ANNUAL GROUNDWATER MONITORING REPORT FOR 2020

MITIGATION ORDER ON CONSENT DOCKET NO. P-121-07
COCHISE COUNTY, ARIZONA



Prepared for:

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March 15, 2021

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1. INTRODUCTION

This annual report provides the results of groundwater monitoring activities conducted in calendar year 2020 for the Mitigation Plan (Clear Creek Associates, 2015a) submitted to Arizona Department of Environmental Quality (ADEQ) in March 2015. The Mitigation Plan was submitted pursuant to the Mitigation Order on Consent Docket No. P-121-07 (ADEQ, 2007) between ADEQ and Freeport Minerals Corporation Copper Queen Branch (CQB). ADEQ provided a conditional approval of the annual groundwater monitoring and groundwater monitoring report provisions of the Mitigation Plan (ADEQ, 2015).

1.1 Mitigation Plan

The Mitigation Plan describes the process being followed as the mitigation action[1] for a groundwater plume of sulfate in the vicinity of the Concentrator Tailing Storage Area (CTSA) near Naco, south of Bisbee, Arizona (Figure 1). The mitigation action addresses the potential for existing drinking water supplies to be affected[2] by sulfate. Drinking water supplies in the vicinity of the plume do not exceed the sulfate action level of 250 milligrams per liter (mg/L) at this time because CQB mitigated previously affected supplies (CQB, 2013) under a separate plan (Clear Creek Associates, 2012) approved by ADEQ (ADEQ, 2012).

The mitigation action being implemented by CQB is Alternative 1C, which was identified as the recommended alternative by a Feasibility Study (Clear Creek Associates, 2014) submitted to and approved by ADEQ (ADEQ, 2014). The mitigation action contains the following components:

- a water supply study to identify a potential alternate groundwater source for public water supply mitigation, if needed,
- expanded groundwater monitoring to track plume migration in the vicinity of public drinking water supplies in the Naco area and to document sulfate concentrations at the leading edge of the plume for the purposes of establishing sentinel wells with action levels that, if exceeded, would trigger a contingent mitigation action at a public supply, if needed,

[1] The term mitigation action encompasses all actions implemented under the Mitigation Plan. If a contingent mitigation measure is implemented or the implemented measures are changed due to adaptive management, then the term mitigation action encompasses the contingency or change.

[2] The terms "affect" and "affected", with reference to a drinking water supply, are defined for the purpose of the Mitigation Plan as indicating a water supply with an average sulfate concentration exceeding 250 milligrams per liter due to sulfate originating from the Concentrator Tailing Storage Area.

- long term plume monitoring to monitor sulfate at public and private drinking water supplies, and to describe the groundwater flow system and large scale geometry of the plume over time, and

- annual review of Arizona Department of Water Resources (ADWR) well registry records to identify new drinking water supply wells within a mile of the plume.

The water supply study was completed and reported to ADEQ in 2016 (Clear Creek Associates, 2016). The expanded groundwater monitoring, long term plume monitoring, and review of ADWR well registry records are ongoing programs.

1.2 Scope of Annual Groundwater Monitoring Report

The Mitigation Plan describes the scope of the annual groundwater monitoring report as follows:

> *"Groundwater monitoring reports will provide the water quality and water level data collected under the expanded groundwater monitoring ... and long term plume monitoring ... programs. The results of well drilling, installation, testing, and monitoring for expanded groundwater monitoring will be incorporated into the groundwater monitoring report as the wells are installed and data become available. The annual ADWR well records review ... will also be provided in the groundwater monitoring report. The reporting period will be a calendar year (i.e., January 1 through December 31). The groundwater monitoring report will be submitted by March 31 of the year following the reporting period."*

The primary objective of the annual groundwater monitoring report is to provide the water quality and water level data collected in 2020 for the long term plume monitoring and expanded groundwater monitoring programs. As described by the Mitigation Plan, the annual groundwater monitoring reports transmit data to ADEQ with little interpretation. Analysis and evaluation of the monitoring data are provided in mitigation performance review reports submitted to ADEQ under the Mitigation Plan (e.g. Clear Creek Associates, 2019a).

1.3 Sources of Groundwater Monitoring Data in 2020

1.3.1 Long Term Plume Monitoring

The long term plume monitoring program monitors the sulfate concentration at public and private drinking water supplies, and monitors water levels and sulfate levels at a site-wide array of monitoring wells. The objectives of long term plume monitoring are:

- determination of the sulfate concentration in drinking water supplies within one-mile of the outer edge of the sulfate plume (i.e., the 250 mg/L sulfate concentration contour),

- identification of the plume margin for ongoing delineation of the plume extent and assessment of plume migration (plume edge monitoring),

- documentation of the sulfate concentrations in the plume and areas distal to the plume to monitor long term concentration trends (regional monitoring), and

- measurement of water levels in the vicinity of the plume to document potentiometric conditions.

Groundwater sampling and water level measurement for long term plume monitoring were conducted by CQB and Clear Creek Associates personnel. Table 1 provides the groundwater monitoring schedule for the monitoring program in 2020. Table 2 summarizes the status of sampling in 2020. Figure 2 is a geologic map (Hayes and Landis, 1964) showing the monitoring area and identifying wells where the data reported herein have been collected. The well locations are identified by name on Figures 3 and 4.

The groundwater sampling and analysis methods for groundwater monitoring under the Mitigation Order are described in the Quality Assurance Project Plan contained in Appendix F of the Work Plan (Hydro Geo Chem, Inc., 2008). Dissolved sulfate is the only constituent monitored. Appendices A and B contain field data forms and laboratory reports, respectively, for samples collected in 2020.

