature(s): _____

SAMPLING SHEET

Sierrita VRP

Well ID: <u>SX-Sump 1</u>	Screen Interval: <u>na</u>	Depth to Water: <u>6.66</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>10/27/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>12.58</u>	Measured From: <u>TOC</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>n</u>	Well Volume: <u>n/a</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 21.10 °C pH: 7.0 = X at _____ °C pH: 10.00 = X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.5

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 21.0 °C

Dissolved Oxygen: Meter 8.85 mg/L at 21.0 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/27/08 @ 0800

Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (uS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1215</u>	<u>na</u>	<u>5.80</u>	<u>23.33</u>	<u>394</u>	<u>3.01</u>	<u>1.8</u>	<u>502.0</u>	<u>na</u>	<u>na</u>	<u>6.66</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump X Hand Bailor _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX-Sump 1</u>	<u>10/27/08</u>	<u>1215</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>		
<u>SX-Sump 1 D</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>					

Samplers Signature(s): *Ken Wink*

SAMPLING DATA SHEET

Sierrita VRP

Well ID: <u>SX-Sump 2</u>	Screen Interval: <u>na</u>	Depth to Water: <u>6.90</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>Fm VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>10/27/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>12.50</u>	Measured From: <u>TOC</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>n</u>	Well Volume: <u>n/a</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 21.1 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.5

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.95 umhos/cm at 21.0 °C

Dissolved Oxygen: Meter 8.85 mg/L at 21.0 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/27/08 @ 0800

Instrument Model and Serial Number(s): Horiba U22X0 #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1100</u>	<u>na</u>	<u>4.75</u>	<u>23.92</u>	<u>438</u>	<u>2.66</u>	<u>1.8</u>	<u>20.0</u>	<u>na</u>	<u>na</u>	<u>6.90</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump X Hand Bailer _____ Low Flow/Micropurge _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX-Sump 2</u>	<u>10/27/08</u>	<u>1100</u>	<u>see log</u>	<u>see log</u>	<u>see log</u>	<u>see log</u>	<u>see log</u>	<u>see log</u>

Samplers Signature(s): Ken Walsh

SAMPLING SHEET

Sierrita VRP

Well ID: <u>SX-Sump 3</u>	Screen Interval: <u>na</u>	Depth to Water: <u>8.72</u>	Page <u>1</u> of <u>1</u>
Project Name: <u>EMI VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>10/27/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>12.0</u>	Measured From: <u>70c</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>N</u>	Well Volume	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 21.1 °C pH: 7.0= X at _____ °C pH: 10.00= X at _____ °C

Turbidity: NTU: 0 = Reading 0.0 NTU: 10 = Reading X NTU: 1 = Reading X Other: NTU: 100 = Reading 98.5

Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.95 umhos/cm at 21.0 °C

Dissolved Oxygen: Meter 8.85 mg/L at 21.0 °C PID: Calibration Gas Type _____ PPM _____ Span _____ Reading _____

Date / Time of Calibration(s): 10/27/08 @ 0800

Instrument Model and Serial Number(s): Hanna U22KD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1140</u>	<u>na</u>	<u>7.16</u>	<u>24.28</u>	<u>434</u>	<u>3.06</u>	<u>2.1</u>	<u>28.9</u>	<u>na</u>	<u>na</u>	<u>8.72</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bailer _____ Low Flow/Micropurge

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX-Sump 3</u>	<u>10/27/08</u>	<u>1140</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	<u>See Log</u>	

Samplers Signature(s): Kare Walsh

SAMPLING SHEET

Sierrita VRP

Well ID: <u>SX-3 Stormwater Pond</u>	Screen Interval: <u>na</u>	Depth to Water: <u>na</u>	Page <u>1</u> of <u> </u>
Project Name: <u>FMI VRP</u>	Well Diameter: <u>na</u>	Date Measured: <u>11/10/08</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>na</u>	Measured From: <u>na</u>	
Task Code: <u>10011</u>	Dedicated Pump: <u>na</u>	Well Volume: <u>na</u>	

3/8" - 0.0025 gal/ft. 1/4" - 0.0014 gal/ft.

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00 = 3.99 at 17.06 °C pH: 7.0 = X at °C pH: 10.00 = X at °C
 Turbidity: NTU: 0 = Reading 0.2 NTU: 10 = Reading NTU: 1 = Reading Other: NTU: 100 = Reading 99.5
 Conductivity: Standard 0.449 umhos/cm at 25 °C Reading 0.45 umhos/cm at 17.06 °C
 Dissolved Oxygen: Meter 9.61 mg/L at 17.06 °C PID: Calibration Gas Type PPM Span Reading
 Date / Time of Calibration(s): 11/10/08 @ 0830 ORP 89mV : 91mV @ 19.36 °C
 Instrument Model and Serial Number(s): Horiba U22XD #8153008

WELL PURGING

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0945</u>		<u>10.92</u>	<u>10.89</u>	<u>400</u>	<u>3.99</u>	<u>2.6</u>	<u>46.3</u>			
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLING INFORMATION

Sampling Method: Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Peri Pump X

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX-3 Stormwater Pond</u>	<u>11/10/08</u>	<u>0945</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>see log</u>

Samplers Signature(s): K. W. L.

SAMPLING DATA SHEET

Well ID: <u>MW-2008-01</u>	Screen Interval:	Depth to Water: <u>64.05'</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-15-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>ROC</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 19.94 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading ✓
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 19.94 °C
 Dissolved Oxygen: Standard 8.84 mg/L at 20 °C Reading 8.89 mg/L at 19.94 °C
 ORP: Standard 95 mV at 20 °C Reading 109 mV at 19.94 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) By K.V./FMI

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate (gpm)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1420</u>	<u>-</u>	<u>Begin Pumping</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>64.05</u>
<u>1443</u>	<u>150</u>	<u>10.07</u>	<u>24.92</u>	<u>204</u>	<u>6.64</u>	<u>0.65</u>	<u>147.0</u>	<u>-</u>	<u>-</u>	<u>64.10</u>
<u>1446</u>	<u>150</u>	<u>8.50</u>	<u>24.27</u>	<u>200</u>	<u>6.59</u>	<u>0.28</u>	<u>125.0</u>	<u>-</u>	<u>-</u>	<u>64.10</u>
<u>1449</u>	<u>150</u>	<u>8.10</u>	<u>24.24</u>	<u>198</u>	<u>6.60</u>	<u>0.28</u>	<u>124.0</u>	<u>-</u>	<u>-</u>	<u>64.11</u>
<u>1452</u>	<u>150</u>	<u>7.90</u>	<u>24.15</u>	<u>193</u>	<u>6.60</u>	<u>0.28</u>	<u>117.0</u>	<u>-</u>	<u>-</u>	<u>64.14</u>
<u>1455</u>	<u>150</u>	<u>7.79</u>	<u>24.17</u>	<u>190</u>	<u>6.60</u>	<u>0.28</u>	<u>113.0</u>	<u>-</u>	<u>-</u>	<u>64.14</u>
<u>1458</u>	<u>150</u>	<u>7.63</u>	<u>24.22</u>	<u>186</u>	<u>6.61</u>	<u>0.28</u>	<u>114.0</u>	<u>-</u>	<u>-</u>	<u>64.14</u>
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)										

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-01</u>	<u>1-15-09</u>	<u>1458</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature] & Rory Cluff

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃. Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-03 Screen Interval: 22-62 Depth to Water: 34.42 GWS QTR 1
Project Name: FMI Sierrita Well Diameter: 4 Date Measured: 1-16-09
Project Number: 24096838 Total Well Depth: Measured From: 70c Page 1 of 1
Task Code: 10015 Dedicated Pump: NO Well Volume

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 17.42 C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 101
Conductivity: Standard 0.449 S/cm at 25 C Reading 0.45 S/cm at 17.42 C
Dissolved Oxygen: Standard 9.37 mg/L @ 17 C Reading 9.76 mg/L at 17.42 C
ORP: Standard 75 mV at 20 C Reading 92 mV at 17.42 C
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Table with columns: Time, Discharge Rate, Dissolved Oxygen (mg/L), Temp °C, Eh/ORP (mV), pH, Spec. Cond (S/cm), Turbidity (NTU), Gallons Purged, Casing Vol., Depth to Water. Contains handwritten data points from 1420 to 1505.

Flow

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer X Low Flow/Micropurge Bennett

Table with columns: Sample ID, Date, Time, Container Type, Number of Containers, Preservative, Filtered Yes/No, Analysis, Comments. Includes handwritten entries for MW-2008-03 on 1/16/09 at 1505.

Samplers Signature(s): [Signatures] & Christ Rock

- Radiochemistry: gross alpha/beta, radium 228, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-04 Screen Interval: 22-62 Depth to Water: 34.04' GWS QTR 1
Project Name: FMI Sierrita Well Diameter: 4 Date Measured: 1-19-09
Project Number: 24096838 Total Well Depth: Measured From: TOC Page 1 of 1
Task Code: 10015 Dedicated Pump: ND Well Volume

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.08 at 18.80 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 99.8
Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 18.80 °C
Dissolved Oxygen: Standard 9.0 mg/L @ 19.0 °C Reading 8.87 mg/L at 18.76 °C
ORP: Standard 95 mV at 20 °C Reading 83 mV at 18.93 °C
Date / Time of Calibration(s): (Horiba U22/BSn: 8153008) 20

WELL PURGING AND STABILIZATION PARAMETERS

Table with 11 columns: Time, Discharge Rate, Dissolved Oxygen (mg/L), Temp °C, Eh/ORP (mV), pH, Spec. Cond (S/cm), Turbidity (NTU), Gallons Purged, Casing Vol., Depth to Water. Contains 13 rows of data with handwritten values.

BS 1-19-09

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer X Low Flow/Micropurge Bennett

Table with 9 columns: Sample ID, Date, Time, Container Type, Number of Containers, Preservative, Filtered Yes/No, Analysis, Comments. Contains 6 rows of sample collection data.

Samplers Signature(s): Pally Ready

Radiochemistry: gross alpha/beta, radium 226, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-05	Screen Interval: 19-49	Depth to Water: 29.61	GWS QTR: 1
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 1-20-09	Page 1 of _____
Project Number: 24096838	Total Well Depth:	Measured From: Top Plastic	
Task Code: 10015	Dedicated Pump: NO	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00 = 4.0 at 17.40 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 99.5
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 17.40 °C
 Dissolved Oxygen: Standard 19.37 mg/L Reading 9.24 mg/L at 17.40 °C
 ORP: Standard 95 mV at 19 °C Reading 78 mV at 20.65 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond. μ (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1243	0.1	7.91	38.33	133	6.75	0.2	91.7			29.67
1246	0.1	12.49	25.22	159	7.09	0.323	0.0			29.74
1249	0.1	9.19	24.53	187	6.82	0.284	0.0			29.74
1252	0.1	8.48	24.49	189	6.80	0.273	0.0			29.75
1257	0.1	7.73	24.28	191	6.77	0.270	0.0			29.75
1302	0.1	7.25	23.93	188	6.78	0.268	0.0			29.75
1307	0.1	6.89	23.84	185	6.76	0.268	0.0			29.77

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-05	1-20-09	13:0	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Keith Wald

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

RS 10-40

SAMPLING DATA SHEET			
Well ID: <u>MW-2008-06</u>	Screen Interval: <u>17-19</u>	Depth to Water: <u>18.69</u>	GWS QTR <u>I</u>
Project Name: <u>FMI Siemita</u>	Well Diameter: <u>4</u>	Date Measured: <u>1-20-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u></u>	Measured From: <u>TBC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u></u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
PH:	Standard 4.00 = <u>4.0</u> at <u>17.40</u> °C	Turbidity:	NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>99.5</u>
Conductivity:	Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>17.40</u> °C	
Dissolved Oxygen:	Standard <u>9.37 @ 17°</u> mg/L	Reading <u>9.74</u> mg/L at <u>17.40</u> °C	
ORP:	Standard <u>95</u> mV at <u>19</u> °C	Reading <u>78</u> mV at <u>20.65</u> °C	
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)			

WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0903	100	4.16	21.81	109	6.78	0.640	0.0			18.71
0907	100	4.66	22.04	106	6.93	0.667	0.0			18.82
0911	95	0.51	21.97	106	6.86	0.680	0.0			18.92
0918	95	9.02	21.87	124	6.88	0.682	0.8			18.89
0922	95	8.18	21.92	126	6.89	0.680	0.5			18.93
0926	95	7.51	21.82	127	6.91	0.683	0.0			18.93
0930	95	6.90	21.80	128	6.91	0.682	0.0			18.93
0934	95	6.40	21.89	129	6.92	0.680	0.0			19.00
0938	95	5.86	22.04	129	6.92	0.678	0.0			18.98
0942	95	5.33	22.14	130	6.93	0.679	0.0			18.99
0947	95	4.73	22.31	130	6.94	0.677	0.0			19.00
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

↓ Flow

SAMPLE COLLECTION

Sampling Method (√): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-06</u>	<u>1-20-09</u>	<u>0947</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / lcs	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

2

Samplers Signature(s): Ken Wal

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-08</u>	Screen Interval: <u>36.75-40.75</u>	Depth to Water: <u>12.11</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>4</u>	Date Measured: <u>1/23/09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>TOG</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>na</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft.

FIELD INSTRUMENT CALIBRATION

PH: pH: 4.00 = 4.28 at 16.90 Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 129
 Conductivity: Standard 0.471 S/cm at 25 °C Reading 3.5 0.419 S/cm at 16.93 °C
 Dissolved Oxygen: Standard 9.59 mg/L Reading 9.63 mg/L at 16.93 °C
 ORP: Standard 81 mV at 16.85 °C Reading 81 mV at 16.93 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0904	<50	10.48	17.12	186	6.71	0.517	0.0			12.30
0908	<50	10.50	16.56	181	6.58	0.524	0.0			12.36
0912	<50	10.45	16.38	182	6.53	0.524	0.0			12.36
0916	<50	10.43	16.21	182	6.51	0.525	0.0			12.39
<i>Pully Ready</i> <i>1-23-09</i>										
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLER COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-08	1/23/09	0923	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
MW-2008-08	1/23/09	0923	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
MW-2008-08	1/23/09	0923	500 mL	1	None	No	Wet Chem.	ACZ-Raw
MW-2008-08	1/23/09	0923	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
MW-2008-08	1/23/09	0923	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
MW-2008-08	1/23/09	0923	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
MW-2008-08	1/23/09	0923	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
MW-2008-08	1/23/09	0923						
MW-2008-08	1/23/09	0923						

Samplers Signature(s): Pully Ready

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃. Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-08</u>	Screen Interval: <u>36-46</u>	Depth to Water: <u>11.90</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>4</u>	Date Measured: <u>1/22/09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u> </u>	Measured From: <u>To C</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n/a</u>	Well Volume: <u> </u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: <u>pH: 4.00 = 4.19 at 19.25 °C</u>	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>99.8</u>
Conductivity: Standard <u>0.439</u> S/cm at 25 °C	Reading <u>0.455</u> S/cm at <u>19.23 °C</u>
Dissolved Oxygen: Standard <u>9.34</u> mg/L	Reading <u>9.35</u> mg/L at <u>19.23 °C</u>
ORP: Standard <u>102</u> mV at <u>19.25 °C</u>	Reading <u>100</u> mV at <u>19.23 °C</u>
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0855	90	10.09	18.80	86	7.62	0.600	142.0			11.97
0859	90	8.00	20.83	107	6.81	0.480	45.5			12.10
0903	90	6.37	20.41	112	6.65	0.497	44.9			12.20
0907	90									
<i>Worked - Daily Reading 1/22/09 unable to maintain water level</i>										
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
			1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dsivd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dshvd.	ACZ-Green Dot

Samplers Signature(s): Polly Reedy

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

33.13 021

SAMPLING DATA SHEET			
Well ID: <u>MW-2008-09</u>	Screen Interval: <u>15-50</u>	Depth to Water: <u>33.20 33.09</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Siemita</u>	Well Diameter: <u>4</u>	Date Measured: <u>1/22/09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u> </u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n/a</u>	Well Volume: <u> </u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
Ph: <u>4.00 = 4.19 at 19.25 °C</u>	Turbidity: NTU: 0 = Reading <u>0.0</u>	NTU: 100 = Reading <u>99.8</u>	
Conductivity: Standard <u>0.439</u> S/cm at 25 °C	Reading <u>0.455</u> S/cm at <u>19.23 °C</u>		
Dissolved Oxygen: Standard <u>9.34</u> mg/L	Reading <u>9.35</u> mg/L at <u>19.23 °C</u>		
ORP: Standard <u>102</u> mV at <u>19.25 °C</u>	Reading <u>100</u> mV at <u>19.23 °C</u>		
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)			

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0952	100	8.77	19.94	227	4.09	0.535	56.0			33.25
1003	100	7.63	18.75	259	3.84	0.550	45.6			33.31
1007	100	6.21	19.24	264	3.80	0.555	47.0			33.43
1011	100	6.08	19.30	265	3.78	0.616	47.0			33.47
1015	100	5.74	19.05	266	3.77	0.669	44.2			33.51
1019	100	5.44	19.15	266	3.77	1.07	44.7			33.56
1023	100	3.99	19.36	266	3.76	1.37	43.3			33.61
1024	100	3.93	19.47	266	3.76	1.99	48.3			33.72
1053	30	0.55	17.77	262	3.83	0.796	50.6			33.74
1056	30	0.23	17.73	263	3.80	0.628	45.1			33.75
1059	30	6.90	18.07	263	3.78	0.581	45.3			33.76
1102	30	6.31	18.29	263	3.78	0.602	43.3			33.78
1105	30	6.00	18.25	262	3.78	0.980	42.9			33.81
1108	30	5.72	18.29	261	3.78	1.48	41.9			33.82
1111	30	5.45	18.22	260	3.78	2.15	41.8			33.83
1114	30	5.47	18.01	260	3.78	2.15	41.8			33.84
1117	30	5.40	18.13	259	3.77	1.73	41.0			33.86
<i>OR Reading 1-22/09</i>										

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-09	1/22/09	1117	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
MW-2008-09	1/22/09	1117	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
MW-2008-09	1/22/09	1117	500 mL	1	None	No	Wet Chem.	ACZ-Raw
MW-2008-09	1/22/09	1117	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
MW-2008-09	1/22/09	1117	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
MW-2008-09	1/22/09	1117	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
MW-2008-09	1/22/09	1117	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Pully Ready

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-11</u>	Screen Interval: <u>27-52</u>	Depth to Water: <u>16.06'</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>1-28-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u>54.0</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N</u>	Well Volume: <u> </u>	
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft			

FIELD INSTRUMENT CALIBRATION

Ph: <u>pH: 4.00 = 3.97 at 7.47 °C</u>	Turbidity: <u>NTU: 0 = Reading 0.0 NTU: 100 = Reading n/a</u>
Conductivity: <u>Standard 0.449 S/cm at 25 °C</u>	<u>Reading 0.457 S/cm at 7.47 °C</u>
Dissolved Oxygen: <u>Standard 10.52 mg/L</u>	<u>Reading 12.05 mg/L at 7.47 °C</u>
ORP: <u>Standard 98 mV at 25 °C</u>	<u>Reading 150 mV at 8.0 °C</u>
Date / Time of Calibration(s): <u>(Horiba U22 XD sn: 8153008)</u>	

Begin Purge 920

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0930		10.19	13.67	232	5.73	0.276	0.0			16.12
0934		0.85	17.31	199	6.13	9.99	0.0			16.23
0938		3.14	18.51	184	6.22	0.90	0.0			16.22
0942		0.50	17.69	180	6.22	0.471	0.0			16.20
0946		0.32	18.18	178	6.20	0.409	0.0			16.20
0954		0.02	18.61	174	6.19	0.365	0.0			16.20
0958		0.0	18.42	173	6.19	0.365	0.0			16.20
1002		0.0	18.60	173	6.19	0.365	0.0			16.20

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-11</u>	<u>1-28-09</u>	<u>1005</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Kenz Wald

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-12</u>	Screen Interval: <u>100-155</u>	Depth to Water: <u>75.32</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>40"</u>	Date Measured: <u>1-29-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>155</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 19.89 °C Turbidity: NTU: 0 = Reading 0.8 NTU: 100 = Reading _____

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 19.89 °C

Dissolved Oxygen: Standard 10.52 mg/L Reading 9.35 mg/L at 19.89 °C

ORP: Standard 95 mV at 25 °C Reading 117 mV at 19.95 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1020	650	9.45	11.98	178	8.09	0.302	7.6	n/a	n/a	75.32
1023	ml/min	8.05	12.48	178	7.83	0.497	8.0	n/a	n/a	75.32
1026		6.19	13.06	171	7.58	0.377	6.4	n/a	n/a	75.32
1029		5.63	12.97	162	7.46	0.355	5.6	n/a	n/a	75.35
1034		5.83	12.86	160	7.40	0.315	5.6	n/a	n/a	75.35
1038		5.76	12.44	153	7.31	0.313	5.1	n/a	n/a	75.35
(A diagonal line is drawn across the remaining empty rows of this table.)										

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-12	1-29-09	1045	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Ka [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MLW-2008-14</u>	Screen Interval:	Depth to Water: <u>79.86'</u>	GWS QTR <u>1</u> Page <u>1</u> of <u> </u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>4</u>	Date Measured: <u>2-26-08</u>	
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>TDC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N/O</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.68 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

pH: $pH: 4.00 = \underline{4.00}$ at $\underline{24.37}^{\circ}C$ Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading ✓
 Conductivity: Standard 0.449 S/cm at $25^{\circ}C$ Reading 0.440 S/cm at $\underline{24.37}^{\circ}C$
 Dissolved Oxygen: Standard 8.25 @ 24° mg/L Reading 7.85 mg/L at $\underline{24.37}^{\circ}C$
 ORP: Standard 89 mV at $\underline{25}^{\circ}C$ Reading 96 mV at $\underline{26.25}^{\circ}C$
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	ENORP (mV)	pH	Spec. Cond S/M (6cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1420</u>	<u>N/A</u>	<u>3.18</u>	<u>23.10</u>	<u>232</u>	<u>7.58</u>	<u>0.92</u>	<u>137.0</u>	<u>N/A</u>	<u>-</u>	<u>79.86</u>
<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> <p>Well Bailed Dry ~ 1.5 gallons. Placed in bucket for sample well not purged / SAP Bailed several times to get sample volume</p> </div>										
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MLW-2008-14</u>	<u>2-26-08</u>	<u>1420</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, Ibrat</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signatures]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfide
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-15</u>	Screen Interval:	Depth to Water: <u>51.86</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>2-2-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u>150</u>	Measured From: <u>706</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH 4.00 = 4.0 at 12.24 °C Turbidity: NTU: 0 = Reading 0.6 NTU: 100 = Reading

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.451 S/cm at 12.24 °C

Dissolved Oxygen: Standard 10.52 mg/L Reading 19.76 mg/L at 12.24 °C

ORP: Standard 95 mV at 20 °C Reading 112 mV at 12.98 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1057		4.54	20.89	145	6.94	.150	31.7			52.11
1102		2.57	21.55	149	6.82	.150	46.5			52.19
1105		2.26	21.65	148	6.76	.150	40.6			52.22
1108		2.00	21.75	148	6.71	.151	40.7			52.22
1111		2.01	21.71	148	6.69	.151	40.0			52.22
1114		1.91	21.89	149	6.68	.150	38.6			52.22
/										
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-15</u>	<u>2-2-09</u>	<u>1120</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
<u>MW-2008-15D</u>	<u>2-2-09</u>	<u>1125</u>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitratas	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Ken Walt

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

80 PSI
 petill ~ 58
 discharge 2
 Flowrate under 50 mL/min

SAMPLING DATA SHEET

Well ID: <u>TW-2008-09</u>	Screen Interval: <u>4-9</u>	Depth to Water: <u>7.29</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>1.04</u>	Date Measured: <u>1-27-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u>9.5</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.11 at 9.33 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.450 S/cm at 9.33 °C
 Dissolved Oxygen: Standard 10.52 mg/L Reading 11.74 mg/L at 9.33 °C
 ORP: Standard 89 mV at 25 °C Reading 128 mV at 9.64 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	ENORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1200</u>		<u>6.62</u>	<u>16.29</u>	<u>189</u>	<u>4.13</u>	<u>1.70</u>	<u>-5.0</u>			<u>7.29</u>

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump X Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>TW-2008-09</u>	<u>1-27-09</u>	<u>1200</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): *Ken West*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>TW-2008-11</u>	Screen Interval:	Depth to Water: <u>9.11</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Siemita</u>	Well Diameter: <u>1.0"</u>	Date Measured: <u>1-26-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u>14.88</u>	Measured From: <u>Toe</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>A</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 13.13 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading n/a

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.450 S/cm at 13.13 °C

Dissolved Oxygen: Standard 4.5 mg/L Reading 10.42 mg/L at 13.13 °C

ORP: Standard 98 mV at 25 °C Reading 97 mV at 13.13 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EHORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1500</u>		<u>10.31</u>	<u>20.03</u>	<u>179</u>	<u>3.94</u>	<u>1.55</u>	<u>6.0</u>			<u>9.11</u>
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)										

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailee Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>TW-2008-11</u>	<u>1-26-09</u>	<u>1500</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): *K. M. ...*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>TW-2008-12</u>	Screen Interval: <u>4-9</u>	Depth to Water: <u>10.71</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>1</u>	Date Measured: <u>1/23/09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>11.44</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

READING INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.28 at 16.90°C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 129

Conductivity: Standard 0.471 S/cm at 25 °C Reading 0.049 S/cm at 16.93 °C

Dissolved Oxygen: Standard 9.59 mg/L Reading 9.63 mg/L at 16.93 °C

ORP: Standard 81 mV at 16.85°C Reading 81 mV at 16.83 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	ENORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0952</u>		<u>9.56</u>	<u>16.65</u>	<u>322</u>	<u>4.13</u>	<u>0.760</u>	<u>41.4</u>			
<p><i>Dully Ready</i></p> <p><i>1/23/09</i></p>										
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>AAW TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>						
<u>TW-2008-12</u>	<u>1/23/09</u>	<u>0952</u>						

Samplers Signature(s): Dully Ready

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: TW-2008-13	Screen Interval: 10-20	Depth to Water: 12.31	GWS QTR 1
Project Name: FMI Sierrita	Well Diameter: 1	Date Measured: 1/22/09	Page 1 of 1
Project Number: 24096838	Total Well Depth: 	Measured From: TOC	
Task Code: 10015	Dedicated Pump: na	Well Volume: 	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.19** at **19.25** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **99.8**
 Conductivity: Standard **0.439** S/cm at 25 °C Reading **0.455** S/cm at **19.23** °C
 Dissolved Oxygen: Standard **9.34** mg/L Reading **9.35** mg/L at **19.23** °C
 ORP: Standard **102** mV at **19.25** °C Reading **100** mV at **19.23** °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1415		9.00	20.32	-7	6.49	0.457	-5.0			
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)										

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Beller Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
TW-2008-13	1/22/09	1415	1 gal	1	HNO₃	Yes	Radiochemistry	Paragon
TW-2008-13	1/22/09	1415	1 gal	1	HNO₃	No	Radiochemistry	Paragon
TW-2008-13	1/22/09	1415	500 mL	1	None	No	Wet Chem.	ACZ-Raw
TW-2008-13	1/22/09	1415	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
TW-2008-13	1/22/09	1415	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
TW-2008-13	1/22/09	1415	250 mL	1	H₂SO₄/Ice	No	Nitrates	ACZ-Yellow Dot
TW-2008-13	1/22/09	1415	250 mL	1	HNO₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): **P. Muly Ready**

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>ISW-2</u>	Screen Interval:	Depth to Water: <u>15.94</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-9-08</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>95</u>	Measured From: <u>Soundings Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>51.1</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 16.94 °C Turbidity: NTU: 0 = Reading 2.0 NTU: 100 = Reading 97.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 16.94 °C
 Dissolved Oxygen: Standard 8.52 mg/L Reading 9.42 mg/L at 17.48 °C
 ORP: Standard 101 mV at 15 °C Reading 98 mV at 16.73 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-9-09 0707 1420 Pump On

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1422	9	8.83	23.29	-69	6.63	1.1	258.0	18	0.35	20.12
1425	9	7.32	23.19	-176	7.13	1.0	169.0	45	0.88	30.06
1428	9	4.01	23.25	-207	7.18	1.0	171.0	72	1.40	41.49
1431	9	3.33	23.43	-201	7.15	1.0	210.0	99	1.93	57.33
1434	9	2.88	23.67	-173	7.04	1.0	695.0	126	2.46	72.22
1437	9	2.49	23.72	-186	7.01	1.0	7100	153	2.99	74.15
1437	Well Dry									
1120	-	9.2	21.11	-31	6.77	0.92	738	-	-	15.91

1-12-09

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
BW-2	1-12-09	1120	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Korky Vault & Rilly Darris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TOS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃. Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>BW-3</u>	Screen Interval:	Depth to Water: <u>25-90</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>Soundin Tube</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>1-6-09</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume <u>41.5</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 12.62 Turbidity: NTU: 0 = Reading 2.0 NTU: 100 = Reading
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 12.62 °C
 Dissolved Oxygen: Standard 8.52 mg/L Reading 8.35 mg/L at 12.62 °C
 ORP: Standard 107 mV at 15 °C Reading 112 mV at 12.79 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-6-09 1025 begin pump 1207

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1207</u>	<u>9 gpm</u>	<u>6.89</u>	<u>21.60</u>	<u>-174</u>	<u>7.37</u>	<u>0.42</u>	<u>478.0</u>	-	-	<u>25.90</u>
<u>1209</u>	" "	<u>6.49</u>	<u>22.36</u>	<u>-218</u>	<u>7.63</u>	<u>0.41</u>	<u>6.1</u>	-	-	<u>49.11</u>
<u>1211</u>	" "	<u>6.41</u>	<u>22.26</u>	<u>-219</u>	<u>7.69</u>	<u>0.41</u>	<u>8.5</u>	-	-	<u>61.29</u>
<u>1213</u>	" "	<u>6.32</u>	<u>21.98</u>	<u>-213</u>	<u>7.69</u>	<u>0.41</u>	<u>22.3</u>	-	-	<u>74.45</u>
<u>1214</u>	<u>DRY</u>	-	-	-	-	-	-	<u>63</u>	<u>1.51</u>	<u>DRY</u>
<u>1115</u>	"	<u>7.59</u>	<u>20.75</u>	<u>-76</u>	<u>7.13</u>	<u>0.41</u>	<u>15.4</u>	-	-	<u>29.30</u>

1-8-09

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>BW-3</u>	<u>1-8-09</u>	<u>1115</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Rent Land & Billy Morris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>BW-4</u>	Screen Interval:	Depth to Water: <u>18.20</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>2</u>	Date Measured: <u>1-6-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>3.53 of 1.17 Vol</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 12.62 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading ✓

Conductivity: Standard 2.449 S/cm at 25 °C Reading 0.45 S/cm at 12.62 °C

Dissolved Oxygen: Standard 8.52 mg/L Reading 8.35 mg/L at 12.62 °C

ORP: Standard 101 mV at 15 °C Reading 112 mV at 12.79 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-6-09 @ 1025

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1234</u>	<u>NA</u>	<u>6.29</u>	<u>22.86</u>	<u>36</u>	<u>6.63</u>	<u>0.41</u>	<u>0.0</u>	<u>-</u>	<u>-</u>	<u>18.20</u>
<u>1237</u>	<u>NA</u>	<u>6.06</u>	<u>22.61</u>	<u>30</u>	<u>6.78</u>	<u>1</u>	<u>11.2</u>	<u>0.5 gal</u>	<u>0.42</u>	<u>DRY</u>
<u>1237</u>	<u>Boiled</u>	<u>DRY</u>								
<u>1410</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>18.10</u>
<u>1417</u>	<u>Bailer</u>	<u>7.48</u>	<u>20.51</u>	<u>118</u>	<u>6.90</u>	<u>0.46</u>	<u>32.1</u>	<u>-</u>	<u>-</u>	<u>-</u>
<u>Complete Filling Baitles 1-13-09 at 1625 hrs</u>										

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump ✓ Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>BW-4</u>	<u>1-7-09</u>	<u>1417</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature] & [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

Well Purging via Pumping Field Data Sheet

Site Number MH-14
Sample Date 2/13/2009
Sample Time 09:24

Well Data	
WL Measuring Point Elevation, ft	3,150.74
Well Diameter, ft	6.0
Well Depth, ft	501
Depth to Water Prior to Purging, ft	425.90
Pump Depth, ft	

Pumping Data	
Pumping Start Time	09:00
3 Casing Volumes, gal	330.90
Actual Volume Pumped, gal	528.00
Comments	

Field Data									
Time	Flow Rate, gal/min	Incremental Volume Pumped, gal	Depth To Water, ft	pH, units	Water Temperature C	Conductivity umhos	DO, %	Turbidity NTU	ORP, mv
09:00	22.00	0.00	425.90	5.98	23.14	2,850.00	0.00	155.00	-47.00
09:05	22.00	110.00	430.62	6.60	26.81	2,870.00	0.00	350.00	74.00
09:10	22.00	110.00	430.61	6.62	26.20	3,290.00	0.00	-5.00	94.00
09:16	22.00	132.00	430.30	6.57	27.43	3,370.00	0.00	-5.00	101.00
09:21	22.00	110.00	430.21	6.60	27.39	3,320.00	0.00	-5.00	105.00
09:24	22.00	66.00	430.28	6.65	26.79	3,680.00	0.00	-5.00	111.00

SAMPLING DATA SHEET

Well ID: <u>MH-15W</u>	Screen Interval:	Depth to Water: <u>392.55</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>1-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume <u>107.8</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 18.92 °C Turbidity: NTU: 0 = Reading 0.2 NTU: 100 = Reading 99.6
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 18.92 °C
 Dissolved Oxygen: Standard 8.52 mg/L Reading 8.41 mg/L at 18.92 °C
 ORP: Standard 101 mV at 15 °C Reading 103 mV at 18.03 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-7-09 @ 0715 11/17 Pump On

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1110	66 gpm	2.09	24.35	-134	7.46	0.34	71.2	18	0.16	394.88
1115	" "	2.75	23.45	-151	7.42	0.34	69.1	48	0.44	395.34
1130	" "	1.39	26.67	-126	7.28	0.34	550.0	138	1.28	398.00
1145	" "	1.16	23.53	-98	7.17	0.34	148.0	228	2.11	398.30
1201	" "	4.31	23.65	-83	7.20	0.35	126.0	318	2.95	398.41
1205	" "	2.47	23.56	-79	7.14	0.35	124.0	342	3.17	398.50
1209	" "	1.69	23.51	-75	7.17	0.35	123.0	366	3.39	399.97
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)										

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Beller Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-15W</u>	<u>1-7-09</u>	<u>12 09</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
			40 mL VOA's	3	HeL	no		

Samplers Signature(s): [Signature] & Billy Darris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TOS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-16W</u>	Screen Interval:	Depth to Water: <u>359.71</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-9-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>Soundings Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume: <u>102</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 16.94°C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 97.4

Conductivity: Standard 0.449 S/cm at 25°C Reading 0.45 S/cm at 16.94°C

Dissolved Oxygen: Standard 8.52 mg/L Reading 9.42 mg/L at 17.48°C

ORP: Standard 101 mV at 15°C Reading 98 mV at 16.73°C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-9-09 @ 0707 Pump On: 1027

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1022	-	-	-	-	-	-	-	-	-	359.71
1030	12 gpm	7.74	25.93	153	7.54	0.12	29.2	36	0.35	361.21
1035	" "	7.92	27.61	61	7.37	0.27	216.0	96	0.94	360.81
1040	8	8.30	27.38	114	7.40	0.48	156.0	136	1.33	360.75
1045	8	7.85	27.97	72	7.41	1.5	120.0	176	1.72	360.78
1050	8	8.06	28.12	52	7.33	0.86	92.0	216	2.11	360.85
1057	8	8.37	28.26	119	7.36	1.8	72.9	256	2.50	360.73
1102	8	7.81	28.37	150	7.44	3.3	181.0	296	2.90	-
1106	8	7.47	28.20	172	7.42	4.5	94.9	328	3.21	360.54
1110	8	7.85	28.20	182	7.33	4.6	110.0	328	-	-

See Logbook Pump Off 1102

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-16W</u>	<u>1-9-09</u>	<u>110</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
			<u>30m LVOAS</u>	<u>3</u>	<u>HCL</u>	<u>no</u>		

Samplers Signature(s): [Signature] & Ailly Dorris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET			
Well ID: <u>MH-17</u>	Screen Interval:	Depth to Water: <u>54.18</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-12-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>108</u>	Measured From: <u>Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>105</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

READING INSTRUMENT CALIBRATION			
Ph: pH: 4.00= _____ at _____ °C	Turbidity: NTU: 0 = Reading _____	NTU: 100 = Reading _____	
Conductivity: Standard _____ S/cm at 25 °C	Reading _____ S/cm at _____ °C		
Dissolved Oxygen: Standard _____ mg/L	Reading _____ mg/L at _____ °C		
ORP: Standard _____ mV at _____ °C	Reading _____ mV at _____ °C		
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)			

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	ENORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1245	7	9.9	22.35	117	6.85	1.1	3.1			54.18
1248	7	9.5	22.37	117	6.85	0.22	4.7			67.85
1251	7	8.7	22.44	103	6.85	0.17	0.8			80.18
1254	7	8.0	22.53	90	6.87	0.17	0.6			95.10
1257	7	7.3	22.66	71	6.88	0.17	11.3			106.48
1259	WELL DRY									
1-13-09 1440	-	10.3	19.93	251	6.96	0.17	4.1	-	-	58.22

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-17</u>	<u>1-13-09</u>	<u>1440</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
<u>Duplicate 1309A</u>			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Billy Norris + Karky Vault

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

FMI Lo Book

SAMPLING DATA SHEET			
Well ID: <u>MH-18</u>	Screen Interval:	Depth to Water: <u>63.30</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-12-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>Sampling Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume <u>96.2</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
Ph: pH: 4.00= _____ at _____ °C	Turbidity: NTU: 0 = Reading _____ NTU: 100 = Reading _____		
Conductivity: Standard _____ S/cm at 25 °C	Reading _____ S/cm at _____ °C		
Dissolved Oxygen: Standard _____ mg/L	Reading _____ mg/L at _____ °C		
ORP: Standard _____ mV at _____ °C	Reading _____ mV at _____ °C		
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1156 Pump On			

WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1157	8	11.0	22.58	132	7.06	0.17	8.8			63.30
1200	8	10.0	22.84	86	7.12	0.21	11.3			84.10
1203	8	9.8	22.95	55	7.16	0.22	6.4			97.78
1206	8	9.2	22.97	-32	7.17	0.23	5.5			112.50
1210	8	8.5	23.07	-11	7.19	0.22	2.4			125.52
1215	8	7.6	23.18	5	7.21	0.22	1.1			143.28
1220	8	6.7	23.30	5	7.22	0.21	0.8			158.37
1221	WELL DRY -									
1512	-	8.78	23.28	255	7.14	0.17	24.5			63.42
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-18	1-13-09	1512	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Billy Dorrice & Rocky Vault

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃. Cations: calcium, magnesium, potassium, and sodium

1-13-09

MH-20 1-13-09 BD/KV/RS
 SWL-73.99
 TD = 180

Started pump at 1310 at 110 LPM
 pH T K DO ORP Turb W/L

8.02	21.96	10000	.00059	217	0.0	14.06
8.05	21.55	9200	.00057	219	0.0	14.12
8.06	21.47	7300	.00056	220	0.0	14.16
8.07	21.30	7300	.00056	221	0.0	14.21
8.07	21.32	6300	.00058	223	0.0	14.26
8.08	21.24	6400	.00059	223	0.0	14.29

Collected Ambient + 2 RAD KRU
 at 1340 No sample taken.
 mp needs to be set within
 reened area, roughly
 50'



37

MH-19 1-14-09 BD/KV
 SWL-8.27
 TD-70
 1 CV-40.3
 3 CV-120.89

Started pump at 1342 at 9 gpm
 pH T K DO ORP Turb W/L

1343	6.65	23.58	3400	100088	139	1.21	9.27
1346	6.79	23.55	3700	100070	141	14.3	10.13
1349	6.84	23.67	3300	100074	149	2.8	10.40
1352	6.86	23.71	2200	100084	156	4.7	10.53
1355	6.89	23.78	2100	100081	162	2.7	10.70
1358	6.89	23.94	2200	100086	163	2.7	10.75

Collected Ambient + 2 Radchem
 at 1358

MO-2007-82 1-15-09 BD/KV/BM
 SWL = 579.10
 TD = 685.0
 1 CV = 108
 3 CV = 324

Started pump at 10:40 at 13 gpm
 pH T K W/L GAL

1040	6.97	24.27	1200	579.10	0
1048	7.19	29.89	1200	581.20	104
1056	7.20	30.60	1200	581.09	208
1107	7.27	30.60	1200	581.13	325

Collected 504 Sample at 1107
 monitor tripped off line @ 1058 on at
 11:00

SAMPLING DATA SHEET

Well ID: <u>MH-20</u>	Screen Interval: <u>120-176</u>	Depth to Water: <u>15.11</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>4.0"</u>	Date Measured: <u>1-26-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u>180</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N</u>	Well Volume <u>1CV = 107.6 3CV = 322.9</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 7.0 at 13.13 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading N/A

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.450 S/cm at 13.13 °C

Dissolved Oxygen: Standard 9.5 mg/L Reading 10.42 mg/L at 13.13 °C

ORP: Standard 98 mV at 25 °C Reading 97 mV at 13.13 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate SPM	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0920	0.75	9.39	18.31	84	6.57	0.196	145.0	-	-	23.7
0956	0.75	9.68	18.83	137	6.87	0.173	0.0	-	-	27.15
1001	1.25	8.88	21.09	152	6.93	0.169	176.0	-	-	31.13
1011	1.50	8.80	21.84	161	6.97	0.160	133.0	-	-	38.05
1021	1.50	7.70	21.89	166	7.13	0.169	180.0	37.5	0.35	46.38
1031	1.50	9.10	22.28	182	6.97	0.168	38.6			57.51
1051	1.50	8.42	21.89	200	7.30	0.167	65.2			73.15
1111	1.50	9.08	22.13	212	7.16	0.170	54.4			91.10
1131	1.50	7.79	22.26	228	7.23	0.168	48.7	142.5	1.3	109.35
1151	1.50	8.63	22.20	243	7.32	0.165	96.3			127.23
1211	1.50	9.34	22.72	256	7.28	0.165	306.0			142.51
1231	1.50	9.48	22.21	265	7.32	0.168	491.0			158.10
1240	1.5	9.05	20.79	267	7.33	0.165	411.0			163.63
1322	1.5	9.70	20.04	275	7.45	0.169	410.0			161.42
1330	1.5	9.90	20.26	283	7.36	0.163	376.0			163.0
0758	1.5	12.75	8.01	58	6.75	0.8 mS/cm	-5.0			155.95

delay *
delay *
restart dry
return 1-29-09

38.50

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-20	1-29-09		1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dstvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dstvd.	ACZ-Green Dot

Samplers Signature(s): Ken Wal

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MA-20</u>	Screen Interval:	Depth to Water: <u>13.99</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>1-13-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>180</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

PH: pH: 4.00= _____ at _____ °C Turbidity: NTU: 0 = Reading _____ NTU: 100 = Reading _____
Conductivity: Standard _____ S/cm at 25 °C Reading _____ S/cm at _____ °C
Dissolved Oxygen: Standard _____ mg/L Reading _____ mg/L at _____ °C By FMI
ORP: Standard _____ mV at _____ °C Reading _____ mV at _____ °C
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate (ml/min)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1315	110	7.7	22.11	216	7.94	0.35	0.0			14.82
1319	110	5.9	21.96	217	8.05	1.0	0.0			14.06
1323	110	5.7	21.55	219	8.05	0.92	0.0			14.12
1327	110	5.6	21.47	220	8.06	0.73	0.0			14.16
1331	110	5.6	21.30	221	8.07	0.73	0.0			14.21
1336	110	5.8	21.32	223	8.07	0.63	0.0			14.26
1340		5.9	21.24	223	8.08	0.64	0.0			14.29

[Handwritten Signature]

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
		<u>1340</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-20</u>	Screen Interval: <u>120-176</u>	Depth to Water: <u>14.42</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4.0 in.</u>	Date Measured: <u>1-19-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096838</u>	Total Well Depth: <u>18-176</u>	Measured From: <u>TOC plastic</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 18.80 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 99.8
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 18.80 °C
 Dissolved Oxygen: Standard 9.0 mg/L Reading 8.87 mg/L at 18.76 °C
 ORP: Standard 95 mV at 19.0 °C Reading 83 mV at 18.93 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1432	225	10.30	23.53	134	7.78	0.18	2.1			14.22
1435	225	8.56	23.46	129	7.68	0.18	3.3			14.42
1438	225	8.12	23.62	126	7.66	0.18	7.6			14.52
1441	225	7.89	23.60	124	7.67	0.18	4.5			14.58
1444	225	7.62	23.53	121	7.66	0.17	7.0			14.66
1447	225	7.66 ³⁵	23.64	121	7.66	0.18	5.0			14.72
1450	25	7.12	23.74	120	7.66	0.18	3.8			14.75
1453	25	6.92	23.85	120	7.66	0.18	3.5			14.78
1456	20	6.72	23.98	120	7.66	0.18	4.2			14.81
Unavailable to meet Low Flow SAP - 225										

decreased pump flow

Re Sample Bennett

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-20	1-29-09	0758	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): Ku Wal

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-21</u>	Screen Interval:	Depth to Water: <u>34.10</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-6-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>Flowing Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>28.7</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 16.51 °C Turbidity: NTU: 0 = Reading 9.0 NTU: 100 = Reading ✓

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.48 S/cm at 16.51 °C

Dissolved Oxygen: Standard 8.52 mg/L Reading 10.53 mg/L at 16.51 °C

ORP: Standard 101 mV at 15 °C Reading 115 mV at 16.51 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-6-09 08:25 0924 Begin Pumping

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0924</u>	<u>36 gpm</u>	<u>6.61</u>	<u>22.44</u>	<u>6</u>	<u>7.05</u>	<u>0.28</u>	<u>23.8</u>			<u>34.10</u>
<u>0926</u>	<u>" "</u>	<u>7.79</u>	<u>22.64</u>	<u>8</u>	<u>6.73</u>	<u>0.28</u>	<u>10.8</u>			<u>51.80</u>
<u>0928</u>	<u>" "</u>	<u>7.36</u>	<u>22.71</u>	<u>8</u>	<u>6.73</u>	<u>0.29</u>	<u>10.9</u>			<u>59.90</u>
<u>0930</u>	<u>" "</u>	<u>6.80</u>	<u>22.73</u>	<u>17</u>	<u>6.74</u>	<u>0.29</u>	<u>11.7</u>			<u>70.30</u>
<u>0931</u>	<u>well</u>	<u>DRY</u>						<u>56</u>	<u>1.95</u>	<u>DRY</u>
<u>1245</u>										<u>34.60</u>
<u>1254</u>		<u>2.40</u>	<u>22.70</u>	<u>63</u>	<u>6.92</u>	<u>0.32</u>	<u>56.1</u>			
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

1-7-09

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-21</u>	<u>1-7-09</u>	<u>1254</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
<u>010709A</u>			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
			<u>40 mL VOA</u>	<u>3</u>				<u>Dep Full Set</u>

Samplers Signature(s): [Signature] Billy Dorn's

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

Unable to get DTW, blowing up

SAMPLING DATA SHEET			
Well ID: <u>MH-22</u>	Screen Interval:	Depth to Water: <u>?</u> ↓	GWS QTR <u>1</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>1-8-09</u>	Page <u>1</u> of <u> </u>
Project Number: 24096838	Total Well Depth:	Measured From: <u>Sounding Tube</u>	
Task Code: 10015	Dedicated Pump:	Well Volume <u>~ 8</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
Ph: pH: 4.00 = <u>4.0</u> at <u>19.46</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u>	NTU: 100 = Reading <u>98.4</u>	
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.45</u> S/cm at <u>19.46</u> °C		
Dissolved Oxygen: Standard <u>8.52</u> mg/L	Reading <u>8.41</u> mg/L at <u>19.48</u> °C		
ORP: Standard <u>101</u> mV at <u>15</u> °C	Reading <u>104</u> mV at <u>16.09</u> °C		
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) <u>1-8-09 @ 1038</u> Pump On			

WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spac. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1200</u>	<u>TURNED PUMP ON - NO WATER - WILL TRY ON PUMP BAD</u>									
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION										
Sampling Method (✓): <input type="checkbox"/> Dedicated Pump <input type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailler <input type="checkbox"/> Low Flow/Micropurge <input type="checkbox"/> Bennett										
Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments		
			1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon		
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon		
			500 mL	1	None	No	Wet Chem.	ACZ-Raw		
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot		
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot		
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot		
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot		

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-23</u>	Screen Interval:	Depth to Water: <u>20.40</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-6-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>78</u>	Measured From: <u>Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>37.6</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 12.62 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading ✓

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 12.62 °C

Dissolved Oxygen: Standard 8.52 mg/L Reading 8.35 mg/L at 12.62 °C

ORP: Standard 101 mV at 15 °C Reading 112 mV at 12.79 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-6-09 1025

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1252	8 gpm	5.88	23.00	-10	6.91	0.40	30.0	-	-	20.40
1254	" "	5.33	23.29	-10	6.81	0.41	7.9	-	-	33.60
1256	" "	4.57	23.33	-2	6.82	0.41	0.0	-	-	47.35
1258	" "	4.13	23.53	-36	6.90	0.41	6.2	-	-	59.65
1300	" "	3.66	23.65	-66	6.79	0.41	24.1	-	-	69.92
1301	WELL DRY							72	1.91	DRY
1306	-	7.95	23.08	-47	6.89	0.42	53.7	-	-	21.33

1-8-09

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-23	1-8-09	1136	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
			40 mL Vials	3	HCl	NO		

Samplers Signature(s): [Signature] & Billy Darris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-27</u>	Screen Interval:	Depth to Water: <u>14.97</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>1-9-09</u>	Page <u>1</u> of <u> </u>
Project Number: <u>24096638</u>	Total Well Depth:	Measured From: <u>Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>42.5</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 9.99 at 16.94 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 97.4

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 16.94 °C

Dissolved Oxygen: Standard 8.52 mg/L Reading 9.42 mg/L at 17.49 °C

ORP: Standard 101 mV at 15 °C Reading 98 mV at 16.73 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-9-09 0707 1348 Pump on

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1350	8 gpm	7.39	23.88	-3	6.93	0.79	107.0	16	0.37	26.20
1352	8	6.03	23.84	-28	6.95	0.50	56.7	32	0.75	36.65
1354	8	5.21	23.91	-41	6.96	0.49	44.6	48	1.12	48.35
1356	8	4.48	23.95	-51	7.00	0.49	44.4	64	1.50	63.18
1358	8	3.76	23.97	-73	7.05	0.49	48.2	80	1.88	75.00
1400	8	3.53	23.97	-77	7.06	0.49	85.8	96	2.25	80.70
1400	<u>Well is Purge Dry</u>									
0902	-	10.0	16.19	208	6.85	0.45	315.0	-	-	77.68

1-12-09

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-27</u>	<u>1-12-09</u>	<u>0902</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
			<u>40 mL VBS</u>	<u>3</u>				

Samplers Signature(s): Kock, Vault & Billy Davis

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-28</u>	Screen Interval:	Depth to Water: <u>402.00</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume: <u>59</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 18.92 °C Turbidity: NTU: 0 = Reading 20 NTU: 100 = Reading 99.6
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 18.92 °C
 Dissolved Oxygen: Standard 8.52 mg/L Reading 8.41 mg/L at 18.92 °C
 ORP: Standard 101 mV at 15 °C Reading 103 mV at 18.03 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-7-09 @ 0715 1018 Pump On

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water	
1022	20 gpm	3.88	24.92	12	7.11	0.37	21000	80	1.35	425.95	
1025	"	7.30	25.91	42	7.03	0.36	830	160	2.71	426.15	
1030	"	10.23	25.66	53	7.05	0.36	536	240	4.06	426.15	
-	Pump Shut at 1030 - check connections					-	-	-	-	-	-
1037	Pump on	-	-	-	-	-	-	-	-	-	
1038	20	9.11	25.92	56	7.03	0.36	71000	320	5.42	-	
1040	Collect sample - must collect between 3 & 5 well vols by FMI reqmts.					-	-	-	-	-	
Stabilization	(+- 10%)	(+- 1 deg.)	(+- 10 mV)	(+- 1)	(+- 5%)	(+- 10%)			(+- 0.3 ft.)		

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-28</u>	<u>1-7-09</u>	<u>1340</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon ✓
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon ✓
			500 mL	1	None	No	Wet Chem.	ACZ-Raw ✓
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot ✓
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot ✓
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot ✓
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot ✓
			40 mL WBA	3	HCL	NO		

Samplers Signature(s): [Signature] & Billy Darris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

17 + Collect Sample Between 85 Well Vols.

SAMPLING DATA SHEET

Well ID: <u>MH-29</u>	Screen Interval:	Depth to Water: <u>380.25</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>1-9-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096836</u>	Total Well Depth:	Measured From: <u>Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>68</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 16.94 °C Turbidity: NTU: 0 = Reading 0.45 NTU: 100 = Reading 97.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 16.94 °C
 Dissolved Oxygen: Standard 8.52 mg/L Reading 9.42 mg/L at 17.48 °C
 ORP: Standard 98101 mV at 16.73 °C Reading 98 mV at 16.73 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-9-09 8:27:07 Pump ON 0936
0938

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0940	156 AM	6.99	24.12	15	7.24	0.45	877.0	40	0.64	380.95
0945	" "	6.98	24.20	48	7.08	0.73	356.0	80	1.29	380.89
0950	" "	0.02	25.67	21	7.04	0.56	96.0	120	1.93	380.89
0955	" "	0.56	25.68	23	7.04	0.75	34.2	160	2.58	380.93
0958	" "	0.86	25.72	24	7.05	0.86	17.3	190	3.06	380.98
1001	" "	0.83	25.67	25	7.03	0.92	9.4	220	3.54	380.95

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Beller Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-29</u>	<u>1-9-09</u>	<u>1001</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
			40mL LDAs	3	HCL	NO		

Samplers Signature(s): [Signature] & Billy Dorris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-30	Screen Interval:	Depth to Water: 416.37	GWS QTR: 1
Project Name: FMI Sterita	Well Diameter:	Date Measured: 1-7-09	Page 1 of 1
Project Number: 24096838	Total Well Depth:	Measured From: Standing Tub	
Task Code: 10015	Dedicated Pump:	Well Volume: 121	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= **4.00** at **18.92** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **99.6**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **18.92** °C
 Dissolved Oxygen: Standard **8.52** mg/L Reading **8.41** mg/L at **18.92** °C
 ORP: Standard **101** mV at **15** °C Reading **103** mV at **18.02** °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) **1-7-09 @ 0715** **0807 Pumping**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0810	15 gpm	3.50	29.06	-22	6.77	0.35	524.0	45	0.37	462.95
0815	15 gpm	2.87	28.99	52	6.92	0.35	98.2	120	0.99	488.75
0831	12	4.35	29.19	94	7.0	0.36	178	132	1.09	422.0
0835	8 gpm	3.48	28.41	101	7.09	0.36	45.7	180	1.48	462.24
0840	" "	3.44	27.88	106	7.11	0.36	68.2	220	1.81	457.60
0845	" "	3.33	28.10	116	7.10	0.36	40.2	260	2.14	452.00
0850	" "	3.36	28.15	121	7.11	0.36	25.2	300	2.47	445.38
0855	" "	3.33	28.09	128	7.12	0.36	48.4	340	2.80	440.18
0900	" "	2.12	28.02	130	7.12	0.36	30.8	380	3.14	435.96

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-30	1-7-09	0900	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon ✓
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon ✓
			500 mL	1	None	No	Wet Chem.	ACZ-Raw ✓
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot ✓
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot ✓
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot ✓
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot ✓

Samplers Signature(s): *[Signature]* & *Billy Dallas*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET										
Well ID: <u>PZ-1</u>	Screen Interval:	Depth to Water: <u>150.99</u>	GWS QTR <u>1</u>							
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>1-12-09</u>	Page <u>1</u> of <u>1</u>							
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>TOC</u>								
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume <u>25.3</u>								
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft										
FIELD INSTRUMENT CALIBRATION										
Ph: <u>pH 4.00= _____ at _____ °C</u>	Turbidity: NTU: 0 = Reading _____ NTU: 100 = Reading _____									
Conductivity: Standard _____ S/cm at 25 °C	Reading _____ S/cm at _____ °C									
Dissolved Oxygen: Standard _____ mg/L	Reading _____ mg/L at _____ °C									
ORP: Standard _____ mV at _____ °C	Reading _____ mV at _____ °C									
Date / Time of Calibration(s): <u>(Horiba U22 XD sn: 8153008)</u>										
WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1334	1.0	1.3	20.10	158	7.5	2.7	249			
1337	0.5	1.1	21.09	164	7.34	0.9	188			
1340	0.5	1.1	21.31	168	7.31	0.9	191			
1343	0.5	1.1	21.45	161	7.34	0.9	170			
1346	0.5	1.1	21.68	179	7.34	0.9	159			
1349	0.5	1.1	21.84	178	7.35	0.9	139			
1352	0.5	1.0	21.98	178	7.35	0.9	160			
1354	0.5	1.0	22.17	185	7.31	0.9	151			
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)
SAMPLE COLLECTION										
Sampling Method (✓): <input type="checkbox"/> Dedicated Pump <input type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailer <input type="checkbox"/> Low Flow/Micropurge <input checked="" type="checkbox"/> Bennett										
Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments		
<u>PZ-1</u>	<u>1-12-09</u>	<u>1354</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon		
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon		
			500 mL	1	None	No	Wet Chem.	ACZ-Raw		
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot		
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot		
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot		
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot		
Samplers Signature(s): <u>Billy Dorris + Korky Vault</u>										
Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha Wet Chemistry - Raw: alkalinity as CaCO ₃ , conductivity @25C, pH, and TDS (ratio-measured/calculated) Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO ₃ ; Cations: calcium, magnesium, potassium, and sodium										

SAMPLING DATA SHEET

Well ID: <u>PZ-2</u>	Screen Interval:	Depth to Water: <u>44.70</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>1-9-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>Soundings Tub</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume <u>41.6</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 26.87 °C Turbidity: NTU: 0 = Reading 0-0 NTU: 100 = Reading 97.4

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 16.94 °C

Dissolved Oxygen: Standard 9.52 mg/L Reading 9.42 mg/L at 17.48 °C

ORP: Standard 101 mV at 15 °C Reading 98 mV at 16.77 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-9-09 @ 0707 1315 Pump On

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1316</u>	<u>13</u>	<u>6.72</u>	<u>23.72</u>	<u>153</u>	<u>6.41</u>	<u>1.2</u>	<u>6.9</u>	<u>12</u>	<u>0.28</u>	<u>13.00</u> <u>58.75</u>
<u>1318</u>	<u>13</u>	<u>5.90</u>	<u>23.80</u>	<u>135</u>	<u>6.33</u>	<u>1.0</u>	<u>2.4</u>	<u>38</u>	<u>0.91</u>	<u>74.81</u>
<u>1320</u>	<u>13</u>	<u>5.40</u>	<u>23.87</u>	<u>117</u>	<u>6.34</u>	<u>0.9</u>	<u>7.4</u>	<u>67</u>	<u>1.53</u>	<u>96.83</u>
<u>1322</u>	<u>13</u>	<u>4.93</u>	<u>23.91</u>	<u>135</u>	<u>6.33</u>	<u>0.9</u>	<u>7.2</u>	<u>90</u>	<u>2.16</u>	<u>105.00</u>
<u>1323</u>	<u>Well Dry</u>									<u>46.40</u> <u>FS</u>
<u>0825</u>	<u>-</u>	<u>0.9</u>	<u>17.90</u>	<u>239</u>	<u>6.23</u>	<u>7.3</u>	<u>17.2</u>	<u>-</u>		<u>46.40</u>

1-12-09

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>PZ-2</u>	<u>1-12-09</u>	<u>0825</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
<u>06P011209A</u>	<u>1-12-09</u>	<u>-</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Billy Dorris & Karkay Vauht

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @160, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: P2-3	Screen Interval:	Depth to Water: 36.68	GWS QTR: 1
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 1-6-09	Page 1 of 1
Project Number: 24096838	Total Well Depth:	Measured From: Sounding Tube	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 31	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00 = **7.0** at **12.62** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **✓**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **12.62** °C
 Dissolved Oxygen: Standard **8.52** mg/L Reading **8.35** mg/L at **12.62** °C
 ORP: Standard **101** mV at **15** °C Reading **112** mV at **12.79** °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) **1-6-08 6:025** Pump **2-1120**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1120	8 GPM	6.06	22.72	-26	7.05	0.47	34.0	-	-	32.68
1122	" "	5.88	22.92	-41	6.81	0.46	2.5	-	-	46.0
1124	" "	5.71	22.93	-28	6.81	0.45	21.6	-	-	54.10
1126	" "	5.50	22.97	-18	6.79	0.45	36.4	-	-	65.0
1127	" "	5.30	22.93	-10	6.78	0.45	68.6	-	-	73.50
1128	WELL DRY							64	2.06	DRY
1342	-	-	-	-	-	-	-	-	-	34.58
1350	-	2.20	22.73	134	6.73	0.51	123.0	-	-	

1-7-09

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
P2-3	1-7-09	1350	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): *[Signature]* & **Billy Borris**

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, berium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: PZ-4	Screen Interval:	Depth to Water: 15.85	GWS QTR: I
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 1-6-09	Page 1 of 1
Project Number: 24096836	Total Well Depth:	Measured From: Sounding Tube	
Task Code: 10015	Dedicated Pump:	Well Volume: 36	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **12.63** °C Turbidity: NTU: 0 = Reading **2.2** NTU: 100 = Reading

Conductivity: Standard **2.449** S/cm at 25 °C Reading **2.48** S/cm at **12.62** °C

Dissolved Oxygen: Standard **8.52** mg/L Reading **8.35** mg/L at **12.62** °C

ORP: Standard **101** mV at **15** °C Reading **112** mV at **12.79** °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) **1-6-09 1025** **1059 Begin Pump**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1100	22	3.43	22.01	-93	7.21	0.57	107	-	-	15.85
1101	"	0.0	22.50	-308	7.22	0.57	12.1	-	-	26.25
1102	"	0.0	22.66	-122	7.01	0.56	30.1	-	-	49.75
1103	WELL DRY	DRY	DRY	-	-	-	-	88	2.44	DRY
1-8-09 1040	NA	7.61	20.90	-14.4	6.74	0.56	23.0	-	-	15.70

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-4	1-8-09	1040	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot			

Samplers Signature(s): *[Signature]* & *Billy Davis*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

Well Sampled in FMI 72 hr purge window. Not to 80% Recovery

SAMPLING DATA SHEET			
Well ID: PZ-5	Screen Interval:	Depth to Water: 25.57	GWS QTR: <input type="checkbox"/>
Project Name: FMI Sierra	Well Diameter:	Date Measured: 1-6-09	Page 1 of 1
Project Number: 24096838	Total Well Depth:	Measured From: Sampling Tube	
Task Code: 10015	Dedicated Pump:	Well Volume: 28	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
Ph: pH: 4.00 = 3.99 at 16.51 °C	Turbidity: NTU: 0 = Reading 2.0	NTU: 100 = Reading <input checked="" type="checkbox"/>	
Conductivity: Standard 0.449 S/cm at 25 °C	Reading 2.48 S/cm at 16.51 °C		
Dissolved Oxygen: Standard 8.82 mg/L	Reading 10.53 mg/L at 16.51 °C		
ORP: Standard 101 mV at 15 °C	Reading 115 mV at 16.51 °C		
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)			

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0845	60 gpm	8.33	21.10	-58	7.13	0.78	32.2	-	-	25.57
1000	" "	7.94	23.12	-8	7.01	0.77	16.2	-	-	40.25
1002	" "	7.01	23.51	9	7.01	0.77	4.3	-	-	49.59
1004	" "	7.02	23.67	10	7.02	0.78	9.3	-	-	60.50
1005	-	6.90	WELL DRY	-	-	-	-	64	2.28	1014
1216	-	-	-	-	-	-	-	-	-	57.25
0840	-	-	-	-	-	-	-	-	-	53.88
0850	-	10.88	16.63	206	6.06	0.85	22.8	-	-	53.88
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)										