1.3.2 Expanded Groundwater Monitoring Program

The expanded groundwater monitoring program monitors the position of the plume in the immediate vicinity of the existing Arizona Water Company and Naco Water Company public drinking water supplies near Naco. The results of this monitoring will be used to identify sentinel well locations near the public supplies and sentinel well sulfate action levels that would, if exceeded, initiate a contingent mitigation. Well installation and testing for the expanded groundwater monitoring program were completed and reported to ADEQ in 2015 (Clear Creek Associates, 2015b).

Basin fill wells installed for the expanded groundwater monitoring program are BMO-2014-1BL, BMO-2014-1BU, BMO-2014-2BL, BMO-2014-2BU, BMO-2014-3BL, BMO-2014-3BU, BMO-2014-4B, BMO-2014-4BL, BMO-2015-1B, BMO-2015-1BL, BMO-2015-2B, and BMO-2015-2BL (Figure 4). These wells are sampled semi-annually. The results of sulfate and

water level monitoring at the expanded groundwater monitoring program wells are included in this report.

1.4 ADWR Well Records Review

The ADWR well records review is conducted annually to identify new well registry records for wells within one mile of the edge of the plume. If a new drinking water supply well is identified within a mile of the plume, CQB offers to sample the well and adds it to the long term plume monitoring schedule, if acceptable to the well owner. The review of ADWR well registry records is reported in the annual groundwater monitoring report to maintain a current list of drinking water supply wells in the vicinity of the plume for monitoring under the Mitigation Plan.

2. GROUNDWATER MONITORING RESULTS

2.1 Sulfate Data

Sulfate analytical results for 2020 are tabulated in Table 3, along with the results of previous monitoring under the Mitigation Order. Historical sulfate concentration data collected prior to the Mitigation Order are summarized and evaluated in the Aquifer Characterization Report (Clear Creek Associates, 2010).

Water quality samples were collected from wells site-wide in the first and third quarters of 2020 (Table 1). Figures 5 and 6 are sulfate concentration contour maps for the first and third quarters of 2020. Figures 7 and 8 are sulfate concentration maps of the west edge of the plume in the first and third quarters of 2020. The sulfate concentration contouring on Figures 5 through 8 is based on the highest sulfate concentration measured at co-located wells and the most recent sample result at wells with multiple measurements during a quarter. The extent of the sulfate plume and the contours drawn on these figures are based on consideration of both historical and 2020 sulfate concentration data.

Figure 9 shows sulfate concentrations through time at public drinking water supply wells. The sulfate concentrations at the AWC wells were all less than 78 mg/L in 2020, and less than the 150 mg/L temporary sulfate action level set in the Mitigation Plan for the AWC wellfield. Wells NWC-02 and NWC-06 had sulfate concentrations less than 9 mg/L in 2020. Sulfate concentrations at NWC-04 near Bisbee Junction, which is believed to be at the receding edge of the plume, ranged between 182 and 199 mg/L in 2020.

Figure 10 is a graph of sulfate concentrations over time in monitoring wells installed for the expanded groundwater monitoring program. Sulfate concentrations measured in the fourth quarter 2014 are not shown on Figure 10 because the data are anomalous compared to the next eight quarters of sampling, possibly due to incomplete well development prior to sampling. Sulfate concentrations in the expanded groundwater monitoring wells were relatively steady between 2015 and the third quarter 2020 in that concentrations at each well appear to vary within a range specific to the well and there are no abrupt increases in the trends of concentration. The lack of an abrupt increase in sulfate indicates that there has been no discernable migration of the plume at the expanded groundwater monitoring program wells.

2.2 Water Elevation Data

Groundwater level data collected in 2020 are listed in Table 4, along with previous data collected for the Mitigation Order. Groundwater elevations were calculated using depth to water measurements made under static (non-pumping) conditions whenever possible.

Site-wide water level measurements are made in the first and third quarters of the year (Table 1). Figures 11 and 12 are site-wide groundwater elevation contour maps for the first and third quarters of 2020. Figures 13 and 14 are groundwater elevation contour maps for basin fill at the west edge of the plume in the first and third quarters of 2020. In Figures 11 through 14, the most recent depth to water measurement is used for contouring at wells with multiple measurements during a quarter.

Groundwater elevations over time for BMO monitor wells with screened intervals in basin fill are shown by Figure 15 for selected plume edge and regional monitoring wells (see Table 1 for well use), and by Figure 16 for expanded groundwater monitoring program wells. Groundwater elevations in plume edge and regional BMO monitor wells in basin fill decreased from 2008 through 2013, were relatively steady from 2013 to 2016, and declined from 2016 through 2020. Water elevations in expanded groundwater monitoring program wells show similar patterns of increase and decrease over time as do the plume edge and regional BMO monitor wells including, an annual pattern of low summer and high winter water elevations.

Figure 17 shows hydrographs for BMO monitor wells in bedrock. Groundwater elevations in BMO monitoring wells screened in bedrock show various patterns depending on the location and depth of the well. Water levels in bedrock wells beneath the basin fill tend to decline until 2013, stabilize from 2013 to 2016, and decline after 2016, similar to the basin fill wells. Water levels in shallow bedrock wells, such as BMO-2010-1M and BMO-2012-1M, near Bisbee Junction have increased in elevation over time. Section 4.2.3.2 of the Aquifer Characterization Report (Clear Creek Associates, 2010) has a detailed explanation of the different potentiometric systems in bedrock.