1-8-09
1-9-09

not 80% 72 hrs

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-5	1-9-09	0850	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signature] & Billy Dollis

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: P2-6	Screen Interval:	Depth to Water: 38.20	GWS QTR 1
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 1-6-09	
Project Number: 24096838	Total Well Depth:	Measured From: Sounding Tube	Page 1 of 1
Task Code: 10015	Dedicated Pump: Y	Well Volume: 26	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **12.62** °C Turbidity: NTU: 0 = Reading **6.0** NTU: 100 = Reading

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **12.62** °C

Dissolved Oxygen: Standard **8.52** mg/L Reading **8.35** mg/L at **12.62** °C

ORP: Standard **101** mV at **15** °C Reading **112** mV at **12.79** °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) **1-6-09 @ 1025 hrs**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1040	22	4.22	22.42	203	5.64	0.37	17.3		1.69	38.20
1041	Purge DAY									
1324	-	-	-	-	-	-	-	44	2.7	DRY
1328	-	0.48	21.88	205	6.28	0.41	58.9	-	-	38.20

1-7-09

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
P2-6	1-7-09	1328	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): *[Signature]* & *Billy Dorris*

Radiochemistry: gross alpha/beta, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-7	Screen Interval:	Depth to Water: 139.79	GWS QTR <u>1</u>
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 1-13-09	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Well Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00=_____ at _____ °C	Turbidity: NTU: 0 = Reading _____ NTU: 100 = Reading _____
Conductivity: Standard _____ S/cm at 25 °C	Reading _____ S/cm at _____ °C
Dissolved Oxygen: Standard _____ mg/L	Reading _____ mg/L at _____ °C
ORP: Standard _____ mV at _____ °C	Reading _____ mV at _____ °C
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)	

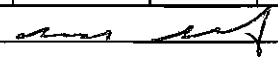
WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0852	0.1 LPM	7.6	19.38	162	6.78	6.12	0.7			139.87
0857	0.1	8.5	19.85	173	7.23	6.71	0.0			—
0902	0.1	8.6	20.78	182	7.35	6.94	0.0			139.90
0907	0.1	8.7	20.90	188	7.41	6.74	0.0			139.90
0912	0.1	8.7	21.36	194	7.45	6.58	0.0			139.92
0917	0.1	8.7	21.58	199	7.46	6.54	0.0			139.94
0922	0.1	8.8	21.55	204	7.46	6.52	0.0			139.94
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Baïer _____ Low Flow/Micropurge _____ Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-7	1-13-09	0922	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):  - Billy Norris & Korky Vault

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, end TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: P2-8	Screen Interval:	Depth to Water: 223.55	GWS QTR _____ Page 1 of _____
Project Name: FMI Siemita	Well Diameter:	Date Measured: 1-6-09	
Project Number: 24096836	Total Well Depth:	Measured From: Sampling Tube	
Task Code: 10015	Dedicated Pump:	Well Volume: 74 GAL	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **3.99** at **16.51** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading

Conductivity: Standard **2.449** S/cm at 25 °C Reading **0.45** S/cm at **16.51** °C

Dissolved Oxygen: Standard **3.52** mg/L Reading **10.53** mg/L at **16.51** °C

ORP: Standard **101** mV at **15** °C Reading **115** mV at **16.51** °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) **1-6-09 0825** **0842 Start**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
0845	86PM	4.61	24.69	-89	6.70	0.11	457	10224		241.30
0847	86PM	4.03	24.45	-81	6.89	0.10	127	17040	5	259.10
well Purged dry at 0847										
1233	-	-	-	-	-	-	-	-	-	223.63
1245	-	7.41	22.31	147	7.05	0.10	43.8	-	-	-
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)										

1-8-09

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
P2-8	1-8-09	1245	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):  & **Billy Davis**

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

mg/L 4.61 = 0.00046%

SAMPLING DATA SHEET

Well ID: PZ-16	Screen Interval:	Depth to Water: 19.25	GWS QTR 1
Project Name: FMI Sierra	Well Diameter:	Date Measured: 1-12-09	Page 1 of 1
Project Number: 24096836	Total Well Depth:	Measured From: Sampling Tube	
Task Code: 10015	Dedicated Pump:	Well Volume 40	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00=_____ at _____ °C Turbidity: NTU: 0 = Reading _____ NTU: 100 = Reading _____
 Conductivity: Standard _____ S/cm at 25 °C Reading _____ S/cm at _____ °C
 Dissolved Oxygen: Standard _____ mg/L Reading _____ mg/L at _____ °C
 ORP: Standard _____ mV at _____ °C Reading _____ mV at _____ °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1042	9	8.80	21.87	126	6.52	0.82	5.21			19.25
1044	9	8.80	22.30	110	6.53	1.1	0.0			37.04
1046	9	7.80	22.33	93	6.58	0.90	0.0			53.15
1048	9	8.7	22.35	38	6.63	0.90	13.5			68.06
1049	WELL DRY									
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): _____ Dedicated Pump _____ Non-Dedicated Pump _____ Hand Bailer _____ Low Flow/Micropurge _____ Bennett _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
			1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>PZ-2007-05</u>	Screen Interval:	Depth to Water: <u>246.30</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierita</u>	Well Diameter:	Date Measured: <u>1-9-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth:	Measured From: <u>720</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>7.1</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 16.74 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 97.4

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 16.94 °C

Dissolved Oxygen: Standard 8.52 mg/L Reading 9.42 mg/L at 17.48 °C

ORP: Standard 101 mV at 15 °C Reading 98 mV at 16.73 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) 1-9-09 @ 0707 1205 DM

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
1210	<u>1 gpm</u>	<u>7.27</u>	<u>22.12</u>	<u>225</u>	<u>7.00</u>	<u>1.1</u>	<u>529.0</u>	<u>5</u>	<u>0.7</u>	<u>NA</u>
1213	<u>" "</u>	<u>6.59</u>	<u>22.92</u>	<u>230</u>	<u>7.01</u>	<u>1.0</u>	<u>324.0</u>	<u>8</u>	<u>1.12</u>	<u>NA</u>
1216	<u>" "</u>	<u>5.84</u>	<u>23.22</u>	<u>232</u>	<u>7.02</u>	<u>0.9</u>	<u>303.0</u>	<u>11</u>	<u>1.54</u>	<u>NA</u>
1219	<u>" "</u>	<u>4.05</u>	<u>23.64</u>	<u>236</u>	<u>7.02</u>	<u>0.9</u>	<u>316.0</u>	<u>14</u>	<u>1.97</u>	<u>NA</u>
1222	<u>" "</u>	<u>3.89</u>	<u>23.87</u>	<u>237</u>	<u>7.03</u>	<u>0.9</u>	<u>156.0</u>	<u>17</u>	<u>2.39</u>	<u>NA</u>
1225	<u>" "</u>	<u>3.46</u>	<u>23.99</u>	<u>239</u>	<u>7.03</u>	<u>0.9</u>	<u>196.0</u>	<u>20</u>	<u>2.81</u>	<u>NA</u>
1226	<u>" "</u>	<u>3.40</u>	<u>24.04</u>	<u>240</u>	<u>7.04</u>	<u>0.9</u>	<u>197.0</u>	<u>21</u>	<u>2.95</u>	<u>NA</u>
1228	<u>" "</u>	<u>3.30</u>	<u>24.12</u>	<u>241</u>	<u>7.05</u>	<u>0.9</u>	<u>249.0</u>	<u>23</u>	<u>3.23</u>	<u>NA</u>

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>PZ-2007-05</u>	<u>1-9-09</u>	<u>1228</u>	<u>1 gal</u>	<u>1</u>	<u>HNO3</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO3</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H2SO4 / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO3</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature] & Billy Dorris

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

NA - cannot get sounder in with Bennett pump.

SAMPLING DATA SHEET

Well ID: <u>Ampersan Intercept</u>	Screen Interval: <input checked="" type="checkbox"/>	Depth to Water: <u>18.70'</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>5.0 in</u>	Date Measured: <u>2-17-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <input checked="" type="checkbox"/>	Measured From: <u>Ground</u>	
Task Code: <u>10015</u>	Dedicated Pump: <input checked="" type="checkbox"/>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 20.47 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading NA

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 20.47 °C

Dissolved Oxygen: Standard 8.848 mg/L at 20 °C Reading 9.02 mg/L at 20.47 °C

ORP: Standard 95 mV at 20 °C Reading 111 mV at 20.62 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1250</u>	<u>200 gpm</u>	<u>2.19</u>	<u>18.30</u>	<u>331</u>	<u>3.89</u>	<u>1.77 S/cm</u>	<u>0.0</u>	<u>NA</u>	<u>NA</u>	<u>18.70 ± 0.65</u>
<p><i>Collect Sample From Hose Discharging to Spillway at lined canal. Aker pumping ~ 20 bpm / temperature</i></p>										
Stabilization		(± 10%)	(± 1 deg.)	(± 10 mV)	(± 1)	(± 5%)	(± 10%)			(± 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Ampersan Intercept</u>	<u>2-17-09</u>	<u>1250</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, end TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Amargosa Pond</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>NA</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>NA</u>	Date Measured: <u>2-4-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal./ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal./ft. 2" = 0.163 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.96 at 15.78 °C Turbidity: NTU: 0 = Reading 0.1 NTU: 100 = Reading NA
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.51 S/cm at 15.78 °C
 Dissolved Oxygen: Standard 9.56 @ 16° mg/L Reading 9.88 mg/L at 15.78 °C
 ORP: Standard 127 mV at 15 °C Reading 110 mV at 15.38 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1120</u>	<u>NA</u>	<u>10.29</u>	<u>14.80</u>	<u>449</u>	<u>7.31</u>	<u>2.67</u>	<u>4.3</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>Collect sample from port in pump box / 5 gal Bucket</u>										
<i>(A large diagonal line is drawn across the remaining rows of this table.)</i>										
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Bucket

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Amargosa Pond</u>	<u>2-4-09</u>	<u>1120</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signatures]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>B Sump</u>	Screen Interval: <u>n/a</u>	Depth to Water: <u>19.62 TOC</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>n/a</u>	Date Measured: <u>2-19-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>n/a</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n/a</u>	Well Volume <u>n/a</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.99 at 23.54 °C Turbidity: NTU: 0 = Reading 1.0 NTU: 100 = Reading n/a
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.778 S/cm at 23.54 °C
 Dissolved Oxygen: Standard 8.57 mg/L Reading 7.96 mg/L at 23.54 °C
 ORP: Standard 108 mV at 23.52 °C Reading 98 mV at 20 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	ENORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1430</u>	<u>n/a</u>	<u>3.15</u>	<u>23.82</u>	<u>168</u>	<u>3.95</u>	<u>1.14</u>	<u>4.7</u>	<u>n/a</u>	<u>n/a</u>	<u>19.62</u>
/										
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>B Sump</u>	<u>2-19-09</u>	<u>1430</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): KW

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Bailey Lake</u>	Screen Interval: <u>n/a</u>	Depth to Water: <u>n/a</u>	GWS QTR <u>1</u>
Project Name: FMI Sierra	Well Diameter: <u>n/a</u>	Date Measured: <u>1-21-09</u>	
Project Number: 24096838	Total Well Depth: <u>n/a</u>	Measured From: <u>n/a</u>	
Task Code: 10015	Dedicated Pump: <u>n/a</u>	Well Volume <u>ng</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.02 at 18.73 °C Turbidity: NTU: 0 = Reading n/a NTU: 100 = Reading 97.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 18.73 °C
 Dissolved Oxygen: Standard 8.52 mg/L Reading 9.45 mg/L at 18.73 °C
 ORP: Standard 90 mV at _____ °C Reading 98 mV at _____ °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) ORP not checked

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1030</u>	<u>N/A</u>	<u>8.84</u>	<u>16.61</u>	<u>542</u>	<u>2.51</u>	3.32 <u>3.325</u> u	<u>20.4</u>			
Stabilization	(+/- 10%)	(+/- 1 %)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): _____ Dedicated Pump _____ Non-Dedicated Pump X Hand Bailor _____ Low Flow/Micropurge _____ Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Bailey Lake</u>	<u>1-21-09</u>	<u>1030</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Kr Wal

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>C SUMP</u>	Screen Interval: <input checked="" type="checkbox"/>	Depth to Water: <u>13.30' BGS</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>5mp</u>	Date Measured: <u>2-17-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>V</u>	Measured From: <u>Ground</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>YES</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.00</u> at <u>20.47</u> °C Conductivity: Standard <u>0.449</u> S/cm at 25 °C Dissolved Oxygen: Standard <u>8.84 @ 20°</u> mg/L ORP: Standard <u>95</u> mV at <u>20</u> °C Date / Time of Calibration(s): <u>(Horiba U22 XD sn: 8153008)</u>	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>NA</u> Reading <u>0.448</u> S/cm at <u>20.47</u> °C Reading <u>9.02</u> mg/L at <u>20.47</u> °C Reading <u>111</u> mV at <u>20.62</u> °C
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WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>12:05</u>	<u>20 gpm</u>	<u>4.92</u>	<u>20.78</u>	<u>197</u>	<u>5.93</u>	<u>0.444</u>	<u>1.1</u>	<u>NA</u>	<u>NA</u>	<u>13.30 BGS</u>
Collect Sample From Hose Discharging to Dual (and) AKer pumping ~ 20 gpm with Temp Generator										
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (): Dedicated Pump Non-Dedicatad Pump Hand Bailer: Low Flow/Micropurge. Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>C SUMP</u>	<u>2-17-09</u>	<u>12:05</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Decant Solution</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>NA</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierita</u>	Well Diameter: <u>NA</u>	Date Measured: <u>2-26-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal./ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal./ft. 2" = 0.163 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 24.37 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading ✓

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.440 S/cm at 24.37 °C

Dissolved Oxygen: Standard 8.250240 mg/L Reading 7.95 mg/L at 24.37 °C

ORP: Standard 89 mV at 25 °C Reading 96 mV at 26.24 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Ev/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1100</u>	<u>NA</u>	<u>0.00</u>	<u>24.29</u>	<u>-342</u>	<u>11.14</u>	<u>0.381</u>	<u>13.7</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>Monthly Sample</u>										

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Bucket

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Decant Solution</u>	<u>2-26-09</u>	<u>1100</u>	<u>1 gal ✓</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal ✓</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL ✓</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Former B Pond</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>~3' BGS</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>5/8"</u>	Date Measured: <u>2-4-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096836</u>	Total Well Depth: <u>NA</u>	Measured From: <u>GROUND</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph:	pH: 4.00 = <u>3.96</u> at <u>15.78</u> °C	Turbidity: NTU: 0 = Reading <u>0.20</u> NTU: 100 = Reading <u>NA</u>
Conductivity:	Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.51</u> S/cm at <u>15.78</u> °C
Dissolved Oxygen:	Standard <u>9.56</u> mg/L at <u>16</u> °C	Reading <u>9.88</u> mg/L at <u>15.78</u> °C
ORP:	Standard <u>101</u> mV at <u>15</u> °C	Reading <u>110</u> mV at <u>15.38</u> °C
Date / Time of Calibration(s):	(Horiba U22 XD sn: 8153008)	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1033</u>	<u>NA</u>	<u>3.90</u>	<u>10.51</u>	<u>340</u>	<u>3.65</u>	<u>1.77</u>	<u>245</u>	<u>NA</u>	<u>NA</u>	<u>2' BGS</u>
<p align="center"><u>Revised sample from 5 gallon bucket</u></p>										
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Bucket

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Former B Pond</u>	<u>2-4-09</u>	<u>1033</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dsld.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dsld.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Headwall No. 1</u>	Screen Interval: <u>n/a</u>	Depth to Water: <u>n/a</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>n/a</u>	Date Measured: <u>1-21-09</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>n/a</u>	Measured From: <u>n/a</u>	Page <u>1</u> of <u> </u>
Task Code: <u>10015</u>	Dedicated Pump: <u>n/a</u>	Well Volume: <u>n/a</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.02</u> at <u>18.73</u> °C	Turbidity: NTU: 0 = Reading <u>n/a</u> NTU: 100 = Reading <u>97.5</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>18.73</u> °C
Dissolved Oxygen: Standard <u>9.95</u> mg/L	Reading <u>8.51</u> mg/L at <u> </u> °C
ORP: Standard <u>NA</u> mV at <u> </u> °C	Reading <u>NA</u> mV at <u> </u> °C
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) <u>ORP not checked</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	ENORP (mV)	pH	Spec. Cond S/cm	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>0930</u>	<u>ML</u>	<u>8.51</u>	<u>18.68</u>	<u>551</u>	<u>2.65</u>	<u>3.20</u>	<u>20.0</u>			
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 1</u>	<u>1-21-09</u>	<u>930</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): K. Wel

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Handwell No. 2</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>NA</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sterita</u>	Well Diameter: <u>NA</u>	Date Measured: <u>2-26-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: <u>pH: 4.00 = 6.0 at 24.37°C</u>	Turbidity: NTU: 0 = Reading <u>0</u> NTU: 100 = Reading <u>✓</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.440</u> S/cm at <u>24.37</u> °C
Dissolved Oxygen: Standard <u>8.85021</u> mg/L	Reading <u>7.95</u> mg/L at <u>24.37</u> °C
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>96</u> mV at <u>26.24</u> °C
Date / Time of Calibration(s): <u>(Horiba U22 XD sn: 8153008)</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1320</u>	<u>NA</u>	<u>9.35</u>	<u>14.70</u>	<u>526</u>	<u>2.96</u>	<u>2.88</u>	<u>6.7</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
Stabilization		(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)			(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Bucket

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Handwell No. 2</u>	<u>2-26-09</u>	<u>1320</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-RAW</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Handwall No. 3 / Potomac Pond No. 3</u>	Screen Interval: <u>n/a</u>	Depth to Water: <u>n/a</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>n/a</u>	Date Measured: <u>2-2-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>n/a</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n/a</u>	Well Volume: <u>n/a</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 12.24 °C Turbidity: NTU: 0 = Reading 0.6 NTU: 100 = Reading _____
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.451 S/cm at 12.24 °C
 Dissolved Oxygen: Standard 10.52 mg/L Reading 10.41 mg/L at 12.24 °C
 ORP: Standard 95 mV at 20 °C Reading 112 mV at 12.98 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1415</u>	<u>n/a</u>	<u>9.57</u>	<u>20.50</u>	<u>509</u>	<u>2.97</u>	<u>3.0</u>	<u>0.0</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): _____ Dedicated Pump _____ Non-Dedicated Pump Hand Bail _____ Low Flow/Micropurge _____ Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Handwall No 3</u>	<u>2-2-09</u>	<u>1415</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Ken Wall

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Headwall No. 5</u>	Screen Interval: <u>n/a</u>	Depth to Water: <u>n/a</u>	GWS QTR <u>1</u> Page <u>1</u> of <u> </u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>n/a</u>	Date Measured: <u>2-3-09</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>n/a</u>	Measured From: <u>n/a</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>n/a</u>	Well Volume: <u>n/a</u>	

Well Volumes: 3/8" = 0.0025 gal./ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal./ft. 2" = 0.163 gal./ft.

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.09 at 16.81 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading n/a
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.421 S/cm at 16.81 °C
 Dissolved Oxygen: Standard 10.52 mg/L Reading 9.33 mg/L at 16.81 °C
 ORP: Standard 95 mV at 25 °C Reading 132 mV at 15.96 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1045</u>	<u>n/a</u>	<u>14.96</u>	<u>11.85</u>	<u>296</u>	<u>7.68</u>	<u>1.07</u>	<u>11.4</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 5</u>	<u>2-3-09</u>	<u>1045</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Kai Wald

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; **Cations:** calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Intercept Ab. 1</u>	Screen Interval: <u>N/A</u>	Depth to Water: <u>N/A</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>N/A</u>	Date Measured: <u>1-21-09</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>Sump</u>	Measured From: _____	
Task Code: <u>10015</u>	Dedicated Pump: <u>KE</u>	Well Volume _____	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: <u>pH: 4.00-4.02 at 18.73 °C</u>	Turbidity: NTU: 0 = Reading <u>✓</u>	NTU: 100 = Reading <u>97.4</u>
Conductivity: Standard <u>2.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>18.73</u> °C	
Dissolved Oxygen: Standard <u>9.52</u> mg/L	Reading <u>9.49</u> mg/L at <u>18.73</u> °C	
ORP: Standard <u>99</u> mV at _____ °C	Reading <u>98</u> mV at _____ °C	
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008) <u>ORP not checked</u>		

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1440</u>	<u>N/A</u>	<u>6.38</u>	<u>23.50</u>	<u>329</u>	<u>3.56</u>	<u>2.57</u>	<u>16.1</u>	-	-	
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): X Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Intercept Ab. 1</u>	<u>1-21-09</u>	<u>1440</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Intercept No. 2</u>	Screen Interval: <u>N/A</u>	Depth to Water: <u>9.22 Top of Man Way</u>	GWS QTR <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>6 in</u>	Date Measured: <u>2-4-09</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>N/A</u>	Measured From: <u>Top of 6" Sump Manway</u>	Page <u>1</u> of <u>1</u>
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.96 at 15.78 °C Turbidity: NTU: 0 = Reading 0.2 NTU: 100 = Reading N/A

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.51 S/cm at 15.78 °C

Dissolved Oxygen: Standard 9.56 @ 16 °C mg/L Reading 9.88 mg/L at 15.78 °C

ORP: Standard 101 mV at 15 °C Reading 110 mV at 15.78 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1340</u>	<u>4.00 mL/min</u>	<u>10.70</u>	<u>22.51</u>	<u>285</u>	<u>6.27</u>	<u>0.348</u>	<u>2.1</u>	<u>-</u>	<u>-</u>	<u>9.22</u>
<u>Pump Sample from Sump with Peristaltic</u>										
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (+): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Peristaltic

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Intercept No. 2</u>	<u>2-4-09</u>	<u>1340</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Rockwell Pond 2</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>NA</u>	GWS QTR: <u>1</u>
Project Name: <u>FMI Sierita</u>	Well Diameter: <u>NA</u>	Date Measured: <u>2-26-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Well Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 24.37 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading ✓
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.440 S/cm at 24.37 °C
 Dissolved Oxygen: Standard 8.25 @ 24 mg/L Reading 7.95 mg/L at 24.37 °C
 ORP: Standard 89 mV at 25 °C Reading 96 mV at 26.24 °C
 Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	ElvORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1008</u>	<u>-</u>	<u>7.17</u>	<u>19.99</u>	<u>454</u>	<u>2.07</u>	<u>3.06</u>	<u>0.0</u>	<u>✓</u>	<u>-</u>	<u>NA</u>
<u>Collect Sample in 5 gal Bucket from liner pump</u>										
Stabilization		(± 10%)	(± 1 deg.)	(± 10 mV)	(± 1)	(± 5%)	(± 10%)			(± 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Rockwell Pond 2</u>	<u>2-26-09</u>	<u>1008</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Reclaim Pond</u>	Screen Interval: <u>n/a</u>	Depth to Water: <u>n/a</u>	GWS QTR: <u>1</u>
Project Name: FMI Sierra	Well Diameter: <u>n/a</u>	Date Measured: <u>2-3-09</u>	Page <u>1</u> of <u> </u>
Project Number: 24096838	Total Well Depth: <u>n/a</u>	Measured From: <u>n/a</u>	
Task Code: 10015	Dedicated Pump: <u>n/a</u>	Well Volume: <u>n/a</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>7.09</u> at <u>16.81</u> °C Conductivity: Standard <u>0.449</u> S/cm at 25 °C Dissolved Oxygen: Standard <u>10.52</u> mg/L ORP: Standard <u>95</u> mV at <u>25</u> °C Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>n/a</u> Reading <u>0.421</u> S/cm at <u>16.81</u> °C Reading <u>9.33</u> mg/L at <u>16.81</u> °C Reading <u>132</u> mV at <u>15.96</u> °C
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WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1300</u>	<u>n/a</u>	<u>10.52</u>	<u>16.11</u>	<u>241</u>	<u>5.9</u>	<u>0.90 S/m</u>	<u>13.1</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): _____ Dedicated Pump Non-Dedicated Pump _____ Hand Bailor _____ Low Flow/Micropurge _____ Bennett _____

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Reclaim Pond</u>	<u>2-3-09</u>	<u>1300</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Ken Wat

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Reclaim Pond</u>	Screen Interval: <u>NA</u>	Depth to Water: <u>NA</u>	GWS QTR <u>1</u> Page <u>1</u> of <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>NA</u>	Date Measured: <u>2-26-09</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 24.37 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading ✓

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.440 S/cm at 24.37 °C

Dissolved Oxygen: Standard 9.250249 mg/L Reading 7.95 mg/L at 24.37 °C

ORP: Standard 29 mV at 25 °C Reading 96 mV at 26.24 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1145</u>	<u>-</u>	<u>9.85</u>	<u>16.28</u>	<u>96</u>	<u>9.15</u>	<u>0.391</u>	<u>6.4</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>Monthly Sample</u>										
<div style="border-left: 1px solid black; border-right: 1px solid black; height: 300px; width: 100%;"></div>										
Stabilization	(± 10%)	(± 1 deg.)	(± 10 mV)	(± 1)	(± 5%)	(± 10%)				(± 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Bucket

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Reclaim Pond</u>	<u>2-26-09</u>	<u>1145</u>	1 gal ✓	1	HNO ₃	Yes	Radiochemistry	Paragon
			1 gal ✓	1	HNO ₃	No	Radiochemistry	Paragon
			500 mL	1	None	No	Wet Chem.	ACZ-Raw
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			250 mL ✓	1	HNO ₃	Yes	Metals Dslvd	ACZ-Green Dot

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (radio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃. Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET													
Well ID:	SX-Sump 1			Screen Interval:	n/a			Depth to Water:	6.65			GWS QTR	1
Project Name:	FMI Siemita			Well Diameter:	3.0'			Date Measured:	2-11-09			Page	1 of 1
Project Number:	24096838			Total Well Depth:	n/a			Measured From:	TOC				
Task Code:	10015			Dedicated Pump:	n/a			Well Volume	n/a				
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft													
FIELD INSTRUMENT CALIBRATION													
Ph:	pH: 4.00 = 3.96 at 17.97 °C			Turbidity: NTU: 0 = Reading 0.2 NTU: 100 = Reading n/a									
Conductivity:	Standard 0.449 S/cm at 25 °C			Reading 0.999 S/cm at 17.97 °C									
Dissolved Oxygen:	Standard 9.52 mg/L			Reading 9.0 mg/L at 17.97 °C									
ORP:	Standard 98 mV at 20 °C			Reading 115 mV at 18.45 °C									
Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)													
WELL PURGING AND STABILIZATION PARAMETERS													
Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water			
1200	n/a	6.60	16.10	404	3.04	1.35	951	n/a	n/a	6.65			
Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)													
SAMPLE COLLECTION													
Sampling Method (✓): <input type="checkbox"/> Dedicated Pump <input checked="" type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailer <input type="checkbox"/> Low Flow/Micropurge <input type="checkbox"/> Bennett													
Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments					
SX-Sump 1	2-11-09	1200	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon					
			1 gal	1	HNO ₃	No	Radiochemistry	Paragon					
			500 mL	1	None	No	Wet Chem.	ACZ-Raw					
			250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot					
			500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot					
			250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot					
			250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot					
Samplers Signature(s): <u>Ron Wad</u>													
Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha Wet Chemistry - Raw: alkalinity as CaCO ₃ , conductivity @25C, pH, and TDS (ratio-measured/calculated) Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO ₃ : Cations: calcium, magnesium, potassium, and sodium													

SAMPLING DATA SHEET

Well ID: <u>Sx-Sump 2</u>	Screen Interval: <u>n/a</u>	Depth to Water: <u>7.45</u>	GWS QTR <u>1</u> Page <u>1</u> of <u>1</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>3.0'</u>	Date Measured: <u>2-11-09</u>	
Project Number: <u>24096838</u>	Total Well Depth: <u>n/a</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <input checked="" type="checkbox"/>	Well Volume: <u>n/a</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 3.96 at 17.97 °C Turbidity: NTU: 0 = Reading 0.2 NTU: 100 = Reading n/a

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.999 S/cm at 17.97 °C

Dissolved Oxygen: Standard 4.52 mg/L Reading 9.00 mg/L at 17.97 °C

ORP: Standard 98 mV at 20 °C Reading 115 mV at 18.45 °C

Date / Time of Calibration(s): (Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Gallons Purged	Casing Vol.	Depth to Water
<u>1115</u>	<u>n/a</u>	<u>6.57</u>	<u>17.62</u>	<u>349</u>	<u>2.71</u>	<u>0.50</u>	<u>-5.0</u>	<u>n/a</u>	<u>n/a</u>	<u>7.45</u>
Stabilization		(±- 10%)	(±- 1 deg.)	(±- 10 mV)	(±- 1)	(±- 5%)	(±- 10%)			(±- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (√): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett

Sample ID	Date	Time	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Sx-Sump 2</u>	<u>2-11-09</u>	<u>1115</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): Ken Walsh

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-01	Screen Set:	Depth to Water: 63.53'	GWS QTR 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 700	Page 2 of 2
Project Number: 24096838	Total Depth:	Measured From: 4-20-09	
Task Code: 10015	Dedicated Pump: NO	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.00** at **23.5** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **100.0**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.455** S/cm at **23.5** °C
 Dissolved Oxygen: Standard **8.34** mg/L at **23** °C Reading **8.7** mg/L at **23.5** °C
 ORP: Standard **95** mV at **20** °C Reading **93** mg/L at **23.1** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-20-09 @ 0725** **0936 Beqis Micro Page**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0817	-	-	-	-	-	-	-	-	-	63.53
0850	130	6.02	0.28	28.1	3.7	24.5	96	-	-	63.65
0855	130	5.91	0.28	32.1	2.9	24.4	126	-	-	63.69
0900	125	5.88	0.28	35.7	2.8	24.6	134	-	-	63.70
0905	125	5.88	0.28	37.3	2.7	24.7	136	-	-	63.70
0910	125	5.87	0.28	24.9	2.7	24.7	140	-	-	63.70
0915	125	5.88	0.28	24.5	2.7	24.9	147	-	-	63.71
0920	125	5.89	0.28	24.3	2.8	24.8	149	-	-	63.71

NOTES:	0.1	590	10%	10%	10%	± 10	± 10			
Stabilization	(±10%)	(±1 deg.)	(±10 mV)	(±1)	(±5%)	(±10%)				(± 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-01	4-20-09	0920	✓	1 gal	1	HNO₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H₂SO₄/Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, end TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @160, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: MW-2008-02	Screen Set:	Depth to Water: 32.54	GWS QTR 2
Project Name: FMI Sierra	Well Diameter:	Date Measured: TOC ↓ 4-20-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From:	
Task Code: 10015	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.5 °C	Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 100
Conductivity: Standard 0.449 S/cm at 25 °C	Reading 0.455 S/cm at 23.5 °C
Dissolved Oxygen: Standard 8.39 mg/L at 23 °C	Reading 8.7 mg/L at 23.5 °C
ORP: Standard 95 mV at 20 °C	Reading 93 mg/L at 23.1 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)	4-20-09 @ 0725 1030 Begin MicroPurge

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1020	-	-	-	-	-	-	-	-	-	32.54
1040	80	6.38	0.9	31.9	2.0	25.7	22	-	-	32.60
1045	110	6.30	0.87	30.0	0.7	25.1	18	-	-	32.68
1050	110	6.26	0.85	29.6	0.7	25.5	18	-	-	32.77
1055	50	6.25	0.84	29.2	0.6	25.9	17	-	-	33.81
1100	50	6.26	0.85	29.4	0.6	26.2	17	-	-	33.84

NOTES:	0.1	5%	10%	10%	10	± 10				
Stabilization	(±10%)	(±1 deg.)	(±10 mV)	(±1%)	(±5%)	(±10%)				(±0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-02	4-20-09	1100	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot			
"VRP SUITE"									

Samplers Signature(s): *[Signature]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>MW-2008-03</u>	Screen Set:	Depth to Water: <u>35.65'</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>4-20-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.5 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 100

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.445 S/cm at 23.5 °C

Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.7 mg/L at 23.5 °C

ORP: Standard 95 mV at 20 °C Reading 93 mg/L at 23.1 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-20-09 @ 0725 1215 Bogus Pumping

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1200</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>35.65</u>
<u>1225</u>	<u>90</u>	<u>6.58</u>	<u>0.99</u>	<u>24.2</u>	<u>7.9</u>	<u>27.6</u>	<u>149</u>	<u>-</u>	<u>-</u>	<u>35.73</u>
<u>1230</u>	<u>90</u>	<u>6.56</u>	<u>0.9</u>	<u>24.5</u>	<u>7.6</u>	<u>27.2</u>	<u>153</u>	<u>-</u>	<u>-</u>	<u>35.74</u>
<u>1235</u>	<u>90</u>	<u>6.51</u>	<u>0.9</u>	<u>26.5</u>	<u>7.4</u>	<u>26.5</u>	<u>160</u>	<u>-</u>	<u>-</u>	<u>35.84</u>
<u>1240</u>	<u>70</u>	<u>6.49</u>	<u>0.9</u>	<u>27.6</u>	<u>7.5</u>	<u>26.5</u>	<u>164</u>	<u>-</u>	<u>-</u>	<u>35.90</u>
<u>1245</u>	<u>40</u>	<u>6.48</u>	<u>0.9</u>	<u>28.2</u>	<u>7.0</u>	<u>26.5</u>	<u>166</u>	<u>-</u>	<u>-</u>	<u>35.95</u>
<u>1250</u>	<u>40</u>	<u>6.48</u>	<u>0.98</u>	<u>21.9</u>	<u>6.9</u>	<u>26.7</u>	<u>168</u>	<u>-</u>	<u>-</u>	<u>36.00</u>
<u>1255</u>	<u>40</u>	<u>6.48</u>	<u>0.9</u>	<u>23.2</u>	<u>6.7</u>	<u>26.8</u>	<u>169</u>	<u>-</u>	<u>-</u>	<u>36.05</u>
<u>1300</u>	<u>40</u>	<u>6.48</u>	<u>0.9</u>	<u>23.2</u>	<u>6.8</u>	<u>26.8</u>	<u>170</u>	<u>-</u>	<u>-</u>	<u>36.10</u>

NOTES: 0.1 590 1090 1090 10 ± 10

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-03</u>	<u>4-20-09</u>	<u>1300</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>NO</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>NO</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @160, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-04 Screen Set: Depth to Water: 34.42 GWS QTR 2
Project Name: FMI Sierrita Well Diameter: Date Measured: 4-20-09
Project Number: 24096838 Total Depth: Measured From: TOC Page 1 of 1
Task Code: 10015 Dedicated Pump: NO Well Volume:

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.5 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 100
Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.445 S/cm at 23.5 °C
Dissolved Oxygen: Standard 8.79 mg/L at 23 °C Reading 8.7 mg/L at 23.5 °C
ORP: Standard 95 mV at 20 °C Reading 93 mg/L at 23.1 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-20-09 @ 0725 1400 Begin Pumping

WELL PURGING AND STABILIZATION PARAMETERS

Table with 11 columns: Time, Discharge Rate, pH, Spec. Cond (S/cm), Turbidity (NTU), Dissolved Oxygen (mg/L), Temp °C, Eh/ORP (mV), Gallons Purged, Casing Vol., Depth to Water. Contains data for times 1352 through 1440.