2.3 Quality Assurance/Quality Control

A data verification report is prepared for quality assurance and quality control purposes. The data verification report evaluates field and laboratory quality assurance data for acceptability in the context of data quality objectives for groundwater monitoring identified in the Quality Assurance Project Plan. The data verification report for 2020 is in Appendix C. Based on the

data verification review, the field measurements and analytical results collected in 2020 are of acceptable quality for use in monitoring activities conducted pursuant to the Mitigation Order.

2.4 Results of ADWR Well Records Review

Groundwater wells installed in Arizona are required to be registered with ADWR. Appendix D contains the ADWR well records review for 2020. The ADWR well records review was conducted using a version of the well records database current through January 28, 2021. The review identified registered wells within one mile of the sulfate plume in January 2021 that were not in the January 2020 well records review.

The ADWR Well Records Review identified two new well records within one mile of the sulfate plume. The records include a Well Driller Report and a Notice of Intent to drill a well. The Well Driller Report is a for a new well with registration number 55-232146. The well was drilled to replace the RUIZ well which has been sampled for the mitigation order since 2008. Clear Creek Associates identified the well during the third quarter 2020 sampling and collected a sample at that time. Mr. David Ruiz, the well owner, confirmed that the well usage is private drinking water supply. The new well is reported herein as RUIZ 146. The well was added to the semiannual sampling schedule per the Mitigation Plan (Clear Creek Associates, 2015a).

The notice of intent to drill a well is for a well on the same property as the COOPER well. The well registry number for the proposed well is 55-232988. When Clear Creek Associates contacted the owner of the COOPER well, Theresa Cooper, for third quarter 2020 sampling, Ms. Cooper indicated that the existing well was going dry and a new well was being planned. In December 2020, Ms. Cooper indicated the well may be installed in the first quarter 2021. If the well is drilled, Clear Creek Associates will confirm the well usage and sample the well pursuant to the Mitigation Plan.

3. REFERENCES

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TABLES

TABLE 1
Groundwater Monitoring Schedule in 2020

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
ANDERSON 396	613396	PNDW	RM	WLO	WLO	✓
ANDERSON 458	221458	PDWS	DWS (Mit)		✓	
ASLD 435	616435	STOCK	RM	WLO	WLO	
AWC-02	616586	PWS	DWS (>2000)	✓	✓	
AWC-03	616585	PWS	DWS (>2000)	✓	✓	
AWC-04	616584	PWS	DWS (>2000)	✓	✓	
AWC-05	590620	PWS	DWS (>2000)	✓	✓	
BANKS 986	647986	PDWS	DWS (>2000)		✓	
BANKS 987	647987	PNDW	RM	WLO	WLO	
BARTON 919	644919	PNDW	RM	WLO	WLO	
BIMA	577927	PNDW	RM			✓
BMO-2008-1G	909474	MW	PE (Lateral)	✓	✓	
BMO-2008-3B	909147	MW	PE (Lateral)	✓	✓	
BMO-2008-4B	910096	IRR	PE (Below)	WLO	✓	
BMO-2008-5B[1]	909653	PDWS	PE (Lateral)	✓	✓	
BMO-2008-5M	909552	MW	PE (Lateral)	✓	✓	
BMO-2008-6B	909146	MW	PE (Lateral)	✓	✓	
BMO-2008-6M	909019	MW	PE (Lateral)	✓	✓	
BMO-2008-7M	908794	MW	PE (Below)	WLO	✓	
BMO-2008-8B	910097	MW	RM	WLO	WLO	✓
BMO-2008-8M	909711	MW	PE (Below)	WLO	✓	
BMO-2008-9M	909255	MW	PE (Below)	WLO	✓	
BMO-2008-10GL	909435	MW	RM	WLO	WLO	✓
BMO-2008-10GU	909272	MW	RM	WLO	WLO	✓
BMO-2008-11G	909434	MW	PE (Lateral)	✓	✓	
BMO-2008-13B	909551	MW	RM	WLO	WLO	✓
BMO-2008-13M	909760	MW	RM	WLO	WLO	✓
BMO-2010-1M	219957	MW	PE (Below)	WLO	✓	
BMO-2010-2M	219958	MW	RM	WLO	WLO	✓
BMO-2010-3B	219970	MW	PE (Lateral)	✓	✓	
BMO-2010-3M	219969	MW	PE (Lateral)	✓	✓	
BMO-2012-1M	221388	MW	PE (Lateral)	✓	✓	
BMO-2014-1BL	917393	MW	PE (Lateral)	✓	✓	
BMO-2014-1BU	917394	MW	PE (Lateral)	✓	✓	
BMO-2014-2BL	917452	MW	PE (Lateral)	✓	✓	
BMO-2014-2BU	917453	MW	PE (Lateral)	✓	✓	
BMO-2014-3BL	917527	MW	PE (Lateral)	✓	✓	
BMO-2014-3BU	917494	MW	PE (Lateral)	✓	✓	
BMO-2014-4B	917620	MW	PE (Lateral)	✓	✓	
BMO-2014-4BL	917619	MW	PE (Lateral)	✓	✓	
BMO-2015-1B	917622	MW	PE (Lateral)	✓	✓	
BMO-2015-1BL	917621	MW	PE (Lateral)	✓	✓	
BMO-2015-2B	917827	MW	PE (Lateral)	✓	✓	
BMO-2015-2BL	917828	MW	PE (Lateral)	✓	✓	
BOOTH	914931	PDWS	DWS (<2000)	✓	✓	
BURKE	212268	PDWS	DWS (>2000)		✓	
CHAMBERS	629807	PDWS	DWS (>2000)		✓	
COB MW-1B	225906	MW	RM	WLO	WLO	✓
COB MW-2	903984	MW	PE (Lateral)	✓	✓	
COB MW-3	906823	MW	RM	WLO	✓	
COB WL	593116	MW	PE (Lateral)	✓	✓	

TABLE 1
Groundwater Monitoring Schedule in 2020

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
COOPER	623564	PDWS	DWS (<2000)	✓	✓	
COOPER C	637069	MW	RM		✓	
DODSON	644927	PDWS	DWS (<2000)	✓	✓	
DOUGLASS 791	592791	PNDW	RM		WLO	
DOUGLASS 792	592792	PNDW	RM		WLO	
EAST	599796	PDWS	DWS (>2000)		✓	
ECHAVE	219449	PDWS	DWS (>2000)	WLO	✓	
EPPELE 641	805641	PDWS	DWS (>2000)		✓	
FRANCO 383	221383	PDWS	DWS (Mit)		✓	
FULTZ	212447	PDWS	RM		✓	
GARNER 557	558557	PNDW	RM	WLO	WLO	
GARNER 635	587635	PDWS	DWS (Mit)		✓	
GOAR RANCH	610695	PNDW	RM	WLO	WLO	
HOBAN	805290	MW	RM	WLO	✓	
HOWARD NR	NR	PNDW	RM	WLO	WLO	✓
HOWARD 312	221312	PDWS	DWS (Mit)		✓	
KEEFER	209744	PDWS	DWS (<2000)	✓	✓	
LADD 251	520251	PNDW	RM	WLO	WLO	
LADD 538	505538	PNDW	RM	WLO	WLO	
LADD 635	224635	STOCK	RM	WLO	WLO	
LADD 837	519837	PNDW	RM	WLO	WLO	
LADD 977	642977	STOCK	RM	WLO	WLO	
MARCELL	NR	PNDW	RM			✓
MCCONNELL 265	539265	PNDW	RM	WLO	WLO	✓
MCCONNELL 459	221459	PDWS	DWS (Mit)		✓	
METZLER	35-71891	PNDW	RM	WLO	WLO	
MOORE	538847	PDWS	DWS (>2000)		✓	
NESS	509127	PDWS	DWS (>2000)		✓	
NOTEMAN	212483	PNDW	RM			✓
NSD-02	527587	MW	RM	WLO	WLO	
NSD-03	527586	MW	RM	WLO	WLO	
NWC-02	562944	PWS	DWS (>2000)	✓	✓	
NWC-03 CAP	627684	PNDW	RM	WLO	WLO	
NWC-04	551849	PWS	DWS (<2000)	Quarterly		
NWC-06	575700	PWS	DWS (>2000)	✓	✓	
OLMOS	224745	PDWS	DWS	WLO	✓	
OSBORN	643436	PDWS	DWS (>2000)		✓	
PALMER	578819	PDWS	DWS (>2000)		✓	
PANAGAKOS	35-76413	PDWS	PE (Lateral)	✓	✓	
PARRA	576415	PNDW	RM			✓
PIONKE 395	613395	PNDW	RM	WLO	WLO	✓
PIONKE 517	221517	PDWS	DWS (Mit)		✓	
POOL	509518	PDWS	DWS (>2000)		✓	
POWER 639	222639	PDWS	DWS (<2000)	✓	✓	
RAMIREZ	216425	PDWS	DWS (>2000)	WLO	✓	
RAY	803772	PDWS	DWS (>2000)		✓	
ROGERS 596	573596	PDWS	DWS (<2000)	✓	✓	
ROGERS 803	641803	PNDW	RM	✓	✓	
ROGERS E	216018	PDWS	DWS (<2000)	✓	✓	
RUIZ	531770	PNDW	RM	✓	✓	
RUIZ 146	231146	PDWS	DWS (<2000)	✓	✓	

TABLE 1
Groundwater Monitoring Schedule in 2020

Well Name	ADWR 55 Registry Number	Well Use	Monitoring Purpose	Semiannual Sampling First Quarter	Annual Sampling Third Quarter	Biennial Sampling Third Quarter of Odd Numbered Years
SCHWARTZ	210865	PDWS	DWS (<2000)	✓	✓	
STEPHENS	808560	PNDW	RM	WLO	WLO	
SWAN	810034	PDWS	DWS (>2000)		✓	
TERRY	NR	PDWS	DWS (>2000)		✓	
THOMPSON 151	612151	PNDW	RM	WLO	WLO	
THOMPSON 341	218341	PDWS	DWS (>2000)		✓	
TM-02A	522574	MW	RM	WLO	WLO	✓
TM-06 MILLER	522695	MW	RM	WLO	WLO	✓
TM-07	522576	MW	PE (Lateral)	✓	✓	
TM-10 USBP	522696	MW	RM	✓	✓	
TM-15 MILLER	522699	MW	RM		✓	
TM-16	522578	MW	RM	WLO	WLO	✓
TM-19A	522580	MW	RM		✓	
TM-42	562554	MW	RM	WLO	WLO	✓
TVI 236	802236	IRR	PE (Lateral)	✓	✓	
TVI 713	567713	PNDW	RM	WLO	WLO	
TVI 875	568875	IRR	RM		✓	
WEED	544535	PDWS	DWS (<2000)	✓	✓	
WEISKOPF 802	641802	PNDW	RM	WLO	WLO	✓
WEISKOPF 897	220897	PDWS	DWS (Mit)		✓	
ZANDER	205126	PDWS	DWS	WLO	✓	

Notes:

1	In September 2018 BMO-2008-5B was verified as not being used for drinking water supply based on discussion with the property owner.
35-71891	ADWR 35 Database
ADWR	Arizona Department of Water Resources
NR	No Record

Well Use

PWS	Public Water Supply
PDWS	Private Drinking Water Supply
PNDW	Private Non-Drinking Water
IRR	Irrigation
MW	Monitoring Well
STOCK	Stock-Wildlife Watering

Monitoring Purpose

DWS (<2000)	Drinking Water Supply, Greater than 2000 feet from the plume
DWS (>2000)	Drinking Water Supply, Less than 2000 feet from the plume
DWS (Mit)	Drinking Water Supply, Mitigation well installed below plume
PE (Lateral)	Plume Edge Monitoring, Lateral to plume
PE (Below)	Plume Edge Monitoring, Below plume
RM	Regional Monitoring
WLO	Water Level Only

TABLE 2
Summary of Groundwater Monitoring in 2020

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2020			Third Quarter Schedule	3Q 2020		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
ANDERSON 396	613396	WLO	Y	N	Well identified for water level measurement only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
ANDERSON 458	221458		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2020.
ASLD 435	616435	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
AWC-02	616586	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
AWC-03	616585	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
AWC-04	616584	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
AWC-05	590620	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BANKS 986	647986		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in August 2020. Water level not measured due to obstruction in well.
BANKS 987	647987	WLO	Y	N	Well identified for water level measurement only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
BARTON 919	644919	WLO	Y	N	Well identified for water level measurement only. Water level measured in January 2020.	WLO	N	N	Well identified for water level measurement only. Water level not measured due to obstruction in well.
BIMA	577927		N	N	Well is not scheduled for first quarter monitoring.		N	N	Well is not scheduled for third quarter monitoring.
BMO-2008-1G	909474	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2008-3B	909147	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2008-4B	910096	WLO	Y	N	Water level measured in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2008-5B	909653	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2008-5M	909552	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2008-6B	909146	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in July 2020.
BMO-2008-6M	909019	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in July 2020.
BMO-2008-7M	908794	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	✓	Y	Y	Water quality sample collected in July 2020.

TABLE 2
Summary of Groundwater Monitoring in 2020

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2020			Third Quarter Schedule	3Q 2020		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
BMO-2008-8B	910097	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
BMO-2008-8M	909711	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	✓	Y	Y	Water quality sample collected in July 2020.
BMO-2008-9M	909255	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	✓	Y	Y	Water quality sample collected in July 2020.
BMO-2008-10GL	909435	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
BMO-2008-10GU	909272	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
BMO-2008-11G	909434	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2008-13B	909551	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
BMO-2008-13M	909760	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
BMO-2010-1M	219957	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	✓	Y	Y	Water quality sample collected in July 2020.
BMO-2010-2M	219958	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
BMO-2010-3B	219970	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2010-3M	219969	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2012-1M	221388	✓	Y	Y	Water quality sample collected in February 2020.	✓	Y	Y	Water quality sample collected in July 2020.
BMO-2014-1BL	917394	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in August 2020.
BMO-2014-1BU	917393	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2014-2BL	917452	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2014-2BU	917453	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2014-3BL	917527	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2014-3BU	917494	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.

TABLE 2
Summary of Groundwater Monitoring in 2020

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2020			Third Quarter Schedule	3Q 2020		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
BMO-2014-4B	917620	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2014-4BL	917619	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2015-1B	917622	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2015-1BL	917621	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2015-2B	917827	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BMO-2015-2BL	917828	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
BOOTH	914931	✓	N	N	Well owner has declined participation in well sampling program.	✓	N	N	Well owner has declined participation in well sampling program.
BURKE	212268		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in August 2020. Water level not measured per owner request.
CHAMBERS	629807		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	Well is not inoperable. Water level not measured due to inaccessible wellhead.
COB MW-1B	225906	WLO	N	N	Well identified for water level measurements only. No water level collected per well owner request.	WLO	N	N	Well identified for water level measurements only. No water level collected per well owner request.
COB MW-2	903984	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
COB MW-3	906823	WLO	Y	N	Well identified for water level measurement only. Water level measured in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
COB WL	593116	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
COOPER	623564	✓	N	Y	Water quality sample collected in January 2020. Water level not measured due to no port in wellhead.	✓	N	N	No property access.
COOPER C	637069		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
DODSON	644927	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
DOUGLASS 791	592791		N	N	Well is not scheduled for first quarter monitoring.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
DOUGLASS 792	592792		N	N	Well is not scheduled for first quarter monitoring.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
EAST	599796		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.

TABLE 2
Summary of Groundwater Monitoring in 2020

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2020			Third Quarter Schedule	3Q 2020		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
ECHAVE	219449	WLO	Y	N	Water level measured in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
EPPELE 641	805641		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	No property access.
FRANCO 383	221383		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
FULTZ	212447		N	N	Well owner has declined participation in well sampling program.	✓	N	N	Well owner has declined participation in well sampling program.
GARNER 557	558557	WLO	N	N	Well identified for water level measurements only. No water level collected per well owner request.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
GARNER 635	587635		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
GOAR RANCH	610695	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
HOBAN	805290	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	✓	Y	Y	Water quality sample collected in September 2020.
HOWARD NR	NR	WLO	Y	N	Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
HOWARD 312	221312		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2020.
KEEFER	209744	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in July 2020.
LADD 251	520251	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
LADD 538	503538	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
LADD 635	224635	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
LADD 837	519837	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
LADD 977	642977	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
MARCELL	NR		N	N	Well is not scheduled for first quarter monitoring.		N	N	Well is not scheduled for third quarter monitoring.
MCCONNELL 265	539265	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
MCCONNELL 459	221459		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.