NOTES: Table with columns for Stabilization, (+/-10%), (+/-1 deg.), (+/- 10 mV), (+/-1), (+/- 5%), (+/-10%), and (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): ___ Dedicated Pump ___ Non-Dedicated Pump ___ Hand Bailer X Low Flow/Micropurge ___ Bennett ___ Other

Table with 10 columns: Sample ID, Date, Time, (✓) if Filled, Container Type, Number of Containers, Preservative, Filtered Yes/No, Analysis, Comments. Includes entries for MW-2008-04 at 1440.

Samplers Signature(s): [Handwritten Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-06	Screen Set:	Depth to Water: 18.52'	GWS QTR 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-22-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.3 °C	Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 100
Conductivity: Standard 0.449 S/cm at 25 °C	Reading 0.45 S/cm at 23.3 °C
Dissolved Oxygen: Standard 8.39 mg/L at 23 °C	Reading 8.8 mg/L at 23.3 °C
ORP: Standard 95 mV at 22 °C	Reading 88 mg/L at 22.8 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-22 @ 0900 Begin Pumping 0912	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate ml/min	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0855	-	-	-	-	-	-	-	-	-	18.52
0920	105	6.32	0.70	22.1	5.9	23.8	102	-	-	18.62
0925	105	6.28	0.71	22.6	5.8	23.5	118	-	-	18.68
0930	80	6.25	0.72	21.3	5.7	23.8	124	-	-	18.71
0935	80	6.23	0.72	21.2	5.6	24.0	130	-	-	18.73
0940	50	6.23	0.71	20.9	5.5	24.3	134	-	-	18.73
0945	50	6.24	0.70	21.0	5.5	24.7	140	-	-	18.74
(Remaining rows are crossed out with a diagonal line)										

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-06	4-22-09	0945	XX	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
MW-2008-06	4-22-09	0950	XX	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			XX	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			XX	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
XX = DUP Analyse			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			XX	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			XX	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

DUP

SAMPLING DATA SHEET

Well ID: MW-2008-07	Screen Set:	Depth to Water: 25.30	GWS QTR: 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-22-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump:	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.3 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 100
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 23.3 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 27 °C Reading 8.8 mg/L at 23.3 °C
 ORP: Standard 95 mV at 22 °C Reading 88 mV at 22.8 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-22-09 0800 Begin Purging 1123

WELL PURGING AND STABILIZATION PARAMETERS

Time	ML/min Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1125	-	-	-	-	-	-	-	-	-	25.30
1145	105	5.90	0.83	43.1	5.7	25.5	177	-	-	25.46
1150	95	5.92	0.76	47.1	5.0	26.0	181	-	-	25.52
1155	75	5.78	0.76	42.7	4.8	26.4	183	-	-	25.60
1200	75	5.77	0.77	42.0	4.7	27.1	184	-	-	25.63
1205	75	5.76	0.79	42.2	4.8	27.4	185	-	-	25.65

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-07	4-22-09	1205	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			no	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			no	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-08</u>	Screen Set:	Depth to Water: <u>18.39'</u>	GWS QTR <u>2</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>4-24-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth:	Measured From: <u>TOC</u>	
Task Code: 10015	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.10 at 22.5 °C Turbidity: NTU: 0 = Reading 0.1 NTU: 100 = Reading 85.8
 Conductivity: Standard 0.45 S/cm at 25 °C Reading 0.45 S/cm at 22.5 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.8 mg/L at 22.5 °C
 ORP: Standard 95 mV at 20 °C Reading 83 mg/L at 22.8 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-24 @ 0755 0850 Reg'd Pumping

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0840</u>	-	-	-	-	-	-	-	-	-	<u>18.39</u>
<u>0900</u>	<u>60</u>	<u>6.42</u>	<u>0.51</u>	<u>0.0</u>	<u>7.2</u>	<u>23.2</u>	<u>133</u>	-	-	<u>18.35</u>
<u>0905</u>	<u>60</u>	<u>6.39</u>	<u>0.52</u>	<u>0.0</u>	<u>6.3</u>	<u>23.5</u>	<u>144</u>	-	-	<u>18.50</u>
<u>0910</u>	<u>60</u>	<u>6.38</u>	<u>0.52</u>	<u>0.0</u>	<u>6.1</u>	<u>23.6</u>	<u>149</u>	-	-	<u>18.58</u>
<u>0915</u>	<u>60</u>	<u>6.37</u>	<u>0.52</u>	<u>0.0</u>	<u>5.5</u>	<u>23.6</u>	<u>154</u>	-	-	<u>18.72</u>
<u>0920</u>	<u>60</u>	<u>6.37</u>	<u>0.52</u>	<u>1.1</u>	<u>5.5</u>	<u>23.7</u>	<u>158</u>	-	-	<u>18.81</u>

NOTES: Well did not recover to 80% in 72 hrs. - Difficult to stabilize.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-08</u>	<u>4-24-09</u>	<u>0920</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfato
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-09</u>	Screen Set:	Depth to Water: <u>37.02</u>	GWS QTR <u>4</u>
Project Name: FMI Siemita	Well Diameter:	Date Measured: <u>4-24-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth:	Measured From: <u>TOC</u>	
Task Code: 10015	Dedicated Pump: <u>NX</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = <u>4.0</u> at <u>22.5</u> °C Conductivity: Standard <u>0.45</u> S/cm at 25 °C Dissolved Oxygen: Standard <u>8.39</u> mg/L at <u>23</u> °C ORP: Standard <u>95</u> mV at <u>20</u> °C	Turbidity: NTU: 0 = Reading <u>0.1</u> NTU: 100 = Reading <u>85.8</u> Reading <u>0.45</u> S/cm at <u>22.5</u> °C Reading <u>8.8</u> mg/L at <u>22.5</u> °C Reading <u>83</u> mg/L at <u>22.8</u> °C Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>Resid Purg 1012</u>
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WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1005</u>	-	-	-	-	-	-	-	-	-	<u>37.02</u>
<u>1025</u>	<u>95</u>	<u>4.10</u>	<u>0.57</u>	<u>7.0</u>	<u>4.2</u>	<u>24.0</u>	<u>295</u>	-	-	<u>37.09</u>
<u>1030</u>	<u>95</u>	<u>4.08</u>	<u>0.57</u>	<u>4.5</u>	<u>4.0</u>	<u>24.0</u>	<u>298</u>	-	-	<u>37.16</u>
<u>1035</u>	<u>95</u>	<u>4.04</u>	<u>0.57</u>	<u>3.6</u>	<u>3.9</u>	<u>24.2</u>	<u>301</u>	-	-	<u>37.22</u>
<u>1040</u>	<u>95</u>	<u>4.03</u>	<u>0.57</u>	<u>4.2</u>	<u>3.9</u>	<u>24.2</u>	<u>303</u>	-	-	<u>37.29</u>

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)			(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-09</u>	<u>4-24-09</u>	<u>1040</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET										
Well ID: <u>MW-2008-10</u>	Screen Set:	Depth to Water: <u>32.46'</u>	GWS QTR <u>2</u>							
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>4-22-09</u>	Page <u>1</u> of <u>1</u>							
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>T6C</u>								
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume								
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft										
FIELD INSTRUMENT CALIBRATION										
Ph: pH: 4.00 = <u>4.0</u> at <u>23.3</u> °C	Turbidity: NTU: 0 = Reading <u>0</u>		NTU: 100 = Reading <u>100.0</u>							
Conductivity: Standard <u>0.49</u> S/cm at 25 °C	Reading <u>8.45</u> S/cm at <u>23.3</u> °C									
Dissolved Oxygen: Standard <u>8.39</u> mg/L at <u>23</u> °C	Reading <u>8.8</u> mg/L at <u>23.3</u> °C									
ORP: Standard <u>95</u> mV at <u>22</u> °C	Reading <u>88</u> mV at <u>22.8</u> °C									
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)										<u>Beq's Pumping 1340</u>
WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1335</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>32.46</u>
<u>1350</u>	<u>100</u>	<u>5.29</u>	<u>0.9</u>	<u>22.8</u>	<u>5.6</u>	<u>25.7</u>	<u>260</u>	<u>-</u>	<u>-</u>	<u>32.56</u>
<u>1355</u>	<u>90</u>	<u>5.13</u>	<u>0.9</u>	<u>22.3</u>	<u>5.0</u>	<u>26.2</u>	<u>274</u>	<u>-</u>	<u>-</u>	<u>32.57</u>
<u>1400</u>	<u>90</u>	<u>5.09</u>	<u>0.9</u>	<u>22.5</u>	<u>5.0</u>	<u>26.1</u>	<u>281</u>	<u>-</u>	<u>-</u>	<u>32.58</u>
<u>1405</u>	<u>90</u>	<u>5.04</u>	<u>0.96</u>	<u>23.1</u>	<u>4.8</u>	<u>26.1</u>	<u>287</u>	<u>-</u>	<u>-</u>	<u>32.59</u>
<u>1410</u>	<u>90</u>	<u>5.03</u>	<u>0.95</u>	<u>23.4</u>	<u>4.7</u>	<u>26.1</u>	<u>291</u>	<u>-</u>	<u>-</u>	<u>32.60</u>
NOTES:										
Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)				(+/- 0.3 ft.)
SAMPLE COLLECTION										
Sampling Method (✓): <input type="checkbox"/> Dedicated Pump <input type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailer <input checked="" type="checkbox"/> Low Flow/Micropurge <input type="checkbox"/> Bennett <input type="checkbox"/> Other										
Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments	
<u>MW-2008-10</u>	<u>4-22-09</u>	<u>1410</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>	
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>	
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>	
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>	
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>	
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>	
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>	
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>	
"VRP SUITE"										
Samplers Signature(s): _____										
Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha										
Wet Chemistry - Raw: alkalinity as CaCO ₃ , conductivity @25C, pH, and TDS (ratio-measured/calculated)										
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate										
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO ₃ ; Cations: calcium, magnesium, potassium, and sodium										

SAMPLING DATA SHEET

Well ID: <u>MW-2008-11</u>	Screen Set:	Depth to Water: <u>17.26</u>	GWS QTR <u>2</u>
Project Name: FMI Siemita	Well Diameter:	Date Measured: <u>4-23-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth:	Measured From: <u>TDC</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.97 at 22.3 °C Turbidity: NTU: 0 = Reading 0.4 NTU: 100 = Reading 101.0

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 22.3 °C

Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 6.8 mg/L at 22.3 °C

ORP: Standard 95 mV at 20 °C Reading 91 mg/L at 22.4 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-23-09 @ 0925 Begin 0914

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0845</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>17.26</u>
<u>0925</u>	<u>125</u>	<u>5.01</u>	<u>0.27</u>	<u>27.0</u>	<u>6.3</u>	<u>22.8</u>	<u>258</u>	<u>-</u>	<u>-</u>	<u>17.43</u>
<u>0930</u>	<u>90</u>	<u>4.91</u>	<u>0.27</u>	<u>28.2</u>	<u>6.1</u>	<u>23.1</u>	<u>273</u>	<u>-</u>	<u>-</u>	<u>17.40</u>
<u>0935</u>	<u>90</u>	<u>4.86</u>	<u>0.27</u>	<u>29.9</u>	<u>6.1</u>	<u>23.0</u>	<u>281</u>	<u>-</u>	<u>-</u>	<u>17.40</u>
<u>0940</u>	<u>90</u>	<u>4.84</u>	<u>0.27</u>	<u>30.9</u>	<u>6.1</u>	<u>23.2</u>	<u>287</u>	<u>-</u>	<u>-</u>	<u>17.39</u>
<u>0945</u>	<u>90</u>	<u>4.82</u>	<u>0.27</u>	<u>32.6</u>	<u>6.0</u>	<u>23.2</u>	<u>292</u>	<u>-</u>	<u>-</u>	<u>17.40</u>
<u>0950</u>	<u>90</u>	<u>4.82</u>	<u>0.27</u>	<u>32.8</u>	<u>6.1</u>	<u>23.3</u>	<u>295</u>	<u>-</u>	<u>-</u>	<u>17.40</u>

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-11</u>	<u>4-23-09</u>	<u>0950</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>N/A</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
<u>"VRP SUITE"</u>									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>MW-2008-12</u>	Screen Set:	Depth to Water: <u>128.28'</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>5-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TC</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>3.99</u> at <u>23.4</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>70.7</u>
Conductivity: Standard <u>4.49</u> µS/cm at 25 °C	Reading <u>4.49</u> mS/cm at <u>23.4</u> °C
Dissolved Oxygen: Standard <u>8.25</u> mg/L at <u>24</u> °C	Reading <u>8.8</u> mg/L at <u>23.4</u> °C
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>82</u> mg/L at <u>23.3</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>5-7-09 @ 0732 hrs / 0957 Pump on</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1030</u>	<u>55</u>	<u>6.58</u>	<u>2.68</u>	<u>4.4</u>	<u>5.2</u>	<u>26.8</u>	<u>100</u>	-	-	<u>128.30</u>
<u>1035</u>	<u>55</u>	<u>6.58</u>	<u>2.67</u>	<u>0.0</u>	<u>4.1</u>	<u>26.5</u>	<u>108</u>	-	-	<u>128.34</u>
<u>1040</u>	<u>55</u>	<u>6.60</u>	<u>2.68</u>	<u>0.0</u>	<u>3.6</u>	<u>26.6</u>	<u>107</u>	-	-	<u>128.39</u>
<u>1045</u>	<u>55</u>	<u>6.59</u>	<u>2.65</u>	<u>0.0</u>	<u>3.2</u>	<u>26.8</u>	<u>109</u>	-	-	<u>128.43</u>
<u>1050</u>	<u>55</u>	<u>6.58</u>	<u>2.67</u>	<u>0.0</u>	<u>3.0</u>	<u>27.0</u>	<u>109</u>	-	-	<u>128.49</u>
<u>1055</u>	<u>55</u>	<u>6.59</u>	<u>2.69</u>	<u>0.0</u>	<u>2.4</u>	<u>26.3</u>	<u>107</u>	-	-	<u>128.</u>

NOTES: DO not stable.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-12</u>	<u>5-7-09</u>	<u>1055</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-13	Screen Set:	Depth to Water: 59.50	GWS QTR 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 5-6-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 23.5 °C	Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 74.9
Conductivity: Standard 4.49 µS/cm at 25 °C	Reading 4.49 mS/cm at 23.5 °C
Dissolved Oxygen: Standard 8.25 mg/L at 24 °C	Reading 8.7 mg/L at 23.5 °C
ORP: Standard 89 mV at 25 °C	Reading 92 mg/L at 23.3 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-6-09 @ 0725	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0910	~	~	~	~	~	~	~	~	~	59.50
0950	95	6.09	0.001	75.0	8.6	32.5	104	-	-	59.45
0955	95	5.56	0.001	68.6	8.9	31.2	120	-	-	60.54
1005	95	5.34	0.001	59.9	9.1	29.9	103	-	-	60.64
1010	95	5.32	0.001	56.1	9.1	29.5	99	-	-	60.72
1015	65	5.33	0.001	55.1	9.1	29.4	98	-	-	60.77
1020	65	5.39	0.001	54.3	9.0	29.7	99	-	-	60.81
(The following rows are crossed out with a large diagonal line.)										

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NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-13	5-6-09	1020	✓✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
MW-2008-13D	5-6-09	1025	✓✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			NO NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): *[Signatures]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-15</u>	Screen Set:	Depth to Water: <u>78.68</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>5-8-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.4 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 79.4
 Conductivity: Standard 4.49 μ S/cm at 25 °C Reading 4.49 μ S/cm at 23.4 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.7 mg/L at 23.4 °C
 ORP: Standard 89 mV at 25 °C Reading 80 mg/L at 23.2 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-8-09 @ 0735 0910 Regis Pumping

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond μ S/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0832</u>	<u>60</u>	-	-	-	-	-	-	-	-	<u>78.68</u>
0928	60	6.70	0.0	69.0	9.3	29.3	7	-	-	78.55
0930	60	6.67	0.0	68.8	9.5	28.5	7	-	-	78.66
<u>0935</u>	<u>60</u>	<u>6.24</u>	<u>1.38</u>	<u>11.6</u>	<u>5.9</u>	<u>27.0</u>	<u>41</u>	-	-	<u>78.62</u>
<u>0940</u>	<u>60</u>	<u>6.58</u>	<u>1.40</u>	<u>12.8</u>	<u>3.5</u>	<u>24.4</u>	<u>57</u>	-	-	<u>78.68</u>
<u>0945</u>	<u>60</u>	<u>6.58</u>	<u>1.39</u>	<u>16.0</u>	<u>2.7</u>	<u>26.7</u>	<u>74</u>	-	-	<u>78.73</u>
<u>0950</u>	<u>60</u>	<u>6.59</u>	<u>1.40</u>	<u>13.5</u>	<u>2.6</u>	<u>26.7</u>	<u>75</u>	-	-	<u>78.77</u>
<u>0955</u>	<u>60</u>	<u>6.60</u>	<u>1.39</u>	<u>14.0</u>	<u>2.2</u>	<u>26.8</u>	<u>82</u>	-	-	<u>78.81</u>
<u>1000</u>	<u>60</u>	<u>6.62</u>	<u>1.39</u>	<u>13.8</u>	<u>2.2</u>	<u>27.0</u>	<u>82</u>	-	-	<u>78.85</u>

Cover on probe.

NOTES: Well did not recover in 72 hours.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-15</u>	<u>5-8-09</u>	<u>1000</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signatures]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>TW-2028-10</u>	Screen Set:	Depth to Water: <u>7.55</u>	GWS QTR: <u>2</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>4-23-09.</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth:	Measured From: <u>TOC</u>	
Task Code: 10015	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.97 at 22.7 °C Turbidity: NTU: 0 = Reading 0.4 NTU: 100 = Reading 101.0
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 22.3 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.8 mg/L at 22.3 °C
 ORP: Standard 95 mV at 20 °C Reading 91 mg/L at 22.4 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-23-09 0725

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1320</u>	<u>500 ml/min</u>	<u>3.83</u>	<u>2.5</u>	<u>691</u>	<u>4.0</u>	<u>23.5</u>	<u>200</u>	-	-	<u>7.55</u>

NOTES: Water reddish brown. Well Produces Good.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other Portable

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>TW-2028-10</u>	<u>4-23-09</u>	<u>1320</u>	<u>✓</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<u>✓</u>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<u>✓</u>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<u>✓</u>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<u>NO</u>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<u>NO</u>	40 mL VOA	3	HCL	No	VOC	ACZ
			<u>✓</u>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<u>✓</u>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 228, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>TW-2008-11</u>	Screen Set:	Depth to Water: <u>9.24</u>	GWS QTR <u>2</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>4-14-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth:	Measured From: <u>TOC</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>3.97</u> at <u>22.3</u> °C	Turbidity: NTU: 0 = Reading <u>0.4</u> NTU: 100 = Reading <u>101.0</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.45</u> S/cm at <u>22.3</u> °C
Dissolved Oxygen: Standard <u>8.39</u> mg/L at <u>23</u> °C	Reading <u>8.8</u> mg/L at <u>22.3</u> °C
ORP: Standard <u>95</u> mV at <u>20</u> °C	Reading <u>91</u> mg/L at <u>22.4</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>4-23-09 @ 0725</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1125</u>	<u>~500</u>	<u>3.63</u>	<u>1.6</u>	<u>47.3</u>	<u>3.3</u>	<u>23.3</u>	<u>248</u>	<u>-</u>	<u>-</u>	<u>N/A</u>

NOTES: unable to get sounder in well, 4-23-09 WPH Produces Good.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other Peristaltic

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>TW-2008-11</u>	<u>4-23-09</u>	<u>1125</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dsld.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dsld.</u>	<u>ACZ-Green Dot</u>
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>TW-2008-13</u>	Screen Set:	Depth to Water: <u>12.50</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>5-21-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 23.0 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 74
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 4.49 mS/cm at 23.0 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.7 mg/L at 23.0 °C
 ORP: Standard 95 mV at 23 °C Reading 82 mg/L at 22.9 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-21-09 @ 0815

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond <small>m (S/cm)</small>	Turbidity <small>(NTU)</small>	Dissolved Oxygen <small>(mg/L)</small>	Temp °C	Eh/ORP <small>(mV)</small>	Gallons Purged	Casing Vol.	Depth to Water
<u>0905</u>	<u>-</u>	<u>6.07</u>	<u>4.38</u>	<u>0.1</u>	<u>9.2</u>	<u>19.4</u>	<u>51</u>	<u>-</u>	<u>-</u>	<u>12.50</u>

NOTES: Peristaltic pump: No purge. Pumps dry but recovers quickly.

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>TW-2008-13</u>	<u>5-21-09</u>	<u>0905</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfats
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, chromium, cobalt, copper, iron, lead, manganese,
 mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: BW-2	Screen Set:	Depth to Water: 12.70	GWS QTR 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-8-09	Page 1 of 1
Project Number: 24096838	Total Depth: 95	Measured From: S.T	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 53.73	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.00** at **22.6** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **92.8**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **22.6** °C
 Dissolved Oxygen: Standard **8.39** mg/L at **23** °C Reading **8.8** mg/L at **22.6** °C
 ORP: Standard **95** mV at **23** °C Reading **92** mg/L at **22.8** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **113 By K. Vault 4/8/09 1314 Pump on**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1315	4/6PM	6.51	0.9	947	2.4	23.7	-90	4	-	-
1318	4	7.16	0.9	203	2.7	23.7	-183	16	0.29	19.70
1320	4	7.17	0.9	188	2.5	23.7	-195	20	0.37	22.6
1325	4	7.15	0.9	190	2.4	23.9	-206	40	0.74	32.2
1330	4	7.12	0.9	167	2.1	23.9	-190	60	1.11	42.9
1335	4	7.0	0.9	277	0.2	23.9	-173	80	1.48	56.59
1340	4	6.70	0.9	896	4.2	24.0	-91	100	1.86	49.82
1345	4	6.58	0.9	<1000	3.9	24.2	-92	120	2.23	74.63
1350	4	6.55	0.9	<1000	3.4	24.2	-95	140	2.60	NA
1352	4	6.52	0.9	<1000	1.3	24.4	-97	148	2.75	NA
-		Well Dry @ 1352 - Rust colored water.								
4/27/09 - 1131		Well not sampled w/in 72 hours - Return to pump dry.								
1135	10	6.66	1.0 S/m	344	5.2	23.4	-81	30	0.58	-
1140	10	6.61	1.0 v	216	4.5	23.4	-91	80	1.48	36.62
1145	10	6.56	1.0 v	214	4.3	23.4	-92	130	2.51	47.20
1150	10	6.46	0.9	71000	4.3	23.4	-92	180	3.48	83.00
↳		Well Dry.								
4-30-09 0930	-	5.75	9000	560	8.5	23.7	95	-	-	16.2 static

NOTES: **Sampled by FMI - See FMI logbook.**

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
BW-2	4-30-09	0930	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
Ambient TB			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: BW-3	Screen Set:	Depth to Water: 28.13'	GWS QTR: 2
Project Name: FMI Sierra	Well Diameter:	Date Measured: 4-28-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: S.T	
Task Code: 10015	Dedicated Pump:	Well Volume: 1 CV = 42.35	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 21.8 °C	Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 85.3
Conductivity: Standard 0.449 S/cm at 25 °C	Reading 0.45 S/cm at 21.8 °C
Dissolved Oxygen: Standard 8.53 mg/L at 22 °C	Reading 8.7 mg/L at 21.9 °C
ORP: Standard 95 mV at 20 °C	Reading 77 mg/L at 22.2 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1004	12	7.16	0.46	5.9	1.6	22.9	-190	12	0.28	
1006	12	7.23	0.45	-	1.5	22.8	-203	36	0.85	44.84
1008	12	7.24	0.45	0.0	0.9	22.8	-210	84 60	1.41	52.23
1010	12	7.23	0.45	0.0	1.3	22.8	-216	84	1.98	58.87
1015	12	7.10	0.44	22.6	0.9	22.9	-160	144	3.40	78.44
1020	6	6.83	0.44	52.3	5.3	23.3	-83	174	4.10	79.91
1022	6	Well Dry			1022	6.8	-	-	-	-
43009 1015	-	6.35	9000	55.3	9.5	23.4	88	-	-	28.3 static

NOTES: *Sample collect by FMI. Sample notes from FMI Logbook.*

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
BW-3	43009	1015	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
Ambient TB			✓	40 mL VOA	3	HCL	No	VOC	ACZ
DUP 20090430A			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
"VRP SUITE"			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium



SAMPLING DATA SHEET

Well ID: <u>BW-4</u>	Screen Set:	Depth to Water: <u>16.00 / 16.43 / Pump</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>4-6-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = H₂O at 22.2 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading NA

Conductivity: Standard 0.449 S/cm at 25 °C Reading 2.46 S/cm at 22.2 °C

Dissolved Oxygen: Standard 8.53 mg/L at 22 °C Reading 9.0 mg/L at 22.2 °C

ORP: Standard 95 mV at 22 °C Reading 69 mg/L at 22.2 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate (mL/min)	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1523</u>	<u>50</u>	<u>4.4</u>	<u>0.61</u>	<u>52</u>	<u>4.4</u>	<u>26.0</u>	<u>295</u>		<u>7.11L</u>	<u>16.43</u>
	<u>excused drawdown - must Bail Sample</u>									
<u>0800</u>	<u>- Begin Bailing Sample in 5gal Bucket</u>									
<u>1425</u>	<u>- Bail</u>									
<u>1000</u>	<u>- Bail</u>									
<u>1040</u>	<u>Collect Sample ALS Paragon - 2, 16al Polys</u>									
<u>1110</u>	<u>- Bail</u>									
<u>1330</u>	<u>- Bail - Collect Sample ACZ, 3,250mL, 250</u>									

4-14-09
4-14-09
4-15-09
4-15-09

Static

NOTES:

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>BW-4</u>	<u>4-15-09</u>	<u>1040</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
<u>BW-4</u>	<u>4-15-09</u>	<u>1330</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature] X = BW-4 4-15-09 @ 1330 hrs

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-14</u>	Screen Set:	Depth to Water: <u>424.90</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>S.F. 4-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>501</u>	Measured From: <u>S.F. ↓</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume <u>112</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.98 at 22.8 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 100.0
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.44 S/cm at 22.8 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.9 mg/L at 22.8 °C
 ORP: Standard 95 mV at 23 °C Reading 69 mg/L at 21.7 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-7-09 8:30 ump on 1007

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1010</u>	<u>10</u>	<u>7.19</u>	<u>0.31</u>	<u>213</u>	<u>1.0</u>	<u>26.8</u>	<u>-214</u>	<u>30</u>	<u>0.26</u>	<u>-</u>
<u>1015</u>	<u>10</u>	<u>6.90</u>	<u>0.33</u>	<u>179.0</u>	<u>3.1</u>	<u>28.0</u>	<u>1</u>	<u>80</u>	<u>0.71</u>	<u>427.20</u>
<u>1020</u>	<u>10</u>	<u>6.79</u>	<u>0.34</u>	<u>78.6</u>	<u>3.4</u>	<u>28.5</u>	<u>52</u>	<u>130</u>	<u>1.16</u>	<u>426.90</u>
<u>1030</u>	<u>10</u>	<u>6.77</u>	<u>0.35</u>	<u>157</u>	<u>3.2</u>	<u>28.7</u>	<u>86</u>	<u>230</u>	<u>2.05</u>	<u>426.50</u>
<u>1040</u>	<u>10</u>	<u>6.76</u>	<u>0.37</u>	<u>171</u>	<u>5.8</u>	<u>28.7</u>	<u>98</u>	<u>330</u>	<u>2.94</u>	<u>426.45</u>
<u>1045</u>	<u>10</u>	<u>6.76</u>	<u>0.39</u>	<u>169</u>	<u>5.6</u>	<u>28.7</u>	<u>102</u>	<u>380</u>	<u>3.39</u>	<u>426.50</u>

NOTES:

<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
Stabilization	(+/- 10%)	(+/- 0.1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)				(+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-14</u>	<u>4-7-09</u>	<u>1045</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

"VRP SUITE"

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-15W	Screen Set:	Depth to Water: 392	GWS QTR 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 466	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 108.69	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **3.98** at **22.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **100**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.44** S/cm at **22.8** °C

Dissolved Oxygen: Standard **8.39** mg/L at **23** °C Reading **8.9** mg/L at **22.8** °C

ORP: Standard **95** mV at **23** °C Reading **69** mg/L at **21.7** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **1214 Pump On**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1217	6	7.40	0.54	51.0	1.6	25.3	-103	18	0.16	-
1220	<1	7.33	0.50	57.3	2.4	25.6	-112	19	0.17	392.8
1226	<1	7.30	0.57	76.1	3.0	25.7	-94	20	0.18	-
1226	-	-	Pump not Producing - Shut Down NO SAMPLE ok 4-7-09							
5-6-09 1512	12.5	6.01	3.57	698	1.05	25.6	69	-	-	390.25 Static
1518	12.5	6.11	3.51	136	1.12	24.4	77	73	-	-
1524	12.5	6.03	3.52	172	1.03	24.6	75	146	-	-
1530	12.5	6.00	3.51	212	0.98	24.6	76	220	-	-