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Summary of Groundwater Monitoring in 2020

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2020			Third Quarter Schedule	3Q 2020		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
METZLER	35-71891	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
MOORE	538847		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2020.
NESS	509127		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
NOTEMAN	212483		N	N	Well is not scheduled for first quarter monitoring.		N	N	Well is not scheduled for third quarter monitoring.
NSD-02	527587	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
NSD-03	527586	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
NWC-02	562944	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in July 2020.
NWC-03 CAP	627684	WLO	N	N	Well is dry.	WLO	N	N	Well is dry.
NWC-04	551849	✓	N	Y	Water quality sample collected in January 2020. Water level not measured due to no port in wellhead.	✓	N	Y	Water quality sample collected in July 2020. Water level not measured due to no port/no access to wellhead.
NWC-06	575700	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in July 2020.
OLMOS	224745	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
OSBORN	643436		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	Well is inoperable. Water level not measured due to inaccessible wellhead.
PALMER	578819		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in August 2020. Water level not measured due to inaccessible wellhead.
PANAGAKOS	35-76413	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
PARRA	576415		N	N	Well is not scheduled for first quarter monitoring.		N	N	Well is not scheduled for third quarter monitoring.
PIONKE 395	613395	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
PIONKE 517	221517		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
POOL	509518		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
POWER 639	222639	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.

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Summary of Groundwater Monitoring in 2020

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2020			Third Quarter Schedule	3Q 2020		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
RAMIREZ	216425	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
RAY	803772		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
ROGERS 596	573596	✓	Y	Y	Water quality sample collected in January 2020.	✓	N	Y	Water quality sample collected in August 2020. Water level not measured due to inaccessible wellhead.
ROGERS 803	641803	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in January 2020.	✓	Y	N	Water quality sample not collected due to inoperable pump. Water level measured in August 2020.
ROGERS E	216018	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
RUIZ	531770	✓	N	Y	Water quality sample collected in January 2020. Unable to measure water level due to obstruction in well.	✓	N	N	Water quality sample not collected due to inoperable pump. Water level not measured due to inaccessible wellhead.
RUIZ 146	232146		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
SCHWARTZ	210865	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in July 2020.
STEPHENS	808560	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
SWAN	NR		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	No property access.
TERRY	229470		N	N	Well is not scheduled for first quarter monitoring.	✓	N	Y	Water quality sample collected in August 2020. Water level not measured due to inaccessible wellhead.
THOMPSON 151	612151	WLO	N	N	Water level not measured due to obstruction in well.	WLO	N	N	Well identified for water level measurements only. Water level not measured due to obstruction.
THOMPSON 341	218341		Y	N	Water level measured in January 2020 because THOMPSON 151 was obstructed.	✓	Y	Y	Water quality sample collected in August 2020.
TM-02A	522574	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
TM-06 MILLER	522695	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
TM-07	522576	✓	N	Y	Water quality sample collected in February 2020. Unable to measure water level due to obstruction in well.	✓	N	N	Unable to collect sample due to well being inoperable. Unable to measure water level due to obstruction in well.
TM-10 USBP	522696	✓	Y	Y	Water quality sample collected in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.
TM-15 MILLER	522699		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
TM-16	522578	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.

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Summary of Groundwater Monitoring in 2020

Well Name	ADWR 55 Registry Number	First Quarter Schedule	1Q 2020			Third Quarter Schedule	3Q 2020		
			Water Level Measured?	Water Sample Collected?	Status		Water Level Measured?	Water Sample Collected?	Status
TM-19A	522580		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in August 2020.
TM-42	562554	WLO	Y	N	Well identified for water level measurements only. Water level measured in February 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
TVI 236	802236	✓	Y	N	Unable to sample due to inoperable pump. Water level measured in January 2020.	✓	Y	N	Water sample not collected due to inoperable pump. Water level measured in August 2020.
TVI 713	567713	WLO	Y	N	Well identified for water level measurements only. Water level measured in March 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in August 2020.
TVI 875	568875		N	N	Well is not scheduled for first quarter monitoring.	✓	N	N	Water quality sample not collected due to inoperable pump. Water level not measured due to inaccessible wellhead.
WEED	544535	✓	N	Y	Water quality sample collected in January 2020. Water level not measured due to no port in wellhead.	✓	N	Y	Water quality sample collected in July 2020. Water level not measured due to no port in wellhead.
WEISKOPF 802	641802	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	WLO	Y	N	Well identified for water level measurements only. Water level measured in July 2020.
WEISKOPF 897	220897		N	N	Well is not scheduled for first quarter monitoring.	✓	Y	Y	Water quality sample collected in July 2020.
ZANDER	205126	WLO	Y	N	Well identified for water level measurements only. Water level measured in January 2020.	✓	Y	Y	Water quality sample collected in August 2020.