NOTES: **Sampled by FMI, Sampling notes from FMI Logbook**

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-15W	5-6-09	1530	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
Ambient			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-16W	Screen Set:	Depth to Water: 358.60	GWS QTR: 2
Project Name: FMI Sierra	Well Diameter: 6	Date Measured:	Page 1 of 1
Project Number: 24096838	Total Depth: 460	Measured From:	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 034.25	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **3.98** at **22.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **100**

Conductivity: Standard **0.149** S/cm at 25 °C Reading **0.44** S/cm at **22.8** °C

Dissolved Oxygen: Standard **8.39** mg/L at **23** °C Reading **8.9** mg/L at **22.8** °C

ORP: Standard **95** mV at **23** °C Reading **69** mg/L at **21.7** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **Pump 2H 1422**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1425	30	7.50	0.13	149	7.3	35.4	145	90	0.67	361.9
1430	30	7.22	0.09	53.4	4.1	29.7	123	240	1.78	361.4
1435	30	7.07	0.09	90.3	5.1	28.4	133	390	2.90	361.4
1440	30	7.01	0.09	75.9	6.0	28.3	147	540	4.02	361.3

NOTES:

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-16W	4-7-09	1440	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
VRP SUITE									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-17	Screen Set:	Depth to Water: 54.00	GWS QTR 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-27-09	Page 1 of 1
Project Number: 24096838	Total Depth: 106	Measured From: S.F.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 1 CV = 38.6	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **21.4** °C Turbidity: NTU: 0 = Reading **0.1** NTU: 100 = Reading **82.5**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **21.4** °C

Dissolved Oxygen: Standard **9.21** mg/L at **19** °C Reading **9.0** mg/L at **21.4** °C

ORP: Standard **95** mV at **20** °C Reading **81** mg/L at **21.9** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4/29 @ 0750** **1258 Pump On**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge GPM	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EvORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1300	2	6.64	0.18	2.1	1.7	22.8	44	~ 10	0.25	-
1310	2	6.51	0.17	3.2	1.6	23.5	43	30	0.77	71.00
1320	2	6.47	0.17	1.8	0.8	24.0	50	50	1.29	84.49
1330	2	6.45	0.17	2.9	0.8	24.3	58	70	1.82	96.30
1340	2	6.44	0.17	4.5	1.3	24.1	60	90	2.33	106.30
1342	Well Dry									
1405	-	6.73	1900	0.0	7.6	22.8	142	-	-	58.5

4-28-09

Static

NOTES: **Sample by FMI. See FMI logbook.**

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-17	4-28-09	1405	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
Ambra TB			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 228, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residua filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET										
Well ID: <u>MA-18</u>	Screen Set:	Depth to Water: <u>63.43</u>	GWS QTR <u>2</u>							
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>5-20-09</u>	Page <u>1</u> of <u>1</u>							
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>S.T.</u>								
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume: <u>76.1</u>								
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft										
FIELD INSTRUMENT CALIBRATION										
Ph: pH: 4.00 = <u>4.01</u> at <u>23.8</u> °C	Turbidity: NTU: 0 = Reading <u>0</u> NTU: 100 = Reading <u>95.6</u>									
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at _____ °C									
Dissolved Oxygen: Standard <u>8.28</u> mg/L at _____ °C	Reading <u>8.6</u> mg/L at <u>23.8</u> °C									
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>78</u> mV at <u>23.8</u> °C									
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)	Pump # <u>0856</u>									
WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0856</u>	<u>10</u>	<u>5.91</u>	<u>1.45</u>	<u>1.6</u>	<u>2.2</u>	<u>23.01</u>	<u>142</u>	<u>0</u>		<u>-</u>
<u>0904</u>	<u>10</u>	<u>6.34</u>	<u>1.33</u>	<u>0</u>	<u>1.8</u>	<u>23.1</u>	<u>140</u>	<u>80</u>		<u>-</u>
<u>0912</u>	<u>10</u>	<u>6.31</u>	<u>1.31</u>	<u>0</u>	<u>2.1</u>	<u>23.2</u>	<u>143</u>	<u>160</u>		<u>-</u>
<u>0920</u>	<u>10</u>	<u>6.31</u>	<u>1.28</u>	<u>0</u>	<u>2.7</u>	<u>23.3</u>	<u>144</u>	<u>240</u>		<u>-</u>
NOTES:	<u>Sampled by FMI - notes from FMI Logbook</u>									
Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)				(+/- 0.3 ft.)
SAMPLE COLLECTION										
Sampling Method (✓): <input checked="" type="checkbox"/> Dedicated Pump <input type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailer <input type="checkbox"/> Low Flow/Micropurge <input type="checkbox"/> Bennett <input type="checkbox"/> Other										
Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments	
<u>MA-18</u>	<u>5-20-09</u>	<u>0920</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>	
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>	
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>	
<u>Ambient</u>			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>	
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>	
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>	
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>	
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>	
"VRP SUITE"										
Samplers Signature(s): _____										
Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha Wet Chemistry - Raw: alkalinity as CaCO ₃ , conductivity @25C, pH, and TDS (ratio-measured/calculated) Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO ₃ : Cations: calcium, magnesium, potassium, and sodium										

SAMPLING DATA SHEET

Well ID: MH-19	Screen Set:	Depth to Water: 11.07	GWS QTR 2
Project Name: FMI Sierra	Well Diameter:	Date Measured: 4-9-09	Page 1 of 1
Project Number: 24096838	Total Depth: 70	Measured From:	
Task Code: 10015	Dedicated Pump: Kes	Well Volume 38.5	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **5.83** at **19.3** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **100.0**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.43** S/cm at **19.3** °C
 Dissolved Oxygen: Standard **9.01** mg/L at **19** °C Reading **8.2** mg/L at **19.3** °C
 ORP: Standard **95** mV at **20** °C Reading **106** mg/L at **21** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-9-09 0730 hrs 0836 Pump ON**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0837	10	5.99	0.19	105	3.3	22.9	139	10	0.26	12.75
0840	10	6.14	0.18	63.9	2.4	23.2	141	40	1.03	12.95
0844	10	6.12	0.17	36.4	2.3	23.6	150	80	2.07	13.25
0849	10	6.10	0.16	42.3	2.3	23.8	156	120	3.11	13.13
0850	10	6.09	0.16	115.0	2.3	23.6	157	130	3.37	12.98

Pump down 1 min.

NOTES:

Stabilization ~~(+/- 10%)~~ ~~(+/- 1 deg.)~~ ~~(+/- 10 mV)~~ ~~(+/- 1)~~ ~~(+/- 5%)~~ ~~(+/- 10%)~~ ~~(+/- 0.3 ft.)~~

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-19	4-9-09	0850	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-20	Screen Set:	Depth to Water: 53.05	GWS QTR 2
Project Name: FMI Sierra	Well Diameter:	Date Measured: 4-27-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **21.4** °C Turbidity: NTU: 0 = Reading **0.1** NTU: 100 = Reading **82.5**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **21.4** °C s/m
 Dissolved Oxygen: Standard **9.01** mg/L at **19** °C Reading **9.0** mg/L at **21.4** °C
 ORP: Standard **95** mV at **20** °C Reading **81** mg/L at **20.9** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-27-09 1750**

0856 Regis Pumping

WELL PURGING AND STABILIZATION PARAMETERS

Time	GPM Discharge Rate	pH	Spec. Cond (S/M)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0900	1.2	6.75	0.18	8.8	6.7	22.0	165	-	-	55.61
0905	1.2	7.11	0.18	10.6	6.5	23.0	169	-	-	62.30
0915	1.2	7.14	0.18	12.1	6.6	23.6	180	-	-	71.80
0925	1.2	7.15	0.18	10.3	6.6	23.8	188	-	-	80.40
0935	1.2	7.18	0.18	9.1	6.6	23.9	195	-	-	89.45
1005	1.2	7.20	0.18	14.9	6.4	23.8	196	-	-	115.10
1035	1.2	7.14	0.18	15.4	6.6	24.2	207	-	-	139.80
1105	0.8	7.20	0.18	42.4	6.4	24.3	214	-	-	164.82
1117	0.8	7.19	0.16	48.1	6.4	24.3	216	-	-	164.79
<i>4/30/09</i>	<i>WELL DRY</i>									
0858	-	6.54	1.66	80.7	8.6	23.9	189	-	-	159.85

NOTES:

Sampled by FMI, sample notes from FMI logbook.

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-20	4-27-09	0858	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
Ambient			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese,

mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-21</u>	Screen Set:	Depth to Water: <u>35.80</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>4-6-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>72.0</u>	Measured From: <u>Sounding Tube</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume <u>27.53</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 11.0 at 22.2 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading NA
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.46 S/cm at 22.2 °C
 Dissolved Oxygen: Standard 6.53 mg/L at 22 °C Reading 9.0 mg/L at 22.2 °C
 ORP: Standard 95 mV at 22 °C Reading 69 mg/L at 22.2 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-6-09 by K.V.

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1304</u>	<u>9</u>	<u>6.8</u>	<u>0.33</u>	<u>6</u>	<u>7.7</u>	<u>23.2</u>	<u>99</u>			<u>35.80</u>
<u>1307</u>	<u>9</u>	<u>6.8</u>	<u>0.32</u>	<u>4</u>	<u>7.7</u>	<u>23.0</u>	<u>86</u>			<u>60.15</u>
<u>1311</u>	<u>9</u>	<u>6.7</u>	<u>0.31</u>	<u>6</u>	<u>7.4</u>	<u>23.5</u>	<u>72</u>			<u>70.83</u>
<u>1312</u>		<u>Well Dry</u>								
<u>0835</u>	<u>-</u>	<u>6.36</u>	<u>0.34</u>	<u>68</u>	<u>9.8</u>	<u>21.4</u>	<u>97</u>			<u>35.9</u>

4-8-09

NOTES:

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-21</u>	<u>4-8-09</u>	<u>0835</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-23	Screen Set:	Depth to Water: 20.05	GWS QTR
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4/6/09	Page ___ of ___
Project Number: 24096838	Total Depth: 78	Measured From: TOC	
Task Code: 10015	Dedicated Pump:	Well Volume: 1CV = 37.83	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= **4.0** at **22.2** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **NA**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.46** S/cm at **22.2** °C
 Dissolved Oxygen: Standard **8.57** mg/L at **22** °C Reading **2.0** mg/L at **22.2** °C
 ORP: Standard **95** mV at **22** °C Reading **69** mg/L at **22.2** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-6-09 by K.V.**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
14:40	10	7.3	0.33	2	10.1	24.4	143	0		
14:44	10	7.1	0.34	1	10.0	23.4	102	40		46.40
14:48	10	6.9	0.34	5	9.8	23.4	41	80		69.30
14:50	10	7.0	0.34	33	10.0	23.0	35	100		
<i>Purged dry at 14:50</i>										
4-8-09 1025	-	6.76	0.32	80.4	7.6	24.7	224	-	-	17

NOTES:

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-23	4-8-09	1025	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-27	Screen Set:	Depth to Water: 18.92	GWS QTR 2
Project Name: FMI Sierra	Well Diameter:	Date Measured: 4-8-09	Page 1 of
Project Number: 24096838	Total Depth: 80	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 40	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= **4.00** at **22.6** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **98.8**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **22.6** °C
 Dissolved Oxygen: Standard **8.39** mg/L at **23** °C Reading **8.8** mg/L at **22.6** °C
 ORP: Standard **95** mV/L at **23** °C Reading **113** mg/L at **22.8** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **By K. Vault 4-8-09 1417 Pmp Or**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Elv/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1419	10	7.12	0.84	55.3	1.3	23.7	47	20	0.5	NA
1420	10	7.05	0.75	48.8	0.9	23.7	44	30	0.75	NA
1425	10	6.95	0.56	44.2	0.7	23.6	39	80	2.0	42.85
1429	10	6.89	0.51	61.7	1.0	23.7	33	120	3.0	68.00

NO Control Flow Valve - Pump is wide open. Filled 5 gallon bucket at 1429 for sample holding.

NOTES:

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-27	4-8-09	1429	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): *[Signature]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH28	Screen Set:	Depth to Water: 401.06	GWS QTR: 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 492	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Y	Well Volume: 59.4	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **3.98** at **22.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **100.0**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.44** S/cm at **22.8** °C
 Dissolved Oxygen: Standard **8.89** mg/L at 23 °C Reading **8.9** mg/L at **22.8** °C
 ORP: Standard **95** mV at 23 °C Reading **69** mg/L at **21.9** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-7-09 0730** **112.9 Pump ON**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate ^{PS}	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged ^{PS}	Casing Vol. ^{PS 1.01}	Depth to Water
1132	20 20	7.49	0.48	89.3	1.6	26.2	120	4560	0.75	425
1135	20 20	7.41	0.71	704.1	1.9	26.2	8	120	2.02	425.79
1138	20	6.89	0.64	382	3.8	26.2	37	180	3.03	425.79
1140	20	6.84	0.63	256	3.7	26.4	41	220	3.70	425.78

NOTES:

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH28	4-7-09	1140	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>MH-29</u>	Screen Set:	Depth to Water: <u>379.9</u>	GWS QTR <u>2</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>4-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>475</u>	Measured From: <u>S.T.</u>	
Task Code: 10015	Dedicated Pump: <u>K05</u>	Well Volume: <u>62.08</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.98 at 22.8 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 100
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.44 S/cm at 22.8 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.9 mg/L at 22.8 °C
 ORP: Standard 95 mV at 23 °C Reading 69 mV at 21.7 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1324</u>	<u>15</u>	<u>7.40</u>	<u>0.88</u>	<u>38.4</u>	<u>2.9</u>	<u>25.5</u>	<u>103</u>			<u>379.9</u>
<u>1328</u>	<u>15</u>	<u>7.04</u>	<u>0.61</u>	<u><1000</u>	<u>0.5</u>	<u>25.9</u>	<u>-114</u>			<u>380.87</u>
<u>1332</u>	<u>15</u>	<u>6.89</u>	<u>0.58</u>	<u>882</u>	<u>0.5</u>	<u>26.2</u>	<u>-104</u>			<u>380.7</u>
<u>1336</u>	<u>15</u>	<u>6.84</u>	<u>0.75</u>	<u>201</u>	<u>0.10</u>	<u>26.4</u>	<u>-64</u>			<u>380.8</u>
<u>1342</u>	<u>15</u>	<u>6.80</u>	<u>0.77</u>	<u>79.5</u>	<u>2.1</u>	<u>26.4</u>	<u>-37</u>			<u>380.75</u>

NOTES:

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-29</u>	<u>4-7-09</u>	<u>1342</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 228, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese,

mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

* Dup 2009040715 & 1342

SAMPLING DATA SHEET

Well ID: MH-30	Screen Set:	Depth to Water: 415.10	GWS QTR: 2
Project Name: FMI Sierrita	Well Diameter: 5"	Date Measured: 4-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 535	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 122.3	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = ~~4.4~~ at **22.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **100.0**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.44** S/cm at **22.8** °C

Dissolved Oxygen: Standard **8.39** mg/L at **23** °C Reading **8.9** mg/L at **22.8** °C

ORP: Standard **95** mV at **22** °C Reading **69** mg/L at **21.7** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **Pump ON 0844**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged OR	Casing Vol.	Depth to Water
0845	10	6.84	0	117	9.8	24.7	44	10	0.08	427.7
0850	10	6.87	0	111	9.1	27.2	38	60	0.49	429.05
0900	10	6.89	0	107	8.7	29.1	30	160	1.30	429.30
0910	10	6.82	0	103	8.8	29.6	32	260	2.12	429.45
0915	10	6.81	0.32	22.9	5.3	29.6	107	310	2.53	429.48
0918	10	6.86	0.32	22.8	5.6	29.6	116	340	2.78	429.48
0920	10	6.86	0.32	23.7	5.5	29.4	120	370	3.02	429.48
0925	10	6.81	0.34	24.6	5.6	29.5	122	420	3.43	429.42

NOTE = Moisture Cap on From 0845 to 0910

NOTES:

Stabilization	(± 10%)	(± 1 deg.)	(± 10 mV)	(± 1)	(± 5%)	(± 10%)	(± 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-30	4-7-09	0925	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
DUP-X			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
VRP SUITE									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (radio-measured/calculated) * DUP20090407A
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-1	Screen Set:	Depth to Water: 150.90	GWS QTR: 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-27-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump:	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.001 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.10 at 21.4 °C Turbidity: NTU: 0 = Reading 0.1 NTU: 100 = Reading 82.5

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.45 S/cm at 21.4 °C

Dissolved Oxygen: Standard 9.01 mg/L at 19 °C Reading 9.0 mg/L at 21.4 °C

ORP: Standard 95 mV/L at 20 °C Reading 81 mg/L at 21.9 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **1419 Start Pumping**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1423	0.5	6.70	0.09	79.3	8.1	29.0	140	-	-	153.93
1424	Compressor	out of	gas.	-	Pump still	on/air	built up.			
1425	0.3	6.68	0.09	55.7	7.6	28.7	139	-	-	154.30
1430	0.1	6.70	0.09	30.9	7.6	28.0	141	-	-	154.50
1435	0.1	6.70	0.09	24.6	7.7	27.7	145	-	-	154.47
1440	0.1	6.69	26 mS/cm	24.4	7.8	27.4	148	-	-	154.45
1445	0.1	6.70	0.09	25.1	7.8	27.2	149	-	-	154.43

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
			✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
Ambient TB			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): *[Signatures]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

99 mg/L = 0.095/m

SAMPLING DATA SHEET

Well ID: <u>PZ-2</u>	Screen Set:	Depth to Water: <u>45.25</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured:	
Project Number: <u>24096838</u>	Total Depth: <u>108</u>	Measured From:	Page <u>1</u> of <u> </u>
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>41.2</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.83 at 19.3 °C Turbidity: NTU: 0 = Reading 0.3 NTU: 100 = Reading 100
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.43 S/cm at 19.3 °C
 Dissolved Oxygen: Standard 9.01 mg/L at 19 °C Reading 8.2 mg/L at 19.3 °C
 ORP: Standard 95 mV at 20 °C Reading 106 mg/L at 21 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

0944 Pup on

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0945	3	5.92	0.9	91.5	5.6	23.9	129	3	0.072	54.10
0950	3	5.93	0.66	24.1	2.7	24.2	122	18	0.43	61.45
0955	3	5.90	0.65	24.1	2.6	24.5	123	33	0.80	71.65
0955 1000	3	5.85	0.64	24.5	1.9	24.6	126	48	1.16	79.50
1005	3	5.91	0.64	27.0	2.8	24.9	115	63.0	1.52	91.70
1010	3	5.85	0.64	26.5	2.3	25.0	126	78	1.89	102.65
1012	W-11 DRY									
4/28/ → 1302	15	6.35	0.82	49.6	0.7	25.8	123	15		-
1305	15	6.30	0.82	1.9	0.4	25.6	119			53.10
1308	15	6.28	0.82	1.5	0.6	26.0	118			65.80
1309	15	6.26	0.81	10.4	1.4	26.2	119			DRY
5-1-09 0950	-	6.5	0.99	7.6	8.7	24.6	152	-	-	50.5 static

NOTES:

Sampled by FMI. See FMI Logbook.

Stabilization (+/- 10%) (+/- 1 deg.) (+/- 10 mV) (+/- 1) (+/- 5%) (+/- 10%) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
			✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-4	Screen Set:	Depth to Water: 15.17	GWS QTR 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-28-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: S.T.	
Task Code: 10015	Dedicated Pump:	Well Volume LCU = 35.39	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.10** at **21.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **85.3**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **21.8** °C
 Dissolved Oxygen: Standard **8.53** mg/L at **22** °C Reading **8.7** mg/L at **21.8** °C
 ORP: Standard **95** mV at **20** °C Reading **77** mg/L at **22.2** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-28 @ 0730** **1105 Pump On**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1107	25	6.91	0.32	2.27	3.2	23.6	-137	50	1.41	42.50
1110	25	6.95	0.63	1.7	3.2	23.4	-132	125	3.53	42.50
1112	25	6.92	0.63	1.4	3.1	23.6	-123	175	4.94	59.20
1045	-	6.71	0.77	20.9	9.5	24.8	140	-	-	-

DRY-
4-30-09

NOTES: **Sampled by FMI. Sample notes from FMI logbook.**

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-4	4-30-09	1045	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
Ambient ID			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: PZ-5	Screen Set:	Depth to Water: 26.50	GWS QTR: 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-28-09	Page 1 of 1
Project Number: 24096838	Total Depth: 69	Measured From: ST	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 1 CV = 28.10	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **21.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **85.3**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **21.8** °C
 Dissolved Oxygen: Standard **8.53** mg/L at **22** °C Reading **8.7** mg/L at **21.8** °C
 ORP: Standard **95** mV at **20** °C Reading **77** mg/L at **22.2** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-28-09 0730** **12:30 Pump On**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1233	0.08	6.42	0.9	2.4	0.0	24.3	52	27	0.96	32.50
1235	0.09	6.53	0.9	0.0	0.0	24.2	39	45	1.60	35.50
1240	9.0	6.52	0.85	9.80	0.0	24.5	25	90	3.2	DRY.
1030	-	6.43	0.9	30.3	8.6	25.1	164	-	-	58.3

DRY
1239
5-1-09
4:30-09
RS

static

NOTES:

Sampled by FMI. Sample notes from FMI Logbook

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-5	5-1-09	1030	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
Ambient TB			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dsvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dsvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-6	Screen Set:	Depth to Water: 38.60	GWS QTR 2
Project Name: FMI Sierra	Well Diameter:	Date Measured: 4-28-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: S.T.	
Task Code: 10015	Dedicated Pump:	Well Volume: ICU ~ 26 gal	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **21.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **85.3**
 Conductivity: Standard **2449** S/cm at 25 °C Reading **8.45** S/cm at **21.8** °C
 Dissolved Oxygen: Standard **8.53** mg/L at **22** °C Reading **8.7** mg/L at **21.8** °C
 ORP: Standard **95** mV at **20** °C Reading **77** mg/L at **23.2** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4-28 @ 0730** **1212**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1215	20	5.92	0.99	43.0	2.4	23.4	188	-	-	-
1216	20	5.87	0.99	-	-	-	-	8003.07	80	-
1011	-	5.63	5000?	51.3	9.3	22.8	187	-	-	38.7 static

DRY @
4-29-09

NOTES: **Sampled by FMI, sample notes from FMI logbook.**

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-6	4-29-09	1011	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
Ambraut TB			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>PZ-7</u>	Screen Set:	Depth to Water: <u>139.8</u>	GWS QTR
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>4/6/09</u>	Page <u>1</u> of <u> </u>
Project Number: 24096838	Total Depth:	Measured From: <u>TOC</u>	
Task Code: 10015	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 7.00 at 22.2 °C Turbidity: NTU: 0 = Reading 2 NTU: 100 = Reading
 Conductivity: Standard 449 S/cm at 25 °C Reading 46 S/cm at 22.2 °C
 Dissolved Oxygen: Standard 8.53 mg/L at 22 °C Reading 9.0 mg/L at 22.2 °C
 ORP: Standard 95 mV at 22 °C Reading 69 mg/L at 22.2 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-6-09 by K.V.

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1040</u>	<u>50</u>	<u>7.0</u>	<u>0.11</u>	<u>4</u>	<u>8.5</u>	<u>24.0</u>	<u>136</u>			<u>139.94</u>
<u>1048</u>	<u>90</u>	<u>7.0</u>	<u>0.11</u>	<u>0</u>	<u>8.1</u>	<u>24.1</u>	<u>153</u>			<u>139.96</u>
<u>1050</u>	<u>90</u>	<u>7.0</u>	<u>0.11</u>	<u>0</u>	<u>8.9</u>	<u>24.2</u>	<u>158</u>			<u>140.00</u>
<u>1055</u>	<u>90</u>	<u>6.9</u>	<u>0.11</u>	<u>0</u>	<u>8.8</u>	<u>24.0</u>	<u>163</u>			<u>140.00</u>
<u>1100</u>	<u>90</u>	<u>6.9</u>	<u>0.11</u>	<u>0</u>	<u>8.7</u>	<u>24.2</u>	<u>167</u>			<u>140.02</u>

NOTES:

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
		<u>1100</u>	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signatures]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>P2-8</u>	Screen Set:	Depth to Water: <u>224.81</u>	GWS QTR <u>2</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>4-6-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>275</u>	Measured From: <u>ST</u>	
Task Code: 10015	Dedicated Pump: <u>Y</u>	Well Volume <u>1 CV = 32.76</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 22.2 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading NA

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.46 S/cm at 22.2 °C

Dissolved Oxygen: Standard 8.57 mg/L at 22 °C Reading 9.0 mg/L at 22.2 °C

ORP: Standard 96 mV at 22 °C Reading 69 mg/L at 22.2 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-6-09 by K.U.

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>13430</u>	<u>8gpm</u>	<u>6.8</u>	<u>0.10</u>	<u>320</u>	<u>9.5</u>	<u>24.3</u>	<u>-8</u>	<u>0</u>		<u>224.81</u>
<u>1350</u>	<u>8gpm</u>	<u>7.0</u>	<u>0.09</u>	<u>31</u>	<u>9.4</u>	<u>24.4</u>	<u>16</u>	<u>32</u>		<u>240.95</u>
<u>1352</u>	<u>8gpm</u>	<u>6.9</u>	<u>0.09</u>	<u>42</u>	<u>9.0</u>	<u>24.6</u>	<u>-14</u>	<u>48</u>		
<u>Purged dry at 1352</u>										
<u>0945</u>	<u>-</u>	<u>6.54</u>	<u>0.09</u>	<u>145</u>	<u>8.4</u>	<u>24.1</u>	<u>167</u>	<u>-</u>	<u>-</u>	<u>224.72</u>

RS
4-8-09

NOTES:

Stabilization	(+/- 10%)	(+/- 1 deg.)	(+/- 10 mV)	(+/- 1)	(+/- 5%)	(+/- 10%)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>P2-8</u>	<u>4-8-09</u>	<u>0945</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-16	Screen Set:	Depth to Water: 20.91	GWS QTR: 2
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 4-27-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: S.T.	
Task Code: 10015	Dedicated Pump:	Well Volume: ICV=38.6	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

pH: pH: 4.00 = **9.0** at **21.4** °C Turbidity: NTU: 0 = Reading **0.1** NTU: 100 = Reading **22.5**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.45** S/cm at **21.4** °C
 Dissolved Oxygen: Standard **9.0** mg/L at **19** °C Reading **9.0** mg/L at **21.4** °C
 ORP: Standard **95** mV at **20** °C Reading **81** mg/L at **21.9** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **4/27 @ 0750** **1219 Pump On**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1220	10	6.48	0.77	3.7	2.2	22.8	21	10	0.25	
1222	10	6.47	0.77	71.5	2.3	22.6	30	30	0.78	
1224	10	6.47	0.76	29.3	3.8	22.7	37	50	1.29	56.70
1226	10	6.46	0.76	8.3	3.4	22.8	43	70	1.81	DRY
1227	Well Dry									
0815	-	6.13	6.65	47.6	8.8	22.3	208	-	-	33.5
4-30-09										
Static										

NOTES:

Sampled by FMI, sample notes from FMI Logbook

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
				1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
				1 gal	1	HNO ₃	No	Radiochemistry	Paragon
				500 mL	1	None	No	Wet Chem.	ACZ-Raw
				250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
				500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
				40 mL VOA	3	HCL	No	VOC	ACZ
				250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
				250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @160, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: P2-2007-05 Screen Set: Depth to Water: 246.38 GWS QTR 2
Project Name: FMI Sierrita Well Diameter: Date Measured: 4-28-09 Page 1 of 1
Project Number: 24096838 Total Depth: Measured From: TOC
Task Code: 10015 Dedicated Pump: NO Well Volume: 1 CU = 7.12 GAL

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 21.8 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 85.3
Conductivity: Standard 0.44 S/cm at 25 °C Reading 0.45 S/cm at 21.8 °C
Dissolved Oxygen: Standard 8.53 mg/L at 22 °C Reading 8.7 mg/L at 21.8 °C
ORP: Standard 95 mV at 20 °C Reading 77 mg/L at 22.2 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 4-28-09 @ 0730 ORSA Rep'd

WELL PURGING AND STABILIZATION PARAMETERS

Table with columns: Time, Discharge Rate (GPM), pH, Spec. Cond (S/cm), Turbidity (NTU), Dissolved Oxygen (mg/L), Temp °C, Eh/ORP (mV), Gallons Purged, Casing Vol., Depth to Water. Contains multiple rows of data points.

NOTES: Sampler will not fit in 2" well / Bennett pump.

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge X Bennett Other

Table with columns: Sample ID, Date, Time, (✓) if Filled, Container Type, Number of Containers, Preservative, Filtered Yes/No, Analysis, Comments. Includes sample details for P2-2007-05 at 4-28-09 0925.

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Amargosa Intercept</u>	Screen Set:	Depth to Water:	GWS QTR <u>2</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>5-18-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From:	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 41.00 at 23.6 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 79.1

Conductivity: Standard 0.449 S/cm at 25 °C Reading 4.49 mS/cm at 23.6 °C

Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.8 mg/L at 23.6 °C

ORP: Standard 95 mV at 23 °C Reading 72 mg/L at 23.7 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-18-09 at 1012 h15

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1150</u>	<u>-</u>	<u>3.35</u>	<u>18.5</u>	<u>0.1</u>	<u>3.2</u>	<u>35.1</u>	<u>283</u>	<u>-</u>	<u>-</u>	<u>Surf</u>

NOTES: Pump 2 - Rot Pond No. 2 discharge line is 5 gal bucket

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Amargosa Intercept</u>	<u>5-18-09</u>	<u>1150</u>	<u>✓✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
<u>Amargosa Intercept</u>	<u>5-18-09</u>	<u>1155</u>	<u>✓✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
VRP SUITE									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET										
Well ID: <u>Amarigosa Pond</u>	Screen Set: <u>-</u>	Depth to Water: <u>N/A</u>	GWS QTR <u>2</u>							
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>-</u>	Date Measured: <u>5-12-09</u>	Page <u>1</u> of <u>1</u>							
Project Number: <u>24096838</u>	Total Depth: <u>-</u>	Measured From: <u>N/A</u>								
Task Code: <u>10015</u>	Dedicated Pump: <u>-</u>	Well Volume: <u>N/A</u>								
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft										
FIELD INSTRUMENT CALIBRATION										
PH:	pH: 4.00 = <u>3.99</u> at <u>22.9</u> °C		Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>80.0</u>							
Conductivity:	Standard <u>4.49</u> µS/cm at 25 °C		Reading <u>4.48</u> µS/cm at <u>22.9</u> °C							
Dissolved Oxygen:	Standard <u>8.39</u> mg/L at <u>23</u> °C		Reading <u>8.8</u> mg/L at <u>22.9</u> °C							
ORP:	Standard <u>89</u> mV at <u>25</u> °C		Reading <u>88</u> mV at <u>23</u> °C							
Date / Time of Calibration(s):	(for Horiba U22 XD sn: 8153008) <u>5-12-09 @ 0740</u>									
WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	pH	Spec. Cond µM (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0930</u>	<u>-</u>	<u>2.46</u>	<u>34.9</u>	<u>1.1</u>	<u>5.5</u>	<u>28.9</u>	<u>519</u>	<u>-</u>	<u>-</u>	<u>N/A</u>
<i>(Large handwritten 'X' and 'CAL' mark across the table)</i>										
NOTES:										
Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)				(+/- 0.3 ft.)
SAMPLE COLLECTION										
Sampling Method (✓): <input type="checkbox"/> Dedicated Pump <input type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailer <input type="checkbox"/> Low Flow/Micropurge <input type="checkbox"/> Bennett <input checked="" type="checkbox"/> Other										
Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments	
<u>Amarigosa Pond</u>	<u>5-12-09</u>	<u>09:30</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>	
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>	
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>	
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>	
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>	
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>	
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>	
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>	
"VRP SUITE"										
Samplers Signature(s): <u>[Signature]</u>										
Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha Wet Chemistry - Raw: alkalinity as CaCO ₃ , conductivity @25C, pH, and TDS (ratio-measured/calculated) Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO ₃ : Cations: calcium, magnesium, potassium, and sodium										

SAMPLING DATA SHEET

Well ID: <u>Bailey Lake</u>	Screen Set: <u>NA</u>	Depth to Water: <u>Surface</u>	GWS QTR <u>2</u> Page <u>1</u> of <u>1</u>
Project Name: FMI Sierrita	Well Diameter: <u>NA</u>	Date Measured: <u>5-5-09</u>	
Project Number: 24096636	Total Depth: <u>NA</u>	Measured From: <u>N/A</u>	
Task Code: 10015	Dedicated Pump: <u>NA</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 24.5 °C Turbidity: NTU: 0 = Reading 6 NTU: 100 = Reading 70.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.446 S/cm at 24.5 °C
 Dissolved Oxygen: Standard 8.35 mg/L at 24 °C Reading 8.4 mg/L at 24.5 °C
 ORP: Standard 89 mV/L at 25 °C Reading 93 mg/L at 24.3 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-5-09 01040

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond μ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1250</u>	<u>-</u>	<u>3.56</u>	<u>31.1</u>	<u>0.0</u>	<u>9.7</u>	<u>24.6</u>	<u>486</u>	<u>-</u>	<u>-</u>	<u>Surface</u>

NOTES: Collected in 5 gal bucket.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Bailey Lake</u>	<u>5-5-09</u>	<u>1250</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

VRP SUITE

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <i>Decant Solution</i>	Screen Set: <i>NA</i>	Depth to Water: <i>NA</i>	GWS QTR <i>2</i> Page <i>1</i> of <i>1</i>
Project Name: FMI Sierrita	Well Diameter: <i>NA</i>	Date Measured: <i>5-14-09</i>	
Project Number: 24096838	Total Depth: <i>NA</i>	Measured From: <i>NA</i>	
Task Code: 10015	Dedicated Pump: <i>NO</i>	Well Volume: <i>✓</i>	

Well Volumes: 3/8" = 0.0025 gal./ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal./ft 2" = 0.163 gal./ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = *4.0* at *23.4* °C Turbidity: NTU: 0 = Reading *2* NTU: 100 = Reading *69.0*
 Conductivity: Standard *0.449* M/S/cm at 25 °C Reading *4.49* S/cm at *23.4* °C
 Dissolved Oxygen: Standard *8.39* mg/L at *23* °C Reading *8.7* mg/L at *23.4* °C
 ORP: Standard *95* mV/L at *23* °C Reading *85* mg/L at *23.8* °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) *5/14/09 @ 0742 hrs*

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (M/S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<i>1335</i>	<i>-</i>	<i>9.58</i>	<i>2.95</i>	<i>94.0</i>	<i>0.6</i>	<i>28.0</i>	<i>-237</i>	<i>-</i>	<i>-</i>	<i>NA</i>

NOTES: *Collect sample in 5 gal bucket from discharge pipe to Pond.*

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<i>Decant Solution</i>	<i>5-14-09</i>	<i>1335</i>	<i>✓</i>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<i>✓</i>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<i>✓</i>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<i>✓</i>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<i>NA</i>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<i>NA</i>	40 mL VOA	3	HCL	No	VOC	ACZ
			<i>✓</i>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<i>✓</i>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

"VRP SUITE"

Samplers Signature(s): *[Signature]*

Radiochemistry: gross alpha/beta, radium 226, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Former B Pond</u>	Screen Set: <u>N/A</u>	Depth to Water: <u>24.55'</u>	GWS QTR <u>2</u> Page <u>1</u> of <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>Sump</u>	Date Measured: <u>5-12-09</u>	
Project Number: <u>24096838</u>	Total Depth: <u>?</u>	Measured From: <u>(Ground Level)</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>3.99</u> at <u>22.9</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>80.0</u>
Conductivity: Standard <u>4.49</u> µS/cm at 25 °C	Reading <u>4.49</u> µS/cm at <u>22.9</u> °C
Dissolved Oxygen: Standard <u>8.39</u> mg/L at <u>23</u> °C	Reading <u>8.8</u> mg/L at <u>22.9</u> °C
ORP: Standard <u>89</u> mV/L at <u>25</u> °C	Reading <u>88</u> mg/L at <u>23</u> °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1100</u>	<u>-</u>	<u>3.53</u>	<u>24.3</u>	<u>70.9</u>	<u>0.7</u>	<u>17.8</u>	<u>372</u>	<u>-</u>	<u>-</u>	<u>4.55</u>

NOTES: Collected Sample From Old concrete sump 15 gallon Bucket

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Former B Pond</u>	<u>5-12-09</u>	<u>1100</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

VRP SUITE" _____
 Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, uranium isotopes 234 235 236, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @160, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Headwall No. 1</u>	Screen Set: <u>NA</u>	Depth to Water: <u>Surface</u>	GWS QTR <u>2</u>
Project Name: FMI Sierrita	Well Diameter: <u>NA</u>	Date Measured: <u>5-5-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: 10015	Dedicated Pump: <u>NA</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 24.5 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 70.4

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.446 S/cm at 24.5 °C

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.4 mg/L at 24.5 °C

ORP: Standard 89 mV at 25 °C Reading 93 mV at 24.3 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-5-09 @ 1040

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond μ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1215</u>	<u>-</u>	<u>8.65</u>	<u>30.3</u>	<u>3.5</u>	<u>7.8</u>	<u>21.2</u>	<u>473</u>	<u>-</u>	<u>-</u>	<u>Surface</u>

NOTES: Collected in 5 gal bucket.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 1</u>	<u>5-5-09</u>	<u>1215</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

VRP SUITE

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Headwall No. 2</u>	Screen Set: <u>N/A</u>	Depth to Water: <u>N/A</u>	GWS QTR <u>2</u> Page <u>1</u> of <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>N/A</u>	Date Measured: <u>5-14-09</u>	
Project Number: <u>24096838</u>	Total Depth: <u>N/A</u>	Measured From: <u>N/A</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N/A</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 41.0 at 23.4 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 69.0
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 41.49 S/cm at 23.4 °C
 Dissolved Oxygen: Standard 8.34 mg/L at 23 °C Reading 8.7 mg/L at 23.4 °C
 ORP: Standard 95 mV at 23 °C Reading 85 mg/L at 23.8 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 8/14/09 @ 0742 hrs

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond μ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1100</u>	<u>-</u>	<u>2.78</u>	<u>30.3</u>	<u>4.4</u>	<u>10.5</u>	<u>19.1</u>	<u>380</u>	<u>-</u>	<u>-</u>	<u>Surface</u>

NOTES: 5 gallon bucket dipped from Pond.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 2</u>	<u>5-14-09</u>	<u>1100</u>	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>Headwall N/A.3</u>	Screen Set: <u>NA</u>	Depth to Water: <u>Surface</u>	GWS QTR <u>2</u>
Project Name: FMI Sierrita	Well Diameter: <u>NA</u>	Date Measured: <u>5-14-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.0</u> at <u>23.4</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>69.0</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>4.49</u> mS/cm at <u>23.4</u> °C
Dissolved Oxygen: Standard <u>8.39</u> mg/L at <u>27</u> °C	Reading <u>8.7</u> mg/L at <u>23.4</u> °C
ORP: Standard <u>95</u> mV at <u>23</u> °C	Reading <u>85</u> mg/L at <u>23.4</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>8/14/09 @ 0742 hrs</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1005</u>	<u>-</u>	<u>2.95</u>	<u>30.1</u>	<u>1.0</u>	<u>9.1</u>	<u>22.7</u>	<u>336</u>	<u>-</u>	<u>-</u>	<u>Surface</u>

NOTES: 5 gallon bucket dipped from pond.

Stabilization	(+/- 0.1)	(+/- 5%)	<input checked="" type="checkbox"/> (+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall N/A.3</u>	<u>5-14-09</u>	<u>1005</u>	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			<input type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>Headwall No. 5</u>	Screen Set: <u>N/A</u>	Depth to Water: <u>Pond</u>	GWS QTR <u>2</u>
Project Name: FMI Sierra	Well Diameter: <u>2 1/2"</u>	Date Measured: <u>5-14-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>N/A</u>	Measured From: <u>N/A</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.0</u> at <u>23.4</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>69.0</u>
Conductivity: Standard <u>4.49</u> µS/cm at 25 °C	Reading <u>4.49</u> µS/cm at <u>23.4</u> °C
Dissolved Oxygen: Standard <u>8.39</u> mg/L at <u>23</u> °C	Reading <u>8.7</u> mg/L at <u>23.4</u> °C
ORP: Standard <u>95</u> mV/L at <u>23</u> °C	Reading <u>85</u> mg/L at <u>23.8</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>8/14/09 @ 0742 hrs</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µm(S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0905</u>	<u>-</u>	<u>8.83</u>	<u>16.0</u>	<u>10.5</u>	<u>9.6</u>	<u>22.6</u>	<u>261</u>	<u>-</u>	<u>-</u>	<u>Surface</u>

NOTES: Collect sample in 5 gallon bucket from Pond.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 5</u>	<u>5-14-09</u>	<u>0905</u>	<u>✓</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<u>✓</u>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<u>✓</u>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<u>✓</u>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<u>NO</u>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<u>NO</u>	40 mL VOA	3	HCL	No	VOC	ACZ
			<u>✓</u>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<u>✓</u>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

VRP SUITE

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 236, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Intercept No 1</u>	Screen Set: <u>n/a</u>	Depth to Water: <u>~ 20'</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>Sump</u>	Date Measured: <u>5-5-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>?</u>	Measured From: <u>-</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>-</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.0 at 24.5 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 70.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.446 S/cm at 24.5 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.4 mg/L at 24.5 °C
 ORP: Standard 89 mV at 25 °C Reading 93 mg/L at 24.3 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-5-09 8 1040

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond μ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1340</u>	<u>-</u>	<u>3.40</u>	<u>24.9</u>	<u>0.0</u>	<u>4.5</u>	<u>24.5</u>	<u>341</u>	<u>-</u>	<u>-</u>	<u>~ 20'</u>

NOTES: Collected Sample in 5 Gal Bucket at Kaffinthe Pond no 2.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Intercept No 1</u>	<u>5-5-09</u>	<u>1340</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

*VRP SUITE"
 Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 236, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @160, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Intercept No.2</u>	Screen Set:	Depth to Water:	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured:	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From:	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 22.7 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 78.8
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 4.49 μ S/cm at 22.9 °C
 Dissolved Oxygen: Standard 8.37 mg/L at 23 °C Reading 8.8 mg/L at 22.9 °C
 ORP: Standard 95 mV/L at 23 °C Reading 73 mg/L at 22.7 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5/13/09 @ 0840

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond μ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1405</u>		<u>6.05</u>	<u>0.651</u>	<u>5.8</u>	<u>8.5</u>	<u>33.4</u>	<u>250</u>	-	-	

NOTES: Sample Pump Running - Collected Sample at Discharge Line - Raffinate Pond No.2

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump ___ Non-Dedicated Pump ___ Hand Bailer ___ Low Flow/Micropurge ___ Bennett ___ Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Intercept No.2</u>	<u>5-13-09</u>	<u>1405</u>	✓	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			✓	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			✓	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			✓	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>N/A</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>N/A</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			✓	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			✓	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Raffinate No 2</u>	Screen Set: <u>NA</u>	Depth to Water: <u>NA</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Siemila</u>	Well Diameter:	Date Measured: <u>5-12-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>-</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume: <u>-</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= <u>3.99</u> at <u>22.9</u> °C Conductivity: Standard <u>4.49</u> µS/cm at 25 °C Dissolved Oxygen: Standard <u>8.39</u> mg/L at <u>23</u> °C ORP: Standard <u>88</u> mV at <u>23</u> °C Date / Time of Calibration(s): <u>5/12/09 @ 07:40</u> (for Horiba U22 XD Sn: 8153008)	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>80.0</u> Reading <u>4.48</u> µS/cm at <u>22.9</u> °C Reading <u>8.8</u> mg/L at <u>22.9</u> °C Reading <u>88</u> mg/L at <u>23</u> °C
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WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EN/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>08:45</u>	<u>NA</u>	<u>2.44</u>	<u>329</u>	<u>1.4</u>	<u>3.5</u>	<u>23.4</u>	<u>42.1</u>	<u>-</u>	<u>-</u>	<u>-</u>

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Raffinate Pur No 2</u>	<u>5/12/09</u>	<u>08:45</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO3</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO3</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H2SO4 / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO3</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <i>Reclaim Pond</i>	Screen Set: <i>NA</i>	Depth to Water: <i>NA</i>	GWS QTR <i>2</i>
Project Name: FMI Sierrita	Well Diameter: <i>NA</i>	Date Measured: <i>5-14-09</i>	Page <i>1</i> of <i>1</i>
Project Number: 24096838	Total Depth: <i>NA</i>	Measured From: <i>NA</i>	
Task Code: 10015	Dedicated Pump: <i>NA</i>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = *4.0* at *23.4* °C Turbidity: NTU: 0 = Reading *0.0* NTU: 100 = Reading *69.0*
 Conductivity: Standard *0.449* S/cm at 25 °C Reading *4.49* m S/cm at *23.4* °C
 Dissolved Oxygen: Standard *8.39* mg/L at *23* °C Reading *8.7* mg/L at *23.4* °C
 ORP: Standard *95* mV at *23* °C Reading *85* mg/L at *23.8* °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) *5/14/09 @ 0742 hrs*

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond μ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<i>1430</i>	<i>-</i>	<i>8.15</i>	<i>4.55</i>	<i>103.0</i>	<i>9.7</i>	<i>25.4</i>	<i>141</i>	<i>-</i>	<i>-</i>	

NOTES: *5 gallon bucket from settling basin. Pumps ON, Flowing*

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<i>Reclaim Pond</i>	<i>5-14-09</i>	<i>1430</i>	✓	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<i>NO</i>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<i>NO</i>	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

VRP SUITE

Samplers Signature(s): *[Signatures]*

Radiochemistry: gross alpha/beta, radium 226, radium 226, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>SX Sump-1</u>	Screen Set:	Depth to Water: <u>7.8'</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierra</u>	Well Diameter:	Date Measured: <u>5-13-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 22.9 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 78.8
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 4.49 M S/cm at 22.9 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.8 mg/L at 22.9 °C
 ORP: Standard 95 mV at 23 °C Reading 73 mg/L at 22.7 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5/13/09 @ 0840 1302 Pump On

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond M(S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1255</u>	-	-	-	-	-	-	-	-	-	<u>7.8</u>
<u>1310</u>	<u>6</u>	<u>3.23</u>	<u>18.6</u>	<u>708.0</u>	<u>0.8</u>	<u>24.2</u>	<u>384</u>	<u>48</u>	-	<u>7.85</u>
<u>1315</u>	<u>6</u>	<u>3.23</u>	<u>18.1</u>	<u>477.0</u>	<u>0.2</u>	<u>24.2</u>	<u>377</u>	<u>78</u>	-	<u>7.90</u>
<u>1320</u>	<u>6</u>	<u>3.24</u>	<u>18.1</u>	<u>360.0</u>	<u>0.3</u>	<u>24.3</u>	<u>367</u>	<u>108</u>	-	<u>8.05</u>
<u>1325</u>	<u>6</u>	<u>3.24</u>	<u>18.2</u>	<u>303.0</u>	<u>0.4</u>	<u>24.3</u>	<u>362</u>	<u>138</u>	-	<u>8.05</u>

NOTES: Water is cloudy - light green. Stabilization not required.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX Sump-1</u>	<u>5-13-09</u>	<u>1325</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>SX-Samp 2</u>	Screen Set: <u>NA</u>	Depth to Water: <u>8.30</u>	GWS QTR <u>2</u> Page <u>1</u> of <u>1</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>?</u>	Date Measured: <u>5-13-09</u>	
Project Number: <u>24096636</u>	Total Depth: <u>?</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 22.9 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 78.8
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 4.49 m S/cm at 22.9 °C
 Dissolved Oxygen: Standard 8.8 mg/L at 22.9 °C Reading 8.8 mg/L at 22.9 °C
 ORP: Standard 95 mV at 23 °C Reading 73 mg/L at 22.7 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-13-09 0840 0940 Pump on

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate (GPM)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0915	-	-	-	-	-	-	-	-	-	8.30
0942	2	2.84	21.4	976.0	1.9	21.9	425	24.0	-	-
0952	2	2.79	21.4	81.9	1.4	22.0	489	24	-	-
0955	2	2.77	21.2	47.8	1.5	22.1	487	30	-	8.85
0959 1000	2	2.76	21.0	27.4	1.4	22.1	480	40	-	9.02
1005	2	2.76	20.9	19.9	0.6	22.2	475	50	-	9.08

NOTES: Murky Green Water. Stabilization not Required.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX-Samp 2</u>	<u>5-13-09</u>	<u>1005</u>	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>SX Samp-3</u>	Screen Set: <u>NA</u>	Depth to Water: <u>10.3'</u>	GWS QTR <u>2</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>?</u>	Date Measured: <u>5-13-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>?</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft. 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

pH: 4.00 = 4.0 at 22.9 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 78.8
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 4.49 mS/cm at 22.9 °C
 Dissolved Oxygen: Standard 8.37 mg/L at 22.9 °C Reading 8.8 mg/L at 22.9 °C
 ORP: Standard 95 mV at 23 °C Reading 73 mg/L at 22.7 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 5-13-09 0840 1102 Pump ON

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µ (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EM/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1056</u>	<u>3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>10.30</u>
<u>1110</u>	<u>3</u>	<u>3.24</u>	<u>23.9</u>	<u>61000</u>	<u>4.8</u>	<u>22.8</u>	<u>460</u>	<u>21</u>	<u>-</u>	<u>10.65</u>
<u>1115</u>	<u>3</u>	<u>3.20</u>	<u>21.9</u>	<u>51000</u>	<u>3.0</u>	<u>22.9</u>	<u>390</u>	<u>36</u>	<u>-</u>	<u>10.70</u>
<u>1120</u>	<u>3</u>	<u>3.20</u>	<u>21.1</u>	<u>982.0</u>	<u>2.3</u>	<u>22.9</u>	<u>375</u>	<u>51</u>	<u>-</u>	<u>10.85</u>
<u>1125</u>	<u>3</u>	<u>3.19</u>	<u>20.2</u>	<u>752.0</u>	<u>1.8</u>	<u>23.0</u>	<u>379</u>	<u>66</u>	<u>-</u>	<u>11.02</u>

NOTES: Water murky BROWN at start. And at end. Stabilization not required

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX Samp-3</u>	<u>5-13-09</u>	<u>1125</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Radiochemistry</u>	<u>Paragon</u>
<u>SX Samp-3</u>			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

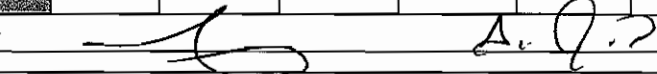
Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

Purged Dry
7-1-09
64.11'

SAMPLING DATA SHEET										
Well ID: MW-2008-01	Screen Set: <input checked="" type="checkbox"/>	Depth to Water: 64.21					GWS QTR: 3			
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 7-2-09					Page 1 of 1			
Project Number: 24096838	Total Depth: <input checked="" type="checkbox"/>	Measured From: TOC								
Task Code: 10015	Dedicated Pump: NO	Well Volume: NA								
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft										
FIELD INSTRUMENT CALIBRATION										
Ph:	pH: 4.00= 4.0 at 28.16 °C	Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 74.6								
Conductivity:	Standard 0.449 S/cm at 25 °C	Reading 0.449 S/cm at 28.16 °C								
Dissolved Oxygen:	Standard 7.75 mg/L at 28 °C	Reading 8.0 mg/L at 28.16 °C								
ORP:	Standard 300 mV at 28 °C	Reading 92 mg/L at 28.06 °C								
Date / Time of Calibration(s):	30 (for Horiba U22 XD sn: 8153008) 7-2-09 # 0635									
WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0745	80 mL/min	5.94	2.79	0.0	5.8	24.61	188	-	-	64.29
0750	"	5.91	2.81	0.0	3.2	24.50	181	-	-	64.31
0755	"	5.93	2.81	0.0	2.6	24.52	176	-	-	64.32
0800	"	5.93	2.81	0.0	2.5	24.59	173	-	-	64.33
0805	"	5.92	2.81	0.0	2.6	24.60	173	-	-	64.34
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.3;"> </div>										
NOTES: Purged well dry 7-1-09. DTW = 64.11										
Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)										
SAMPLE COLLECTION										
Sampling Method (✓): <input type="checkbox"/> Dedicated Pump <input type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailer <input checked="" type="checkbox"/> Low Flow/Micropurge <input type="checkbox"/> Bennett <input type="checkbox"/> Other										
Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments	
MW-2008-01	7-2-09	0805								
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon	
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw	
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot	
			NA	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot	
			NA	40 mL VOA	3	HCL	No	VOC	ACZ	
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot	
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot	
"VRP SUITE"										
Samplers Signature(s):										
Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha										
Wet Chemistry - Raw: alkalinity as CaCO ₃ , conductivity @25C, pH, and TDS (ratio-measured/calculated)										
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate										
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO ₃ : Cations: calcium, magnesium, potassium, and sodium										

Purged Dry
7-1-09
33.17'

SAMPLING DATA SHEET										
Well ID: MW-2008-02	Screen Set: <input checked="" type="checkbox"/>	Depth to Water: 33.83		GWS QTR 3						
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 7-2-09		Page 1 of 1						
Project Number: 24096838	Total Depth: <input checked="" type="checkbox"/>	Measured From: TOC								
Task Code: 10015	Dedicated Pump: NO	Well Volume: N/A								
Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft										
FIELD INSTRUMENT CALIBRATION										
Ph:	pH: 4.00-4.0	at 28.16 °C		Turbidity: NTU: 0 = Reading 0.0		NTU: 100 = Reading 74.6				
Conductivity:	Standard 0.449	S/cm at 25 °C		Reading 0.449		S/cm at 28.16 °C				
Dissolved Oxygen:	Standard 7.75	mg/L at 28 °C		Reading 8.0		mg/L at 28.16 °C				
ORP:	Standard 82.7	mV at 30 °C		Reading 92		mg/L at 28.86 °C				
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-2-09 @ 0635										
WELL PURGING AND STABILIZATION PARAMETERS										
Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0905	90 mL/min	6.22	7.47	1.4	4.7	24.88	110	-	-	33.83
0910	" "	6.26	7.62	1.1	3.6	24.69	91	-	-	33.89
0915	" "	6.27	7.64	1.1	3.6	24.72	86	-	-	33.85
0920	" "	6.28	7.64	1.3	3.5	24.61	83	-	-	34.01
0925	" "	6.29	7.64	1.0	3.4	24.63	83	-	-	34.03
NOTES: Purged well dry on 7-1-09. dtw = 33.17'										
Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)				
SAMPLE COLLECTION										
Sampling Method (✓): <input type="checkbox"/> Dedicated Pump <input type="checkbox"/> Non-Dedicated Pump <input type="checkbox"/> Hand Bailor <input checked="" type="checkbox"/> Low Flow/Micropurge <input type="checkbox"/> Bennett <input type="checkbox"/> Other										
Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments	
MW-2008-02	7-2-09	0925	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon	
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw	
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot	
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot	
			NO	40 mL VOA	3	HCL	No	VOC	ACZ	
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot	
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot	
"VRP SUITE"										
Samplers Signature(s): 										
Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha										
Wet Chemistry - Raw: alkalinity as CaCO ₃ , conductivity @25C, pH, and TDS (ratio-measured/calculated)										
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate										
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO ₃ : Cations: calcium, magnesium, potassium, and sodium										

W05 36 02' ON 7-1-09
 Paged Dry

SAMPLING DATA SHEET

Well ID: MW-2008-03	Screen Set:	Depth to Water: 36.10	GWS QTR 3
Project Name: FMI Sierita	Well Diameter: 4"	Date Measured: 7-22-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: 70C	
Task Code: 10015	Dedicated Pump: NO	Well Volume: N/A	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 24.09 °C Turbidity: NTU: 0 = Reading 0.2 NTU: 100 = Reading 85.4

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.09 °C Begin Pumping @ 0850

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 24.09 °C

ORP: Standard 89 mV at 25 °C Reading 70 mg/L at 24.24 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
859	120 ml/min	6.08	7.78	0	7.9	26.24	112	-	-	36.18
903	100 ml/min	6.14	7.73	0	7.6	26.13	121	-	-	36.21
907	100 ml/min	6.17	7.65	0	7.5	26.12	130	-	-	36.29
911	95	6.18	7.64	0	7.4	26.40	136	-	-	36.33
915	95	6.19	7.62	0	7.3	26.38	138	-	-	36.36

NOTES: Duplicate collected - MW-2008-03D

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-03	7-22-09	0915	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dsvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dsvd.	ACZ-Green Dot

VRP SUITE
 Samplers Signature(s): *A. J. [Signature]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

Purged by 7-1-09 35.26

SAMPLING DATA SHEET

Well ID: mw-2008-04	Screen Set: <input checked="" type="checkbox"/>	Depth to Water: 35.36	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-2-09	Page 1 of 1
Project Number: 24096838	Total Depth: <input checked="" type="checkbox"/>	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume: NA	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **28.16** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **74.6**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **28.16** °C

Dissolved Oxygen: Standard **7.75** mg/L at **28** °C Reading **8.0** mg/L at **28.16** °C

ORP: Standard **82.7** mV at **30** °C Reading **92** mg/L at **28.86** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-2-09 @ 0635**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1025	70 ml/min	6.35	6.31	3.7	4.6	26.04	35	-	-	35.39
1030	" "	6.35	7.03	3.2	2.4	25.93	22	-	-	35.44
1035	" "	6.33	7.05	3.3	1.4	26.11	15	-	-	35.45
1040	" "	6.32	7.06	3.8	1.2	26.38	10	-	-	35.48
1045	" "	6.32	7.09	3.6	1.1	26.47	9	-	-	35.50
1050	" "	6.32	7.07	3.7	1.1	26.55	9	-	-	35.51

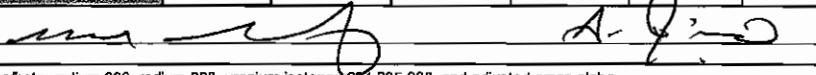
NOTES: **Purged well diy 7-1-09 DTW = 35.26'**

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
mw-2008-04	7-2-09	1050							
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<input type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-05</u>	Screen Set:	Depth to Water: <u>33.60</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>4"</u>	Date Measured: <u>7-22-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>N/A</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 24.09 °C Turbidity: NTU: 0 = Reading 0.2 NTU: 100 = Reading 85.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.09 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 24.09 °C
 ORP: Standard 89 mV at 25 °C Reading 70 mg/L at 24.24 °C

Begin 10:20

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1025	100 mL/min	6.37	3.72	8.2	2.6	26.08	158	-	-	33.69
1029	100	6.11	3.68	0.0	1.6	26.17	166	-	-	33.71
1033	100	6.09	3.70	0.0	1.4	26.28	170	-	-	33.77
1037	100	6.07	3.75	0.0	1.3	26.10	171	-	-	33.81
1041	100	6.06	3.74	0.0	1.3	26.10	172	-	-	33.83

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-05</u>	<u>7-22-09</u>	<u>1041</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dsld	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dsld.	ACZ-Green Dot

VRP SUITE

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MW-2008-06 Screen Set: Depth to Water: 21.69 GWS QTR _____
 Project Name: FMI Sierrita Well Diameter: 4" Date Measured: 7-22-09 Page ____ of ____
 Project Number: 24096838 Total Depth: Measured From: 70C
 Task Code: 10015 Dedicated Pump: NO Well Volume: NA

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 24.09 °C Turbidity: NTU: 0 = Reading 0.2 NTU: 100 = Reading 85.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.09 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 24.07 °C *Begin pump @ 1120*
 ORP: Standard 89 mV at 25 °C Reading 70 mg/L at 24.24 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1126	120 ~ 2"	6.50	6.61	10.3	4.6	25.90	166	-	-	21.80
1130	120	6.27	6.53	0.0	4.1	25.64	164	-	-	21.88
1134	120	6.26	6.51	0.0	3.9	26.08	163	-	-	21.94
1138	120	6.27	6.52	0.0	4.0	25.55	163	-	-	22.00

NOTES: _____
 Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-06	7-22-09	1138	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-07</u>	Screen Set:	Depth to Water: <u>26.49</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4</u>	Date Measured: <u>7-23-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOL</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.94°C Turbidity: NTU: 0 = Reading 0.1 NTU: 100 = Reading 84

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 23.94°C

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 23.94°C

ORP: Standard 89 mV at 25 °C Reading 66 mg/L at 23.94 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

Pump on
e1108

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1112</u>	<u>100mL</u>	<u>5.65</u>	<u>5.37</u>	<u>0.0</u>	<u>5.2</u>	<u>25.62</u>	<u>140</u>	<u>-</u>	<u>-</u>	<u>26.50</u>
<u>1116</u>	<u>100mL</u>	<u>5.64</u>	<u>5.37</u>	<u>0.0</u>	<u>5.3</u>	<u>25.60</u>	<u>139</u>	<u>-</u>	<u>-</u>	<u>26.52</u>
<u>1120</u>	<u>100mL</u>	<u>5.62</u>	<u>5.36</u>	<u>0.0</u>	<u>5.1</u>	<u>25.60</u>	<u>137</u>	<u>-</u>	<u>-</u>	<u>26.57</u>
<u>1124</u>	<u>100mL</u>	<u>5.65</u>	<u>5.39</u>	<u>0.0</u>	<u>5.3</u>	<u>25.32</u>	<u>143</u>	<u>-</u>	<u>-</u>	<u>26.62</u>

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-07</u>	<u>7-23-09</u>	<u>1124</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

"VRP SUITE"

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

Purged Dry 7-14-09
DTW = 11.91

SAMPLING DATA SHEET			
Well ID: <u>MU-2008-08</u>	Screen Set:	Depth to Water: <u>16.03' AFA 72hrs</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4</u>	Date Measured: <u>7-17-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
Ph: pH: 4.00 = <u>4.0</u> at <u>23.91</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u>	NTU: 100 = Reading <u>76.3</u>	
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>23.91</u> °C		
Dissolved Oxygen: Standard <u>8.25</u> mg/L at <u>24</u> °C	Reading <u>8.50</u> mg/L at <u>23.91</u> °C		
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>77</u> mg/L at <u>24.22</u> °C		
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)	<u>7-17 @ 0735</u>		<u>1553</u> <u>Basin Pumping</u>

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate ml/min	pH	Spec. Cond mS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1600	100	6.49	9.0	17.4	7.1	27.47	150	-	-	16.15
1604	100	6.45	9.0	4.0	6.5	27.03	155	-	-	16.35
1608	90	6.42	9.0	6.2	6.1	27.72	161	-	-	16.64
1612	90	6.40	9.0	17.3	6.0	28.15	167	-	-	16.80
1618	85	6.35	9.0	17.5	5.9	28.16	169	-	-	16.99
1622	85	6.33	9.0	15.8	5.9	28.19	172	-	-	17.15

NOTES: Water level not stable.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MU-2008-08</u>	<u>7-17-09</u>	<u>1622</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

Purged Dry 7-14-09

OTW = 34.76

SAMPLING DATA SHEET			
Well ID: MW-2008-09	Screen Set:	Depth to Water: 37.41 at 72 hrs	GWS QTR 3
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 7-17-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
pH: pH: 4.00 = 4.0 at 23.91 °C	Turbidity: NTU: 0 = Reading 0.2	NTU: 100 = Reading 76.3	
Conductivity: Standard 2549 S/cm at 25 °C	Reading 0.449 S/cm at 23.91 °C		
Dissolved Oxygen: Standard 9.25 mg/L at 24 °C	Reading 8.60 mg/L at 23.91 °C		1705
ORP: Standard 89 mV at 25 °C	Reading 77 mg/L at 24.22 °C		Begin Pumping
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-17 @ 0735			

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge (mg/min)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EW/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1712	100	4.14	9.0	42.5	5.6	25.07	312	-	-	37.52
1716	100	3.90	5.63	23.0	4.0	24.73	340	-	-	37.58
1720	100	3.81	5.58	12.3	3.4	24.56	344	-	-	37.68
1724	100	3.95	5.58	9.6	3.3	24.54	334	-	-	37.78
1728	100	3.98	5.58	9.4	3.3	24.48	333	-	-	37.84
1732	100	3.94	5.59	9.0	3.3	24.26	339	-	-	37.93

NOTES: Water level not stable.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-09	7-17-09	1732							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

VRP SUITE

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-2008-10</u>	Screen Set: <u>-</u>	Depth to Water: <u>33.89</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4</u>	Date Measured: <u>7-23-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>-</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.0</u> at <u>23.94</u> °C	Turbidity: NTU: 0 = Reading <u>0.1</u> NTU: 100 = Reading <u>84</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>23.94</u> °C
Dissolved Oxygen: Standard <u>8.25</u> mg/L at <u>24</u> °C	Reading <u>8.6</u> mg/L at <u>23.94</u> °C
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>66</u> mg/L at <u>23.94</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)	

Pump on @ 2:15

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1121	100 %	4.83	6.41	0.0	4.6	27.10	236	-	-	33.92
1125	100	4.79	5.78	0.0	4.2	27.03	240	-	-	34.01
1129	100	4.78	6.33	0.0	4.0	27.04	243	-	-	34.03

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-10	7-23-09	1129	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

"VRP SUITE"

Samplers Signature(s): A-JL

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfata
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW 2008-11</u>	Screen Set: <u>-</u>	Depth to Water: <u>17.58</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>4</u>	Date Measured: <u>7-23-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>-</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 23.94 °C Turbidity: NTU: 0 = Reading 0.1 NTU: 100 = Reading 84
 Conductivity: Standard 0.499 S/cm at 25 °C Reading 0.499 S/cm at 23.94 °C Pump 20 @ 1316
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 23.94 °C
 ORP: Standard 89 mV at 25 °C Reading 66 mg/L at 23.94 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1322	100%	4.98	2.80	3.6	7.3	27.95	260	-	-	17.71
1326	100	4.88	2.79	0.0	6.8	27.48	265	-	-	17.74
1330	100	4.81	2.80	0.0	6.9	27.80	269	-	-	17.81

NOTES: _____

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-11	7-23-09	1330	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
VRP SUITE									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

Purged Day 7-14-09

DTW = 76.94

SAMPLING DATA SHEET			
Well ID: <u>MW-2008-12</u>	Screen Set:	Depth to Water: <u>129.62 After ~72h15</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4</u>	Date Measured: 7-17-09 <u>7-17-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
Ph:	pH: 4.00 = <u>4.0</u> at <u>23.91</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>76.3</u>	
Conductivity:	Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>23.91</u> °C	
Dissolved Oxygen:	Standard <u>8.25</u> mg/L at <u>24</u> °C	Reading <u>8.60</u> mg/L at <u>23.91</u> °C	<u>0920 Begin</u>
ORP:	Standard <u>89</u> mV at <u>25</u> °C	Reading <u>77</u> mg/L at <u>24.22</u> °C	<u>Purge</u>
Date / Time of Calibration(s):	(for Horiba U22 XD sn: 8153008) <u>7-17 @ 0735</u>		

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond mS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1012	90	6.41	2.55	5.7	8.9	27.45	110	-	-	129.65
1016	90	6.48	2.60	0.0	5.4	26.33	113	-	-	129.70
1020	90	6.52	2.79	0.6	3.5	25.95	115	-	-	129.79
1024	90	6.54	2.87	0.0	3.2	26.08	116	-	-	129.83
1029	90	6.54	2.88	0.0	3.0	26.08	117	-	-	129.89
1033	90	6.52	2.79	0.0	2.9	26.28	118	-	-	129.94

NOTES: Static DTW = 79.64' on 7/14/09. Water level not stable. Low Yield.