Notes:
35-71891 = ADWR 35
ADWR = Arizona Department of Water Resources
bls = below land surface
N = no
ND = no data
NR = no record
Q = quarter
Y = Yes
WLO = water level only

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
ANDERSON 396	613396	3/20/08	7.25	21.1	1176	431
		5/5/08	7.03	21.8	1231	452
		7/14/08	7.11	21.6	1260	472
		10/15/08	7.10	21.3	1252	475
		1/27/09	7.27	21.0	965	488
		4/14/09	7.12	21.8	1229	534
		7/14/09	7.03	22.2	1372	550
		10/12/09	6.98	21.5	1375	510
		1/27/10	7.93	20.1	1449	523
		4/21/10	7.40	20.7	1439	627
		7/19/10	6.93	24.1	1420	648
		10/19/10	7.03	20.6	1229	416
		1/17/11	7.02	20.6	1334	562
		4/11/11	6.92	15.1	1485	609
		7/14/11	7.23	24.4	1451	678
		10/11/11	6.65	21.2	1230	543
		2/1/12	7.28	11.8	1360	551
		4/25/12	7.10	23.9	1380	657
		7/12/12	6.89	24.9	1520	667
		10/10/12	7.40	24.0	1414	574
		4/7/14	7.06	17.4	1057	175
		7/11/14	7.35	21.4	1033	272
		10/6/14	7.13	27.5	974	99.0
		10/6/14 DUP	7.13	27.5	974	102.0
ANDERSON 458	221458	9/9/12	8.34	25.9	406.3	31
		10/10/12	8.13	23.8	412.3	30.3
		1/17/13	8.06	23.7	416.0	30.9
		4/15/13	8.19	23.5	402.7	32.3
		7/18/13	8.18	24.3	401.9	23
		10/16/13	8.10	23.8	400.1	25.2
		1/9/14	8.15	22.9	399.3	26.2
		1/9/14 DUP	8.15	22.9	399.3	26.2
		4/7/14	8.16	24.0	401.6	27.5
		7/11/14	8.13	24.5	396.7	25.3
		10/6/14	8.06	25.6	384.0	26.0
		7/22/15	8.17	25.2	397.3	25.3
		7/19/16	8.14	23.8	395.2	24.2
		7/18/17	8.01	23.9	395.5	26.8
		7/18/18	7.88	24.2	397.1	23.4
		7/11/19	7.85	24.1	396.2	22.4
		7/22/20	8.01	24.6	394.6	24.0
AWC-02	616586	1/7/08	ND	ND	ND	14
		3/3/08	ND	ND	ND	16
		5/5/08	ND	ND	ND	13.3
		8/12/08	7.01	22.3	630	14.3
		10/23/08	7.31	23.1	464	15.9
		3/11/09	7.19	21.8	420	15.5
		4/22/09	7.17	22.6	430	14.7
		7/22/09	7.24	22.7	444	14.2
		10/21/09	7.19	21.3	468	16.8
		2/3/10	7.44	19.7	449	18.6
		4/23/10	7.56	19.7	526	18.3
		7/20/10	7.27	23.9	450	18.2
		11/4/10	7.72	21.3	465.9	18.8
		1/19/11	7.84	19.0	500	18.4
		4/7/11	7.27	20.3	488.5	17.3
		7/13/11	5.93	23.9	431.5	12.9
		10/13/11	6.72	25.1	464.6	17.4
		10/13/11 DUP	6.72	25.1	464.6	17.4
		2/2/12	7.20	20.8	479.5	19.4
		4/24/12	7.23	23.0	430	15.5
		7/5/12	7.25	22.1	437.1	10.1
		10/18/12	7.48	21.6	473.6	13.0
		2/5/13	7.54	19.3	448.9	18.0
		4/11/13	7.53	22.1	471.3	17.2
		7/25/13	7.35	22.1	460.5	14.7
		10/9/13	7.53	21.2	476.4	15.5
		1/7/14	7.45	20.3	503.7	18.8
		1/7/14 DUP	7.45	20.3	503.7	18.9
		5/14/14	7.34	21.0	508.4	19.2
		7/16/14	7.54	21.8	499.5	19.2
		10/15/14	7.26	23.2	520	18.9
		1/29/15	7.44	21.4	511	20.5
		7/21/15	7.62	22.5	506.7	19.9
		1/13/16	7.63	20.6	411.2	8.27
		7/19/16	7.40	22.1	418.7	7.80
		1/19/17	7.33	20.5	428.7	9.87
		9/6/17	7.4	20.7	423.3	7.65
		1/17/18	7.26	20.5	442.6	13.0
		7/25/18	7.33	20.5	489.9	16.7
		7/25/18 DUP	7.33	20.5	489.9	16.9
		1/13/20	7.39	20.6	516.0	20.5
		8/13/20	7.29	21.0	519.3	16.3

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-03	616585	1/7/08	ND	ND	ND	41
		3/3/08	ND	ND	ND	38
		5/5/08	ND	ND	ND	37.3
		8/12/08	7.28	22.4	469	38.8
		10/23/08	7.48	21.0	462	41.8
		3/11/09	7.25	21.2	445	64.2
		4/22/09	7.30	21.4	452	42.4
		7/22/09	7.39	22.6	456	41.8
		10/21/09	7.48	21.3	540	50.5
		2/3/10	7.44	19.7	449	42.0
		4/23/10	7.57	19.7	468	44.4
		7/20/10	7.29	23.8	460	46.7
		11/4/10	7.80	20.8	452.3	46.3
		1/19/11	7.07	19.6	560	49
		4/7/11	7.28	19.9	469.8	46.8
		7/13/11	6.33	23.1	458.8	47.6
		7/13/11 DUP	6.33	23.1	458.8	46.2
		10/13/11	6.69	23.8	463.6	48.8
		2/2/12	7.39	20.7	504.8	47.7
		4/24/12	7.28	22.1	450	51.8
		7/5/12	7.32	21.7	474.3	50.7
		10/18/12	7.44	21.3	477.4	51.3
		2/5/13	7.73	19.2	481.2	55
		4/11/13	7.51	22.2	486.4	66.1
		7/16/13	7.61	21.5	489.6	63.6
		10/9/13	7.57	20.5	485.8	49.4
		10/9/13 DUP	7.57	20.5	485.8	51
		1/7/14	7.62	20.4	486.3	56.6
		5/14/14	7.64	20.5	493.0	61.1
		7/16/14	7.68	21.4	506.9	69.1
		10/15/14	7.38	22.2	506.0	63.4
		1/29/15	7.59	21.2	495	77.1
		7/21/15	7.63	21.6	494	55.5
		1/13/16	7.62	19.9	474.1	43.5
		7/19/16	7.47	20.9	493.2	54.8
		1/19/17	7.41	20.0	480.4	57.1
		9/6/17	7.41	20.3	525.5	75.1
		1/17/18	7.25	19.9	487.6	57.0
		7/25/18	7.36	20.3	504.5	76.3
		1/16/19	7.33	20.1	500.8	75.7
		7/23/19	7.29	20.0	506.7	68.6
		1/13/20	7.64	19.3	513.9	74.4
		8/3/20	7.38	20.8	512.7	77.2