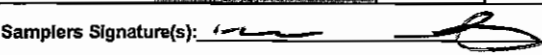
Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MW-2008-12</u> 1029-15	<u>7-17-09</u>	<u>1034</u>	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

DUP- Sample

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfata
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

6/29/09 = 59.72

Well ID: MW-200B-13	Screen Set: -	Depth to Water: 60.15	GWS QTR: 3
Project Name: FMI Sierrita	Well Diameter: 4"	Date Measured: 7-23-09	Page 1 of 1
Project Number: 24096838	Total Depth: -	Measured From: 100	
Task Code: 10015	Dedicated Pump: NO	Well Volume: N/A	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0044 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.00 at 23.94 °C Turbidity: NTU: 0 = Reading 0.1 NTU: 100 = Reading 84

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 23.94 °C Pump 0.8

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 23.94 °C 1520

ORP: Standard 89 mV at 25 °C Reading 66 mg/L at 23.94 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µs/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1525	100-400	6.16	9.99	12.2	4.9	28.09	199	-	-	60.20
1529	100	6.10	4.27	0	4.0	27.11	193	-	-	60.23
1534	100	6.11	3.99	0	4.0	27.19	198	-	-	60.26
1538	100	6.11	3.93	0	3.9	27.12	191	-	-	60.28

✓ In Database

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLING METHOD

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-200B-13	7-23-09	1538	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

VRP SUITE

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

Paged 017 7-14-09

DTW = 53.25

SAMPLING DATA SHEET			
Well ID: MW-2008-15	Screen Set:	Depth to Water: 86-15' AAPI 2 hrs	GWS QTR: 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-17-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION			
Ph: pH: 4.00 = 4.0 at 23.91 °C	Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 76.3		
Conductivity: Standard 0.449 S/cm at 25 °C	Reading 0.449 S/cm at 23.91 °C	1405 Begin	
Dissolved Oxygen: Standard 8.25 mg/L at 24 °C	Reading 8.60 mg/L at 23.91 °C	Purge	
ORP: Standard 89 mV at 25 °C	Reading 77 mg/L at 24.22 °C		
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)	7-17 @ 0735		

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate (mL/min)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1418	100	6.88	1.42	2.9	4.5	28.07	135	-	-	86.30
1422	100	6.82	1.66	5.3	3.7	29.04	137	-	-	86.32
1426	100	6.84	1.69	0.0	3.5	28.73	136	-	-	86.35
1430	100	6.84	1.59	0.0	3.5	28.43	136	-	-	86.41
1434	100	6.82	1.56	0.0	3.5	28.72	137	-	-	86.46

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-2008-15	7-17	1434							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: TW-2008-10	Screen Set:	Depth to Water: 8.5'	GWS QTR 3
Project Name: FMI Sierra	Well Diameter: 1"	Date Measured: 7-15-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume: NO	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 7.0 at 24.14 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 79.4
Conductivity: Standard 0449 S/cm at 25 °C Reading 0.449 S/cm at 24.14 °C
Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 24.14 °C
ORP: Standard 89 mV at 25 °C Reading 75 mg/L at 24.01 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-15-09 @ 0908

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond <i>µs/cm</i>	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EVORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0835	-	3.53	25.0	304.0	7.6	30.34	170	-	-	8.5

NOTES:

Ponistatic Pump

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
TW-2008-10	7-15-09	0835							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234, 235, 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (lab-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>TW-2008-11</u>	Screen Set:	Depth to Water: <u>10.10'</u>	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter: <u>1"</u>	Date Measured: <u>7-15-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096638	Total Depth:	Measured From: <u>TC</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.10</u> at <u>24.14</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>79.4</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>24.14</u> °C
Dissolved Oxygen: Standard <u>8.25</u> mg/L at <u>24</u> °C	Reading <u>8.6</u> mg/L at <u>24.14</u> °C
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>75</u> mg/L at <u>24.01</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>7-15-09 @ 0808</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond MS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1035</u>	<u>-</u>	<u>3.40</u>	<u>15.5</u>	<u>90.1</u>	<u>8.7</u>	<u>27.55</u>	<u>255</u>	<u>-</u>	<u>-</u>	<u>10.10</u>

NOTES: Peristaltic Pump.

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>TW-2008-11</u>	<u>7-15-09</u>	<u>1035</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
<u>"VRP SUITE"</u>									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: TW-2008-13	Screen Set:	Depth to Water: 12.07'	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 7-15-09	Page 1 of 1
Project Number: 24096838	Total Depth:	Measured From: TOC	
Task Code: 10015	Dedicated Pump:	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph:	pH: 4.00 = 4.0 at 24.14 °C	Turbidity:	NTU: 0 = Reading 0.0 NTU: 100 = Reading 79.4
Conductivity:	Standard 0.44 S/cm at 25 °C	Reading:	0.449 S/cm at 24.14 °C
Dissolved Oxygen:	Standard 8.25 mg/L at 24 °C	Reading:	8.6 mg/L at 24.14 °C
ORP:	Standard 89 mV at 25 °C	Reading:	75 mg/L at 24.01 °C
Date / Time of Calibration(s):	(for Horiba U22 XD sn: 8153008) 7-15-09 8:0808		

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1135	-	6.32	4.44	108.0	9.4	26.22	31	-	-	12.07

NOTES: Poristatic Pump

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)			(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
TW-2008-13	7/15/09	1135	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			N/O	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residuo filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: BW-2	Screen Set:	Depth to Water: 16.12	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-10-09	Page 1 of 1
Project Number: 24096838	Total Depth: 95	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **23.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **75.1**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.448** S/cm at **23.8** °C

Dissolved Oxygen: Standard **9.25** mg/L at **24** °C Reading **8.6** mg/L at **23.8** °C

ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **23.53** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-10-09 @ 0512** **1022 Pump On**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1023	9	6.24	9.51	710.0	1.5	23.71	-98	9	-	-
1025	9	6.48	9.25	327.0	0.8	23.49	-147	27	-	-
1030	9	6.54	9.15	303.0	0.5	23.51	-186	72	-	-
1035	9	6.47	9.13	923.0	0.4	23.51	-151	117	-	-
1040	Well DRY	-	-	-	-	-	-	-	-	-
0945	9	6.07	9.04	384.0	1.3	23.90	47	-	-	-

7-13-09

NOTES: **Water reddish-brown (rust)**

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
BW-2	7-13-09	0945	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): *[Signatures]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: BW-3	Screen Set:	Depth to Water: 26.90	GWS QTR 3
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 7-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 93	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.01** at **25.24** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **71.1**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **25.04** °C
 Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.5** mg/L at **25.04** °C
 ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **24.72** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-7-09 @ 0510**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0817	9	6.29	4.59	28.0	2.2	23.31	-46	9	-	-
0819	9	6.57	4.59	0.6	2.7	23.88	-76	27	-	-
0820	9	6.67	4.57	0.4	3.4	24.25	-86	36	-	-
0822	9	6.69	4.57	0.0	3.7	24.51	-89	54	-	-
0824	9	6.81	4.43	19.1	1.4	22.65	-150	72	-	-
0826	9	6.83	4.44	23.8	3.6	22.84	-130	90	-	-
0827	W-LL	DRY	-	-	-	-	-	-	-	-
0855	-	6.68	4.77	23.6	11.4	23.78	-115	-	-	26.05

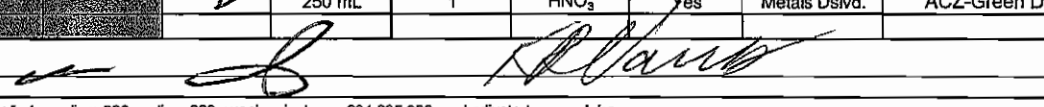
NOTES:

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
BW-3	7-9-09	0855	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>BW-4</u>	Screen Set:	Depth to Water: <u>16.02'</u>	GWS QTR: <u>3</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>7-21-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>20</u>	Measured From: <u>TOC</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.50°C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 86.0
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 23.50 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.7 mg/L at 23.50 °C
 ORP: Standard 89 mV at 25 °C Reading 70 mg/L at 23.35 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0820</u>	<u>NA</u>	<u>5.60</u>	<u>9.0</u>	<u>22.4</u>	<u>6.4</u>	<u>24.13</u>	<u>146</u>	-	-	<u>16.02</u>

NOTES: Bailer

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>BW-4</u>	<u>7/21</u>	<u>0820</u>		1 gal	1	HNO ₃	No	Radiochemistry	Paragon
				500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
				500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
				40 mL VOA	3	HCL	No	VOC	ACZ
				250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
				250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-14</u>	Screen Set:	Depth to Water: <u>424.80</u>	GWS QTR: <u>3</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>6</u>	Date Measured: <u>7-21-09</u>	
Project Number: <u>24096838</u>	Total Depth: <u>522</u>	Measured From: <u>S.T.</u>	Page <u>1</u> of <u>1</u>
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>1CV=142.84 3CV=428.64</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.5 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 86.0
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 23.50 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.7 mg/L at 23.50 °C
 ORP: Standard 89 mV at 25 °C Reading 70 mg/L at 23.35 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7/21/09 @ 0715

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1310</u>	<u>15</u>	<u>6.52</u>	<u>3.19</u>	<u>20.0</u>	<u>2.6</u>	<u>26.97</u>	<u>-83</u>	<u>45</u>	<u>0.31</u>	<u>-</u>
<u>1320</u>	<u>15</u>	<u>6.32</u>	<u>3.29</u>	<u>8.0</u>	<u>4.1</u>	<u>29.09</u>	<u>99</u>	<u>195</u>	<u>1.37</u>	<u>426.0</u>
<u>1330</u>	<u>15</u>	<u>6.33</u>	<u>3.33</u>	<u>31.0</u>	<u>3.9</u>	<u>29.40</u>	<u>110</u>	<u>345</u>	<u>2.42</u>	<u>426.08</u>
<u>1340</u>	<u>15</u>	<u>6.35</u>	<u>3.39</u>	<u>31.4</u>	<u>3.7</u>	<u>29.13</u>	<u>114</u>	<u>495</u>	<u>3.48</u>	<u>426.08</u>

NOTES:


Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-14</u>	<u>7-21</u>	<u>1340</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dsld.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dsld.</u>	<u>ACZ-Green Dot</u>

VRP SUITE

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MW-15W</u>	Screen Set:	Depth to Water: <u>393.01</u> ✓	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>7-28-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From:	
Task Code: <u>10015</u>	Dedicated Pump:	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.45 at 25 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 101
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.446 S/cm at 25 °C DWP @
 Dissolved Oxygen: Standard 8.11 mg/L at 25 °C Reading 8.5 mg/L at 25 °C 706
 ORP: Standard 89 mV/L at _____ °C Reading 81 mg/L at 25.07 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
07:08	20 gpm	6.62	3.42	9743.7	0.7	23.64	-114	40		
0712	20	6.44	3.45	59.1	0.7	23.91	-85	120		402.6
0715	20	6.37	3.48	250	1.1	23.92	-55	180		
0718	20	6.37	3.50	417	2.4	23.57	-47	240		352.1
0721	20	6.38	3.54	388.0	2.9	23.46	-37	300		402.41
0724	20	6.38	3.58	238.0	3.3	23.57	-22	360		402.27
0727	20	6.38	3.57	181.0	3.9	23.45	-27	420		402.36
0730	20	6.39	3.58	140.0	2.9	23.41	-27	480		402.34

NOTES: 3 casing = 321.62, 1 casing 107.21

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MW-15W	7-28-09	730							
				1 gal	1	HNO ₃	No	Radiochemistry	Paragon
				500 mL	1	None	No	Wet Chem.	ACZ-Raw
				250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
				500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
				40 mL VOA	3	HCL	No	VOC	ACZ
				250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
				250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): Koruky - FMZ

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-16W, Screen Set, Depth to Water: 359.31, GWS QTR 3, Project Name: FMI Sierrita, Well Diameter, Date Measured: 7-28-09, Project Number: 24096838, Total Depth, Measured From, Page 1 of 1, Task Code: 10015, Dedicated Pump, Well Volume

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 3.95 at ... °C, Turbidity: NTU: 0 = Reading 0, NTU: 100 = Reading 101, Conductivity: Standard 0.449 S/cm at 25 °C, Reading 0.446 S/cm at 25 °C, Dissolved Oxygen: Standard 8.11 mg/L at ... °C, Reading 8.5 mg/L at 25 °C, ORP: Standard 89 mV at ... °C, Reading 81 mg/L at 25.07 °C

pump on 805

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Table with columns: Time, Discharge Rate, pH, Spec. Cond, Turbidity (NTU), Dissolved Oxygen (mg/L), Temp °C, Eh/ORP (mV), Gallons Purged, Casing Vol., Depth to Water. Includes handwritten data for times 808, 811, 814, 817, 820, 823.

Handwritten signature and date 7-28-09

NOTES: 3 casing volume = 399.61, 1 casing volume = 133.2

Stabilization table with tolerance ranges: (+/- 0.1), (+/- 5%), (+/- 10%), (+/- 10%), (+/- 1), (+/- 10), (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Table with columns: Sample ID, Date, Time, Container Type, Number of Containers, Preservative, Filtered Yes/No, Analysis, Comments. Includes data for MH-16W on 7-28-09 at 823.

Samplers Signature(s): FMI-Ko.k7

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha. Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated). Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate. Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-17</u>	Screen Set: <u>140-190</u>	Depth to Water: <u>54.60</u>	GWS QTR: <u>3</u>
Project Name: <u>FMI Sierna</u>	Well Diameter: <u>4</u>	Date Measured: <u>7-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>108</u>	Measured From: <u>S.T.</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>106 ± 3 CV</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.01</u> at <u>25.04</u> °C	Turbidity: NTU: 0 = Reading <u>0</u> NTU: 100 = Reading <u>71.7</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>25.04</u> °C
Dissolved Oxygen: Standard <u>8.25</u> mg/L at <u>24</u> °C	Reading <u>8.5</u> mg/L at <u>25.04</u> °C
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>80</u> mg/L at <u>24.72</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>7-7-09 @ 0510</u>	<u>Pump on 1046</u>

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µmS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1047	8	6.52	1.79	5.9	2.0	23.28	123	8	-	-
1050	8	6.27	1.77	0.0	1.2	22.67	116	8	-	-
1053	8	6.26	1.69	0.0	0.9	22.72	112	56	-	-
1056	8	6.26	1.69	1.2	1.0	22.83	105	80	-	-
1057	WELL DRY									
1245	-	6.47	1.93	22.4	11.8	24.48	156	-	-	58.20

7-8-09

NOTES:

Stabilization	(+/- 0.1) %	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-17</u>	<u>7-8-09</u>	<u>1245</u>							
<u>24096838A</u>	<u>08A</u>	<u>1046</u>	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dstvd	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dstvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-18</u>	Screen Set:	Depth to Water: <u>61.0'</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter:	Date Measured: <u>7-13-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth:	Measured From: <u>S.T.</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>180</u>	Well Volume: <u>1CV = 77.7</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph:	pH: 4.00 = <u>4.01</u> at <u>24.14</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>78.6</u>
Conductivity:	Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>24.14</u> °C
Dissolved Oxygen:	Standard <u>8.25</u> mg/L at <u>24</u> °C	Reading <u>8.5</u> mg/L at <u>24.14</u> °C
ORP:	Standard <u>89</u> mV at <u>25</u> °C	Reading <u>75</u> mV at <u>23.77</u> °C
Date / Time of Calibration(s):	(for Horiba U22 XD sn: 8153008) <u>7-13-09 @ 0515</u>	<u>0703 Pump on</u>

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge	pH	Spec. Cond	Turbidity	Dissolved Oxygen	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0705</u>	<u>10.0</u>	<u>6.46</u>	<u>1.34</u>	<u>0.0</u>	<u>9.3</u>	<u>23.08</u>	<u>74</u>	<u>20</u>		
<u>0713</u>	<u>10.0</u>	<u>6.41</u>	<u>1.32</u>	<u>0.0</u>	<u>9.2</u>	<u>23.22</u>	<u>77</u>	<u>100</u>		
<u>0721</u>	<u>10.0</u>	<u>6.39</u>	<u>1.31</u>	<u>0.0</u>	<u>9.2</u>	<u>23.40</u>	<u>85</u>	<u>180</u>		
<u>0727</u>	<u>10.0</u>	<u>6.34</u>	<u>1.30</u>	<u>0.0</u>	<u>9.2</u>	<u>23.53</u>	<u>96</u>	<u>240</u>		

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-18</u>	<u>7-13-09</u>	<u>0727</u>	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			no	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-19	Screen Set:	Depth to Water: 11.0'	GWS QTR: 3
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 7-13-09	Page 1 of 1
Project Number: 24096838	Total Depth: 70	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume: 100 = 38.5 gal	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.01** at **24.14** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **78.6**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **24.14** °C

Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.5** mg/L at **24.14** °C

ORP: Standard **89** mV at **25** °C Reading **75** mV at **23.77** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-13-09 @ 0515** **2800 Pump on**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond <i>µMS/cm</i>	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0801	9	6.34	2.51	26.7	5.1	23.49	105	9		
0806	9	6.29	2.06	3.4	2.1	23.60	112	54		
0811	9	6.26	2.04	1.6	2.1	23.64	118	99		
0816	9	6.24	2.05	0.7	2.3	23.65	122	144		

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-19	7-13-09	0816							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			no	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: MH-20	Screen Set:	Depth to Water: 77.60	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-10-09	Page 1 of 1
Project Number: 24096838	Total Depth: 180	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume 1 CU = 67.6AL	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **23.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **75.1**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.448** S/cm at **23.8** °C

Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.6** mg/L at **23.8** °C

ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **23.59** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-10-09 @ 0512**

**0705 60
65
Pump ON, TTS**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0717	16 PM	6.91	1.69	8.1	7.7	26.49	128	12	-	-
0730	1	6.98	1.67	2.0	7.6	25.98	134	25	-	-
0745	1	6.96	1.67	0.0	7.6	24.87	144	40	-	-
0800	1	6.95	1.67	0.0	7.6	25.09	147	55	-	-
0815	1	6.95	1.67	0.0	7.6	25.67	141	70	-	-
0830	1	6.96	1.67	0.0	7.6	25.79	139	85	-	-
0845	1	6.97	1.67	0.0	7.6	25.87	140	100	-	-
0900	1	6.99	1.67	0.0	7.6	25.96	143	115	-	-
0915	1	7.01	1.67	0.0	7.6	26.16	147	130	-	-
0930	1	7.02	1.67	0.0	7.6	26.36	150	145	-	-
0945	1	7.03	1.67	0.0	7.6	26.64	151	160	-	-
0950	WELL DRY									
0900	1	6.96	1.60	18.7	8.0	33.07	133	-	-	-

7-13-09

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-20	7-13-09	0900	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			no	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-21</u>	Screen Set:	Depth to Water: <u>35.20</u>	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter: <u>4</u>	Date Measured: <u>7-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>78</u>	Measured From: <u>S.T.</u>	
Task Code: 10015	Dedicated Pump: <u>Yes</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 25.04 °C Turbidity: NTU: 0 = Reading 2.0 NTU: 100 = Reading 71.1

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 25.04 °C

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.5 mg/L at 25.04 °C

ORP: Standard 89 mV at 25 °C Reading 80 mg/L at 24.72 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-7-09 @ 0510

0704 Pump ON

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0705	8	6.43	3.31	20.9	2.4	23.05	29	8		
0707	8	6.16	3.82	1.5	1.3	23.02	38	24		
0710	8	6.15	3.83	4.1	1.0	23.04	43	48		
0711	WELL DRY									
0815	-	6.26	3.19	4.2	10.1	23.76	118	-	-	36.20

7-9-09
L →

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-21	7-9-09	0815		1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			no	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signatures]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-23</u>	Screen Set:	Depth to Water: <u>20.70</u>	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter: <u>4</u>	Date Measured: <u>7-7-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>78</u>	Measured From: <u>S.T.</u>	
Task Code: 10015	Dedicated Pump: <u>Yes</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 25.24 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 71.1

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 25.24 °C

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.5 mg/L at 25.24 °C

ORP: Standard 29 mV at 25 °C Reading 80 mg/L at 24.72 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-7-09 @ 0510

0844
Pump ON

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0845</u>	<u>10</u>	<u>6.52</u>	<u>4.53</u>	<u>25.8</u>	<u>2.0</u>	<u>23.80</u>	<u>36</u>	<u>10</u>	-	-
<u>0847</u>	<u>10</u>	<u>6.44</u>	<u>4.39</u>	<u>0.3</u>	<u>0.9</u>	<u>23.57</u>	<u>33</u>	<u>30</u>	-	-
<u>0850</u>	<u>10</u>	<u>6.42</u>	<u>4.35</u>	<u>0.0</u>	<u>0.6</u>	<u>23.55</u>	<u>30</u>	<u>60</u>	-	-
<u>0853</u>	<u>10</u>	<u>6.41</u>	<u>4.35</u>	<u>7.4</u>	<u>0.6</u>	<u>23.53</u>	<u>28</u>	<u>90</u>	-	-
<u>0854</u>	<u>WELL</u>	<u>DRY</u>	-	-	-	-	-	-	-	-
<u>7-9-09 1000</u>	-	<u>6.57</u>	<u>5.70</u>	<u>18.4</u>	<u>11.1</u>	<u>25.48</u>	<u>102</u>	-	-	<u>21.70</u>

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION:

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-23</u>	<u>7-9-09</u>	<u>1000</u>							
			<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
"VRP SUITE"									

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>mtl-27</u>	Screen Set:	Depth to Water: <u>19.90'</u>	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>7-13-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>80</u>	Measured From: <u>S.T.</u>	
Task Code: 10015	Dedicated Pump: <u>Yes</u>	Well Volume <u>1CV = 39.3</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 24.14 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 78.6

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.14 °C

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.5 mg/L at 24.14 °C 10/2

ORP: Standard 89 mV at 25 °C Reading 75 mg/L at 23.77 °C Pump on

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-13-09 @ 0515

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond <u>µS/cm</u>	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1013</u>	<u>11</u>	<u>6.45</u>	<u>4.71</u>	<u>28.8</u>	<u>10.1</u>	<u>23.91</u>	<u>73</u>	<u>11</u>	<u>—</u>	<u>—</u>
<u>1017</u>	<u>11</u>	<u>6.50</u>	<u>4.56</u>	<u>0.0</u>	<u>9.4</u>	<u>23.61</u>	<u>76</u>	<u>55</u>	<u>—</u>	<u>—</u>
<u>1021</u>	<u>11</u>	<u>6.50</u>	<u>4.55</u>	<u>0.0</u>	<u>9.2</u>	<u>23.66</u>	<u>75</u>	<u>99</u>	<u>—</u>	<u>—</u>
<u>1023</u>	<u>11</u>	<u>6.50</u>	<u>4.55</u>	<u>6.5</u>	<u>9.2</u>	<u>23.73</u>	<u>73</u>	<u>121</u>	<u>—</u>	<u>—</u>

NOTES: dup 20090713H

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)			(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>mtl-27</u>	<u>7-13-09</u>	<u>1023</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

"VRP SUITE"
 Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>MH-28</u>	Screen Set:	Depth to Water: <u>407.00</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>4</u>	Date Measured: <u>7-20-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>475</u>	Measured From: <u>S.T.</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume <u>1 CV = 50 x 3 = 150 gal</u>	

6" = 1.47 gal/ft Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 24.13 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 80

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.2150 S/cm at 24.13 °C

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 9.2 mg/L at 24.13 °C

ORP: Standard 89 mV at 25 °C Reading 70 mg/L at 23.80 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7/20/09 9:07:20 his

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond ms/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1215</u>	<u>20</u>	<u>6.87</u>	<u>5.75</u>	<u>71000</u>	<u>1.4</u>	<u>27.21</u>	<u>22</u>	<u>40</u>		<u>-</u>
<u>1218</u>	<u>20</u>	<u>6.58</u>	<u>8.37</u>	<u>236.0</u>	<u>5.0</u>	<u>26.84</u>	<u>23</u>	<u>100</u>		<u>425.78</u>
<u>1221</u>	<u>20</u>	<u>6.46</u>	<u>8.52</u>	<u>496.0</u>	<u>4.9</u>	<u>26.69</u>	<u>30</u>	<u>160</u>		<u>425.79</u>
<u>1225</u>	<u>20</u>	<u>6.42</u>	<u>8.58</u>	<u>188.0</u>	<u>5.3</u>	<u>26.72</u>	<u>43</u>	<u>220</u>		<u>425.70</u>

NOTES:

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>MH-28</u>	<u>7-20</u>	<u>1225</u>	<input checked="" type="checkbox"/>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<input checked="" type="checkbox"/>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<input checked="" type="checkbox"/>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<input checked="" type="checkbox"/>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>

"VRP SUITE"

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

63

Groundwater Well Sampling Log

Site ID.: MH-29	Arrival Date/Time: 8/6/09 0745	Sampler(s): KV/AH/AA
Total Depth: 475	Screen Interval: -	Well Diameter: 4"
Static Water Level: 376.4	1 Casing Volume: 64.4	3 Casing Volumes: 193.1
Sampling Device: IPP (Pump)	Pump Depth: -	Pump Start Time: 0755
Weather Conditions: Cloudy	Location Condition: SECURE	Departure Date/Time: 8/6/09 0821

Time	Flow Rate Gal/Min	Volume Pumped	W/L Feet	pH units	Temp °C	Cond umhos	Dissolved O ₂ -%	Turbidity NTU	ORP mv	Notes
0755	20	80	376.4	6.40	25.18	3310	1.0016	11.8	31	
0759	20	80	377.7	6.43	25.37	3350	1.0015	KAV > 100	-5	
0803	20	160	377.5	6.37	25.42	3440	1.0026	28.2	-0	
0807	20	240	378.77	6.39	25.46	3440	1.0029	39.3	5	

KAV 8/6/09

Calibration for Horiba K20 8/6/09

	pH	Temp	K	Turb.	DO	ORP
STD	4.0	24.4	0.449	0.8	8.18	88
RD	7.05		0.461	1.9	8.0	88
ADJ	4.01		0.449	0.0	8.5	-

100 Turbidity standard = 104

Comments: Collected ambient TB and Radiochemistry at 0807

online conversion →

~~Maintaining DO in mg/L~~

RS - 10/28/09 - not sure if Korky is converting mg/L to DO properly. Looks like a decimal move. OK AS is

1 mg/l DO = 1 ppm

1 ppm = 1 mg/L → ppm to DO = $\frac{ppm}{1000}$

SAMPLING DATA SHEET

Well ID: MH-30	Screen Set:	Depth to Water: 413.40	GWS QTR: 3
Project Name: FMI Sierrita	Well Diameter: 5	Date Measured: 7-20-09	Page 1 of 1
Project Number: 24096838	Total Depth: 535	Measured From: S.T.	
Task Code: 10015	Dedicated Pump:	Well Volume: 46550 3-240	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 24.13 °C	Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 80.4
Conductivity: Standard 0.449 S/cm at 25 °C	Reading 0.450 S/cm at 24.13 °C
Dissolved Oxygen: Standard 8.25 mg/L at 24 °C	Reading 9.2 mg/L at 24.13 °C
ORP: Standard 89 mV at 25 °C	Reading 70 mg/L at 23.80 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)	7/20/09 @ 0705

5" = 1 gal/ft
 FT
 1 CV = 122
 3 CV = 366

1004
 Start

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µmS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1008	20	6.73	2.10	369.0	1.1	29.08	-211	80		443.40
1012	20	6.55	2.14	213.0	2.8	30.48	-162	160		466.00
1016	20	6.44	2.28	218.0	3.3	29.53	34	240		482.40
1018	20	6.44	2.52	110.0	3.8	29.99	57	320		490.40
1023	20	6.50	2.69	159.0	3.9	30.20	62	420		NM

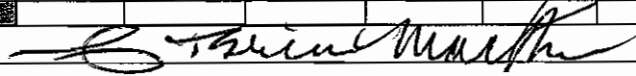
NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
MH-13	7/20	1023							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-1	Screen Set:	Depth to Water: 149.60	GWS QTR: 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 190	Measured From: TOC	
Task Code: 10015	Dedicated Pump: No	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.01** at **25.04** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **91.1**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **25.04** °C

Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.5** mg/L at **25.04** °C

ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **24.72** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-7-09 @ 0510** **1128 Pump On**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1142	6 gpm	8.34	2.76	20.2	7.3	31.96	31	50 gpm / 1 hr	-	152.9
1144	0.5	6.30	0.012	112.0	7.3	31.72	123	2	-	152.95
1145	0.5	5.50	0.013	78.2	7.1	32.33	175	2.5	-	153.0
1150	0.5	5.33	0.392	955.0	8.5	33.06	164	5.0	-	153.5
1155	0.5	6.19	0.539	605.0	7.8	33.99	144	7.5	-	154.30
1200	0.5	6.32	0.554	528.0	7.6	34.06	143	10	-	154.40
1205	0.5	6.41	0.551	445.0	7.5	33.50	144	12.5	-	154.30
1210	0.5	6.41	0.534	137.0	7.2	33.39	144	15.0	-	154.30
1215	0.5	6.43	0.522	121.0	7.3	33.16	146	17.5	-	154.30
1220	0.5	6.44	0.534	146.0	7.2	33.05	146	20	-	154.35

NOTES: **Turbidity not stabilizing.**

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-1	7-7-09	1220							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / ice	No	Nitrates	ACZ-Yellow Dot
				500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
				40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): *[Signatures]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-2	Screen Set:	Depth to Water: 46.45	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-10-09	Page 1 of 1
Project Number: 24096838	Total Depth: 108	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **23.8** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **75.1**
 Conductivity: Standard **0.149** S/cm at 25 °C Reading **0.448** S/cm at **23.8** °C
 Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.6** mg/L at **23.8** °C
 ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **23.53** °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-10-09 @ 0512** **1110 pump or**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1111	13	6.00	8.22	156.0	2.4	24.82	101	13	-	-
1113	13	5.99	7.62	80.0	1.1	24.27	99	39	-	-
1115	13	5.97	7.47	7.0	0.9	24.92	96	65	-	-
1117	Well DRY									
1116	-	6.26	9.70	26.80	10.8	26.48	82	-	-	-

7-13-09

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-2	7-13-09	1116	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-3	Screen Set:	Depth to Water: 34.0	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-8-09	Page 1 of 1
Project Number: 24096838	Total Depth: 80	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **22.75** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **77.9**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **22.75** °C

Dissolved Oxygen: Standard **8.39** mg/L at **23** °C Reading **8.9** mg/L at **22.75** °C **Start Pump 1029**

ORP: Standard **95** mV at **20** °C Reading **80** mg/L at **22.40** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-8-09 @ 0515**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	ENORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1030	8	6.43	5.05	33.2	1.5	23.46	-6	8	-	-
1033	8	6.37	4.95	80.8	0.9	23.49	-23	32	-	-
1036	8	6.34	4.90	25.7	0.9	23.55	-15	56	-	-
1037	Well	DRY								
0930	-	6.53	6.62	119.0	4.1	24.88	1	0	-	39.25

7-9-09

NOTES: **~ 8 min purge to dry.**

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-3	7-9-09	0930							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): **[Signature]** **[Signature]** **[Signature]**

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-4	Screen Set:	Depth to Water: 18.0	GWS QTR 3
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 7-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 70	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.01** at **25.04** °C Turbidity: NTU: 0 = Reading **0** NTU: 100 = Reading **71.1**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **25.04** °C

Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.5** mg/L at **25.04** °C

ORP: Standard **89** mV/L at **25** °C Reading **80** mg/L at **24.72** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-7-09 @ 0510** **0914** *Pump On*

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µmS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EN/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0914	22	6.53	5.95	12.8	4.3	22.71	-84	12	-	-
0915	22	6.58	5.88	5.1	5.0	22.57	-102	22	-	-
0916	22	6.60	5.76	1.7	5.2	22.49	-116	44	-	-
0917	Well	ORP	-	-	-	-	-	-	-	-
1030	-	6.60	5.81	41.6	12.8	24.92	-17	-	-	18.25

NOTES:

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-4	7-7-09	1030							
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): *[Signatures]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chlorida, fluoride, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese,
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese,
 mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>PZ-5</u>	Screen Set:	Depth to Water: <u>28.65</u>	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter: <u>.4</u>	Date Measured: <u>7-10-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>70</u>	Measured From: <u>S.T.</u>	
Task Code: 10015	Dedicated Pump: <u>Yes</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.8 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 75.1

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 23.8 °C

Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 23.8 °C

ORP: Standard 89 mV at 25 °C Reading 80 mg/L at 23.53 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-10-09 @ 0512 1144 Pump On

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1145</u>	<u>8</u>	<u>6.52</u>	<u>8.52</u>	<u>46.4</u>	<u>1.6</u>	<u>24.3</u>	<u>-59</u>	<u>8</u>	-	-
<u>1147</u>	<u>8</u>	<u>6.52</u>	<u>8.51</u>	<u>20.0</u>	<u>0.7</u>	<u>23.87</u>	<u>-46</u>	<u>24</u>	-	-
<u>1150</u>	<u>8</u>	<u>6.51</u>	<u>8.49</u>	<u>9.9</u>	<u>0.7</u>	<u>23.90</u>	<u>-43</u>	<u>164836</u>	-	-
<u>1151</u>	<u>WELL DRY</u>									
<u>1150</u>	<u>-</u>	<u>6.61</u>	<u>9.5</u>	<u>34.5</u>	<u>2.8</u>	<u>27.95</u>	<u>-21</u>	-	-	-

7/13/09

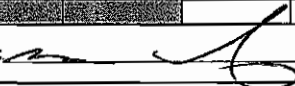
NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>PZ-5</u>	<u>7/13/09</u>	<u>1150</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-6	Screen Set:	Depth to Water: 39.0	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 78	Measured From: S.T	
Task Code: 10015	Dedicated Pump: Yes	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.01** at **25.04** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **71.1**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **25.04** °C

Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.5** mg/L at **25.04** °C

ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **24.72** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-7-09 @ 0510** **0742 Pump on**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µmS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0742	22	6.05	5.26	51.3	2.9	23.02	197	12	-	-
0743	22	5.39	9.8	48.9	1.5	22.96	197	22	-	-
0744	WELL	OK								
1115	-	5.98	6.00	149.0	11.4	26.02	162	-	-	244

7-8-09

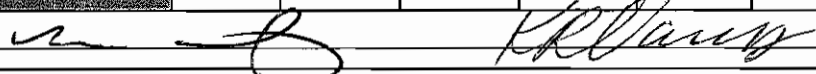
NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-6	7-8-09	1115							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
VRP SUITE									

Samplers Signature(s): 

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-7	Screen Set:	Depth to Water: 140.22'	GWS QTR: 3
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 7-21-09	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: 150	Measured From: TOC	
Task Code: 10015	Dedicated Pump: NO	Well Volume: NA	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

HOLD INSTRUMENT CALIBRATION

Ph: pH: 4.00- 4.10 at 23.15 °C Conductivity: Standard 0.449 S/cm at 25 °C Dissolved Oxygen: Standard 8.85 mg/L at 24 °C ORP: Standard 89 mV at 25 °C	Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 86 Reading 0.449 S/cm at 23.50 °C Reading 8.7 mg/L at 23.50 °C Reading 70 mg/L at 23.35 °C
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Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

1440
Pump ON

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate (mL/min)	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
1457	100	6.75	1.81	13.4	9.1	27.81	167	-	-	140.42
1500	100	6.60	1.71	4.3	7.7	26.83	172	-	-	140.42
1505	100	6.57	1.53	0.0	7.2	26.67	176	-	-	140.47
1510	100	6.56	1.51	0.6	7.1	26.57	179	-	-	140.53
1515	100	6.55	1.48	0.0	7.1	26.13	183	-	-	140.55
1518	100	6.55	1.46	0.0	7.0	25.95	184	-	-	140.57

NOTES:

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-7	7-21	1518							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

"VRP SUITE"

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; **Cations:** calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-8	Screen Set:	Depth to Water: 224.80	GWS QTR 3
Project Name: FMI Sierra	Well Diameter: 4	Date Measured: 7-7-09	Page 1 of 1
Project Number: 24096838	Total Depth: 275	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume 3 CU = 100 GAL	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.01** at **25.04** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **71.1**

Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.449** S/cm at **25.04** °C

Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.5** mg/L at **25.04** °C

ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **24.72** °C *Pump On*

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-7-09 @ 0510 0622**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0623	8	6.10	1.15	27.9	3.3	23.4	-119	8		224
0627	8	6.27	1.12	80.7	3.6	25.2	-103	32		252
0628	Well		DRY							
0725	-	6.61	1.18	157.0	9.2	24.96	-51	-	-	225.70

NOTES:

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-8	7-9-09	0725							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
<i>AMBIENT TO WRD</i>			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): *[Signatures]*

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-16	Screen Set:	Depth to Water: 21.85	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter: 4	Date Measured: 7-10-09	Page 1 of 1
Project Number: 24096838	Total Depth: 80	Measured From: S.T.	
Task Code: 10015	Dedicated Pump: Yes	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.00** at **23.8** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **75.1**
 Conductivity: Standard **0.449** S/cm at 25 °C Reading **0.448** S/cm at **23.8** °C
 Dissolved Oxygen: Standard **8.25** mg/L at **24** °C Reading **8.6** mg/L at **23.8** °C **0621**
 ORP: Standard **89** mV at **25** °C Reading **80** mg/L at **23.59** °C **pump on**
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **7-10-09 @ 0512**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond mS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0622	9	6.01	7.43	5.3	3.5	22.62	94	9	-	-
0625	9	6.00	7.15	0.0	2.9	22.48	93	36	-	-
0628	9	6.06	7.23	1.6	2.8	22.50	94	63	-	-
0629	Well Dry									
0625	-	6.04	6.87	0.0	8.6	22.84	109	-	-	-

7/13/09

NOTES:

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-16	7/13/09	0625	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			✓	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: PZ-2007-05	Screen Set:	Depth to Water: 247.15'	GWS QTR: 3
Project Name: FMI Sierrita	Well Diameter: 2	Date Measured: 7-21-09	Page 1 of 1
Project Number: 24096838	Total Depth: 288	Measured From: TOC	
Task Code: 10015	Dedicated Pump: N/O	Well Volume: 1CV = 6.65 gal	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.10 at 23.50°C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 86.0
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 23.50 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.7 mg/L at 23.50 °C
 ORP: Standard 89 mV at 25 °C Reading 70 mg/L at 23.35 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7/21/09 @ 0715
 0925 Pump on

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0938	16PM	6.42	2.58	628.0	5.9	28.90	137	13	1.95	NM
0945	1	6.30	2.54	86.9	4.7	26.86	153	20	3.00	NM
0952	1	6.29	2.52	23.3	4.5	26.26	157	27	4.06	NM

NOTES: Gallons Purged includes volume to clear well tubing

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
PZ-2007-05	7/21	0952							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			✓	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
VRP SUITE									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Amargosa Intercept</u>	Screen Set:	Depth to Water:	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter: <u>Sump</u>	Date Measured: <u>6-25-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>?</u>	Measured From: <u>Sounding Tube</u>	
Task Code: 10015	Dedicated Pump: <u>Yes</u>	Well Volume: <u>N/A</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 24.3 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 73.0
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 24.30 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.5 mg/L at 24.30 °C
 ORP: Standard 89 mV/L at 25 °C Reading 115 mg/L at 24.6 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-25-09 0730 hrs

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1220</u>	<u>150 GPM</u>	<u>3.59</u>	<u>18.6</u>	<u>5.2</u>	<u>3.8</u>	<u>25.8</u>	<u>301</u>	<u>~ 80</u>	<u>N/A</u>	

NOTES: Pump No. 1 - Pumps to Rake Pond No. 2

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bail Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Amargosa Intercept</u>	<u>6-25-09</u>	<u>1220</u>							
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			<input type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, uranium isotopes 234 235 238, and adjusted gross elpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: B Sump	Screen Set:	Depth to Water: NM	GWS QTR 3
Project Name: FMI Sierrita	Well Diameter:	Date Measured: 6-26-09	Page 1 of 7
Project Number: 24096838	Total Depth:	Measured From: N/A	
Task Code: 10015	Dedicated Pump:	Well Volume N/A	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = **4.0** at **23.3** °C Turbidity: NTU: 0 = Reading **0.0** NTU: 100 = Reading **71.8**

Conductivity: Standard **0.448** S/cm at 25 °C Reading **0.448** S/cm at **23.3** °C

Dissolved Oxygen: Standard **8.39** mg/L at **23** °C Reading **8.7** mg/L at **23.3** °C

ORP: Standard **89** mV at **25** °C Reading **108** mg/L at **23.8** °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) **6-26-09 @ 0735**

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
0812	~100 gpm	3.21	10.9	61.0	4.7	29.7	329	250	-	NM

NOTES: **Pump 1 - At Duval Canal in 5 gal Bucket**

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
B Sump	6-26-09	0812							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Bailey Lake</u>	Screen Set: <u>NA</u>	Depth to Water: <u>Surface</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>NA</u>	Date Measured: <u>6-25-09</u>	
Project Number: <u>24096838</u>	Total Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= 4.0 at 24.30°C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 73.2
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 24.30 °C
 Dissolved Oxygen: Standard 4.31 mg/L at 23 °C Reading 8.5 mg/L at 24.30 °C
 ORP: Standard 89 mV at 25 °C Reading 115 mg/L at 24.6 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-25-09 0730 HIS

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0930</u>	<u>-</u>	<u>2.54</u>	<u>31.3</u>	<u>5.1</u>	<u>8.5</u>	<u>22.7</u>	<u>535</u>	<u>-</u>	<u>-</u>	<u>NA</u>

NOTES: 5 gal Bucket / Peri Pump

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Bailey Lake</u>	<u>6-25-09</u>	<u>0930</u>	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: Decant Solution Screen Set: _____ Depth to Water: NA GWS QTR 3
 Project Name: FMI Sierrita Well Diameter: _____ Date Measured: 7-15-09 Page 1 of 1
 Project Number: 24096638 Total Depth: _____ Measured From: NA
 Task Code: 10015 Dedicated Pump: _____ Well Volume: _____

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00=4.0 at 21.14 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 79.4
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.14 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 24.14 °C
 ORP: Standard 89 mV at 25 °C Reading 75 mg/L at 24.01 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008)

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond µmS/cm	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1340</u>	-		<u>2.94</u>	<u>525.0</u>	<u>1.7</u>	<u>29.23</u>	<u>-272</u>	-	-	<u>Surface</u>

NOTES: 5 gal bucket from pond discharge inlet, per pump.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Decant Soln</u>	<u>7/15</u>	<u>1340</u>							
			<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Former B Pond</u>	Screen Set:	Depth to Water:	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>6-26-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth:	Measured From: <u>Ground Level / ManWay</u>	
Task Code: 10015	Dedicated Pump:	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.3 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 71.8

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 23.3 °C

Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.7 mg/L at 23.3 °C

ORP: Standard 89 mV at 25 °C Reading 108 mg/L at 23.4 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-26-09 @ 0735

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cnd (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0920</u>	<u>NA</u>	<u>3.29</u>	<u>26.1</u>	<u>150.0</u>	<u>2.4</u>	<u>21.9</u>	<u>456</u>	<u>-</u>	<u>-</u>	

NOTES: 5 gal bucket dipped from samp.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Former B Pond</u>	<u>6-26-09</u>	<u>0920</u>							
			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
"VRP SUITE"									

Samplers Signature(s): [Signature] [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>Headwall No. 1</u>	Screen Set: <u>NA</u>	Depth to Water: <u>Surface</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>NA</u>	Date Measured: <u>6-25-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NA</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 24.30 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 73.2

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 24.30 °C

Dissolved Oxygen: Standard 8.9 mg/L at 23 °C Reading 8.5 mg/L at 24.30 °C

ORP: Standard 89 mV at 25 °C Reading 115 mV at 24.6 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-25-09 0730 NIS

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond M(S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0840</u>	-	<u>2.52</u>	<u>30.9</u>	<u>7.7</u>	<u>7.3</u>	<u>21.1</u>	<u>525</u>	-	-	

NOTES: 5-gal bucket / Per Pump

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett X Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall No. 1</u>	<u>6-25-09</u>	<u>0840</u>	<u>✓</u>	1 gal	1	HNO ₃	Yes	Radiochemistry	Paragon
			<u>✓</u>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<u>✓</u>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<u>✓</u>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<u>NO</u>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<u>NO</u>	40 mL VOA	3	HCL	No	VOC	ACZ
			<u>✓</u>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<u>✓</u>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signature] [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha

Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)

Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate

Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃; Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: Headwall No. 2 Screen Set: N/A Depth to Water: N/A - Surface GWS QTR 3
Project Name: FMI Sierrita Well Diameter: N/A Date Measured: 6-26-09
Project Number: 24096838 Total Depth: N/A Measured From: N/A Page 1 of 1
Task Code: 10015 Dedicated Pump: NO Well Volume

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.3 C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 71.8
Conductivity: Standard 0.449 S/cm at 25 C Reading 0.448 S/cm at 23.3 C
Dissolved Oxygen: Standard 8.39 mg/L at 23 C Reading 8.7 mg/L at 23.3 C
ORP: Standard 89 mV at 25 C Reading 108 mg/L at 23.8 C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-26-09 0735

WELL PURGING AND STABILIZATION PARAMETERS

Table with 11 columns: Time, Discharge Rate, pH, Spec. Cond, Turbidity, Dissolved Oxygen, Temp, Eh/ORP, Gallons Purged, Casing Vol., Depth to Water. Row 1 contains data: 11:15, -, 2.80, 30.0, 39.1, 11.5, 14.1, 533, -, -, Surface.

NOTES: Seal bucket - dip from headwall

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (v): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett X Other

Table with 10 columns: Sample ID, Date, Time, (v) if Filled, Container Type, Number of Containers, Preservative, Filtered Yes/No, Analysis, Comments. Includes entries for Headwall No. 2 with various sample types and volumes.

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Headwall No. 3</u>	Screen Set: <u>NA</u>	Depth to Water: <u>NA-Surface</u>	GWS QTR <u>3</u>
Project Name: FMI Sierrita	Well Diameter: <u>NA</u>	Date Measured: <u>6-26-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00=4.0 at 23.3 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 71.8
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 23.3 °C
 Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.7 mg/L at 23.3 °C
 ORP: Standard 89 mV at 25 °C Reading 108 mg/L at 23.8 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-26-09 0735

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1150</u>	<u>-</u>	<u>3.04</u>	<u>29.1</u>	<u>11.2</u>	<u>8.6</u>	<u>24.6</u>	<u>527</u>	<u>-</u>	<u>-</u>	<u>Surface</u>

NOTES: Sgal bucket from Pond.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Headwall</u>	<u>6/26/09</u>	<u>1150</u>	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
<u>Wa. 3</u>			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ /Ice	No	Nitrates	ACZ-Yellow Dot
			<input type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: Headwall No. 5 Screen Set: NA Depth to Water: Surface GWS QTR 3
Project Name: FMI Sierrita Well Diameter: NA Date Measured: 6-26-09 Page 1 of 1
Project Number: 24096838 Total Depth: NA Measured From: NA
Task Code: 10015 Dedicated Pump: NO Well Volume: /

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft
FIELD INSTRUMENT CALIBRATION

PH: pH: 4.00= 4.0 at 23.3 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 71.8
Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 23.3 °C
Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.7 mg/L at 23.3 °C
ORP: Standard 89 mV at 25 °C Reading 108 mg/L at 23.8 °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-26-09 0735

WELL PURGING AND STABILIZATION PARAMETERS

Table with columns: Time, Discharge Rate, pH, Spec. Cond (ms/cm), Turbidity (NTU), Dissolved Oxygen (mg/L), Temp °C, Eh/ORP (mV), Gallons Purged, Casing Vol., Depth to Water. Row 1: 1230, -, 3.60, 24.3, 21.6, 9.0, 24.1, 425, -, -, Surface.

NOTES: 5 gal barked - dip from pond.
Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett X Other

Table with columns: Sample ID, Date, Time, (✓) if Filled, Container Type, Number of Containers, Preservative, Filtered Yes/No, Analysis, Comments. Rows include 1 gal HNO3, 500 mL None, 250 mL H2SO4/Ice, 500 mL NaOH, 40 mL VOA HCL, 250 mL None, 250 mL HNO3.

Samplers Signature(s): [Signatures]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO3, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO3: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Intercept No. 1</u>	Screen Set: <u>NA</u>	Depth to Water: <u>20.25</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>5amp</u>	Date Measured: <u>6-25-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>?</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Res</u>	Well Volume: <u>?</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00= <u>4.0</u> at <u>24.3</u> °C	Turbidity: NTU: 0 = Reading <u>0</u> NTU: 100 = Reading <u>73.2</u>
Conductivity: Standard <u>0.4498</u> S/cm at 25 °C	Reading <u>0.448</u> S/cm at <u>24.30</u> °C
Dissolved Oxygen: Standard <u>8.31</u> mg/L at <u>23</u> °C	Reading <u>8.5</u> mg/L at <u>24.70</u> °C
ORP: Standard <u>89</u> mV at <u>25</u> °C	Reading <u>115</u> mg/L at <u>24.6</u> °C
Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) <u>6-25-09 0730 h-s</u>	

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (ms/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1010</u>	<u>~30</u>	<u>3.37</u>	<u>23.5</u>	<u>0.0</u>	<u>3.9</u>	<u>24.8</u>	<u>353</u>	<u>25</u>	<u>NA</u>	<u>20.25</u>

NOTES: Pump is manual mode to sample. Switch back to auto.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Intercept No 1</u>	<u>6-25</u>	<u>1010</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signatures]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @160, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

15 Well ID: Amesbury Intercept ^{NO 2} Screen Set: N/A Depth to Water: 10.67 GWS QTR 3

Project Name: FMI Sierrita Well Diameter: Sump Date Measured: 6-26-09

Project Number: 24096838 Total Depth: ? Measured From: m P Top of Sump Page 1 of 1

Task Code: 10015 Dedicated Pump: Yes Well Volume

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.0 at 23.3 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 71.8

Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 23.3 °C

Dissolved Oxygen: Standard 8.39 mg/L at 23 °C Reading 8.7 mg/L at 23.3 °C

ORP: Standard 89 mV at 25 °C Reading 108 mg/L at 23.8 °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-26-09 0735

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (ms/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>0955</u>	<u>0.56pm</u>	<u>6.55</u>	<u>0.90</u>	<u>3.4</u>	<u>6.8</u>	<u>33.8</u>	<u>159</u>	<u>-</u>	<u>-</u>	<u>10.67</u>

NOTES: Pump running at time of Sample Collection.

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) If Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Amesbury</u>	<u>6-26-09</u>	<u>0955</u>							
<u>Amesbury</u>			<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
<u>Amesbury</u>			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
<u>Amesbury</u>			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄ / Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
<u>Amesbury</u>			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
<u>Amesbury</u>			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
<u>Amesbury</u>			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
<u>Amesbury</u>			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
<u>"VRP SUITE"</u>									

Samplers Signature(s): [Signature] A. J. J.

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Raffinate Pond No. 2</u>	Screen Set: <u>NA</u>	Depth to Water: <u>Surface</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierra</u>	Well Diameter: <u>NA</u>	Date Measured: <u>6-25-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>NA</u>	Measured From: <u>NA</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>Yes</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.10 at 24.3 °C Turbidity: NTU: 0 = Reading 0 NTU: 100 = Reading 73.2
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.448 S/cm at 24.30 °C
 Dissolved Oxygen: Standard 6.39 mg/L at 23 °C Reading 8.5 mg/L at 24.30 °C
 ORP: Standard 89 mV at 25 °C Reading 115 mg/L at 24.6 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6-25-09 0730 hrs

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1110</u>	<u>-</u>	<u>2.47</u>	<u>32.8</u>	<u>2.0</u>	<u>3.9</u>	<u>22.8</u>	<u>406</u>	<u>-</u>	<u>-</u>	<u>NA</u>

NOTES: _____

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Raffinate Pond No. 2</u>	<u>6/25</u>	<u>1110</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): _____

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>Reclaim Pond</u>	Screen Set:	Depth to Water: <u>NA</u>	GWS QTR: <u>3</u>
Project Name: FMI Sierrita	Well Diameter:	Date Measured: <u>7-15-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth:	Measured From: <u>NA</u>	
Task Code: 10015	Dedicated Pump:	Well Volume:	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = <u>4.0</u> at <u>21.4</u> °C	Turbidity: NTU: 0 = Reading <u>0.0</u> NTU: 100 = Reading <u>79.4</u>
Conductivity: Standard <u>0.449</u> S/cm at 25 °C	Reading <u>0.449</u> S/cm at <u>24.14</u> °C
Dissolved Oxygen: Standard <u>0.25</u> mg/L at <u>24</u> °C	Reading <u>8.6</u> mg/L at <u>24.14</u> °C
ORP: Standard <u>89</u> mV/L at <u>25</u> °C	Reading <u>75</u> mg/L at <u>24.07</u> °C

Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 7-15-09 @ 0808

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond <u>ns/cm</u>	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	EH/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1255</u>	<u>-</u>	<u>6.94</u>	<u>4.17</u>	<u>112.0</u>	<u>8.2</u>	<u>27.55</u>	<u>160</u>	<u>-</u>	<u>-</u>	<u>Surface</u>

NOTES: 5 gal bucket from setting basin, peristaltic pump.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)	(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>Reclaim Pond</u>	<u>7-15-09</u>	<u>1255</u>	<input checked="" type="checkbox"/>	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			<input checked="" type="checkbox"/>	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			<input checked="" type="checkbox"/>	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			<input checked="" type="checkbox"/>	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			<input checked="" type="checkbox"/>	40 mL VOA	3	HCL	No	VOC	ACZ
			<input checked="" type="checkbox"/>	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			<input checked="" type="checkbox"/>	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: *Cations: calcium, magnesium, potassium, and sodium*

SAMPLING DATA SHEET

Well ID: <u>SX Sump 1</u>	Screen Set: <u>NA</u>	Depth to Water: <u>8.40'</u> ✓	GWS QTR <u>3</u>
Project Name: FMI Sierra	Well Diameter: <u>Sump 20"</u>	Date Measured: <u>6-30-09</u>	Page <u>1</u> of <u>1</u>
Project Number: 24096838	Total Depth: <u>UNK</u>	Measured From: <u>FOC</u>	
Task Code: 10015	Dedicated Pump: <u>NO</u>	Well Volume <u>UNK</u>	

Well Volumes: 3/8" = 0.0025 gal./ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00=4.01 at 24.30 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 81.2
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.30 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 24.30 °C
 ORP: Standard 89 mV at 25 °C Reading 90 mg/L at 24.05 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6/30/07 + 0820

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1305</u>	<u>86PM</u>	<u>3.3</u>	<u>19.0</u>	<u>527</u>	<u>1.4</u>	<u>26.58</u>	<u>404</u>			

NOTES: Purged for 10 min with sump pump.

Stabilization	(+/- 0.1)	(+/- 5%)	(+/- 10%)	(+/- 10%)	(+/- 1)	(+/- 10)		(+/- 0.3 ft.)
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SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX Sump 1</u>	<u>6-30-09</u>	<u>1305</u>							
			✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s):

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>SX Sump-2</u>	Screen Set: <u>NA</u>	Depth to Water: <u>8.80'</u>	GWS QTR <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>5m^{80"}</u>	Date Measured: <u>6-30-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>?</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal./ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 24.30 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 81.2
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.30 °C
 Dissolved Oxygen: Standard 8.15 mg/L at 24 °C Reading 8.6 mg/L at 24.30 °C
 ORP: Standard 89 mV at 25 °C Reading 90 mg/L at 24.05 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6/30/09 @ 8:20

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate	pH	Spec. Cond (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	En/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1022</u>	<u>560pm</u>	<u>2.79</u>	<u>19.3</u>	<u>>1000</u>	<u>5.1</u>	<u>25.55</u>	<u>467</u>	<u>50</u>	<u>unk</u>	<u>8.80</u>

NOTES: Purged for 10 min with sump pump.

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailor Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX Sump-2</u>	<u>6-30-09</u>	<u>1022</u>	<u>✓</u>	<u>1 gal</u>	<u>1</u>	<u>HNO₃</u>	<u>No</u>	<u>Radiochemistry</u>	<u>Paragon</u>
			<u>✓</u>	<u>500 mL</u>	<u>1</u>	<u>None</u>	<u>No</u>	<u>Wet Chem.</u>	<u>ACZ-Raw</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>H₂SO₄/Ice</u>	<u>No</u>	<u>Nitrates</u>	<u>ACZ-Yellow Dot</u>
			<u>NO</u>	<u>500 mL</u>	<u>1</u>	<u>NaOH</u>	<u>No</u>	<u>Cyanide, total</u>	<u>ACZ-Purple Dot</u>
			<u>NO</u>	<u>40 mL VOA</u>	<u>3</u>	<u>HCL</u>	<u>No</u>	<u>VOC</u>	<u>ACZ</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>None</u>	<u>Yes</u>	<u>Wet Chem. Dslvd.</u>	<u>ACZ-White Dot</u>
			<u>✓</u>	<u>250 mL</u>	<u>1</u>	<u>HNO₃</u>	<u>Yes</u>	<u>Metals Dslvd.</u>	<u>ACZ-Green Dot</u>
"VRP SUITE"									

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium

SAMPLING DATA SHEET

Well ID: <u>SX-Sump 3</u>	Screen Set: <u>NA</u>	Depth to Water: <u>10.59</u>	GWS QTR: <u>3</u>
Project Name: <u>FMI Sierrita</u>	Well Diameter: <u>5.25"</u>	Date Measured: <u>6-30-09</u>	Page <u>1</u> of <u>1</u>
Project Number: <u>24096838</u>	Total Depth: <u>UNK</u>	Measured From: <u>TOC</u>	
Task Code: <u>10015</u>	Dedicated Pump: <u>NO</u>	Well Volume: <u>NA</u>	

Well Volumes: 3/8" = 0.0025 gal/ft. 1/4" = 0.0014 gal/ft. 4" = 0.66 gal/ft 2" = 0.163 gal/ft

FIELD INSTRUMENT CALIBRATION

Ph: pH: 4.00 = 4.01 at 24.30 °C Turbidity: NTU: 0 = Reading 0.0 NTU: 100 = Reading 81.2
 Conductivity: Standard 0.449 S/cm at 25 °C Reading 0.449 S/cm at 24.30 °C
 Dissolved Oxygen: Standard 8.25 mg/L at 24 °C Reading 8.6 mg/L at 24.30 °C
 ORP: Standard 99 mV at 25 °C Reading 90 mg/L at 24.05 °C
 Date / Time of Calibration(s): (for Horiba U22 XD sn: 8153008) 6/30/07 @ 8:20

WELL PURGING AND STABILIZATION PARAMETERS

Time	Discharge Rate (gpm)	pH	Spec. Cond (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp °C	Eh/ORP (mV)	Gallons Purged	Casing Vol.	Depth to Water
<u>1110</u>	<u>6.0</u>	<u>2.98</u>	<u>15.9</u>	<u>498.0</u>	<u>2.8</u>	<u>25.93</u>	<u>424</u>	<u>72</u>	<u>UNK</u>	<u>10.59</u>

NOTES: Purged for 12 min with sump pump.

Stabilization (+/- 0.1) (+/- 5%) (+/- 10%) (+/- 10%) (+/- 1) (+/- 10) (+/- 0.3 ft.)

SAMPLE COLLECTION

Sampling Method (✓): Dedicated Pump Non-Dedicated Pump Hand Bailer Low Flow/Micropurge Bennett Other

Sample ID	Date	Time	(✓) if Filled	Container Type	Number of Containers	Preservative	Filtered Yes/No	Analysis	Comments
<u>SX-Sump 3</u>	<u>6/30/09</u>	<u>1110</u>	✓	1 gal	1	HNO ₃	No	Radiochemistry	Paragon
			✓	500 mL	1	None	No	Wet Chem.	ACZ-Raw
			✓	250 mL	1	H ₂ SO ₄ / Ice	No	Nitrates	ACZ-Yellow Dot
			NO	500 mL	1	NaOH	No	Cyanide, total	ACZ-Purple Dot
			NO	40 mL VOA	3	HCL	No	VOC	ACZ
			✓	250 mL	1	None	Yes	Wet Chem. Dslvd.	ACZ-White Dot
			✓	250 mL	1	HNO ₃	Yes	Metals Dslvd.	ACZ-Green Dot
"VRP SUITE"									

Samplers Signature(s): [Signature] [Signature]

Radiochemistry: gross alpha/beta, radium 226, radium 228, uranium isotopes 234 235 238, and adjusted gross alpha
 Wet Chemistry - Raw: alkalinity as CaCO₃, conductivity @25C, pH, and TDS (ratio-measured/calculated)
 Wet Chemistry - White Dot: chloride, fluoride, residue filterable (TDS) @180, and sulfate
 Metals, Dissolved - Green Dot: aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, thallium, uranium, zinc, and hardness as CaCO₃: Cations: calcium, magnesium, potassium, and sodium