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-04	616584	2/4/08	ND	ND	ND	18
		4/7/08	ND	ND	ND	18
		6/2/08	ND	ND	ND	14.3
		8/12/08	7.08	22.5	458	21.6
		10/23/08	6.91	22.2	616	24
		3/11/09	7.02	21.3	539	27.2
		4/22/09	6.93	22.1	560	26.1
		7/22/09	7.13	22.5	587	26.2
		10/21/09	7.00	21.2	607	25.7
		2/3/10	7.35	19.3	438	16.3
		4/23/10	7.14	19.2	625	27.4
		7/20/10	7.02	24.1	600	26.6
		11/4/10	7.41	20.3	593.2	24
		1/19/11	8.15	20.5	690	26.2
		4/7/11	7.00	20.4	637.2	25.8
		7/13/11	6.88	20.4	610.1	25.7
		10/13/11	6.38	24.0	619.7	27.6
		2/2/12	6.97	20.1	637.6	27.2
		4/24/12	7.10	22.1	570	25.2
		7/5/12	7.03	21.6	568.0	28.2
		7/5/12 DUP	7.03	21.6	568.0	28.1
		10/18/12	7.20	20.8	606.7	26.6
		2/5/13	7.29	19.7	616.8	26.9
		4/11/13	7.38	21.7	595.4	26.2
		7/16/13	7.30	21.0	585.7	27.0
		10/9/13	7.36	20.4	588.6	24.6
		1/7/14	7.36	19.7	651.4	23.7
		5/14/14	7.38	19.8	674.2	22.7
		7/16/14	7.32	20.7	632.2	24.1
		7/16/14 DUP	7.32	20.7	632.2	22.9
		10/15/14	7.01	21.9	688	21.4
		1/29/15	7.20	21.0	687	22.9
		7/21/15	7.38	21.2	619.6	23.2
		1/13/16	7.42	19.2	556.6	27.0
		7/19/16	7.24	20.6	590.7	31.4
		1/19/17	7.06	19.6	658.6	22.9
		1/19/17 DUP	7.06	19.6	658.6	23.1
		9/6/17	7.17	19.8	571.0	25.8
		1/17/18	7.13	19.6	532.6	38.6
		7/25/18	6.99	19.3	663.1	24.3
		1/16/19	6.99	19.4	706.8	20.7
		7/23/19	7.06	19.5	591.8	24.2
		1/13/20	7.38	19.5	715.2	22.5
		8/3/20	6.92	20.0	731.5	23.2

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
AWC-05	590620	2/4/08	ND	ND	ND	13
		4/7/08	ND	ND	ND	14
		6/2/08	ND	ND	ND	14.3
		8/12/08	6.74	23.3	425	14.9
		10/23/08	7.45	21.0	422	15.4
		3/11/09	7.31	22.1	398	16.5
		6/3/09	7.33	22.0	418	12.1
		7/22/09	7.49	24.4	423	14.1
		10/21/09	7.37	21.1	433	16.5
		2/3/10	7.35	19.3	438	16.3
		4/23/10	7.62	18.9	443	17.6
		7/20/10	7.62	24.2	440	19.1
		11/4/10	7.92	20.7	427.1	18.4
		1/19/11	7.64	20.3	420	17
		4/7/11	7.22	20.8	438.3	17.6
		7/13/11	6.52	22.9	419.8	17.9
		10/13/11	6.82	26.0	427.5	19
		2/2/12	7.35	21.4	427.9	19.5
		4/24/12	7.18	21.4	430	15.4
		7/5/12	7.24	22.6	432.1	19.1
		10/18/12	7.66	22.6	436.1	20.1
		2/5/13	7.57	20.2	437.7	20.1
		4/11/13	7.54	21.2	444.5	20.3
		7/16/13	7.56	21.3	454.5	18.0
		7/16/13 DUP	7.56	21.3	454.5	17.7
		10/9/13	7.58	21.3	455.3	15.4
		5/14/14	7.54	21.2	442.3	19.8
		7/16/14	7.60	22.6	470.9	20.3
		10/15/14	7.38	23	452	20.8
		1/29/15	7.64	19.6	443	18.0
		7/21/15	7.67	21.9	457.9	17.0
		1/13/16	7.69	19.9	444.4	14.4
		7/19/16	7.40	22.2	443.1	20.7
		1/19/17	7.45	21.4	436.7	21.9
		9/6/17	7.38	20.9	447.4	19.7
		9/6/17 DUP	7.38	20.9	447.4	20.5
		1/17/18	7.34	20.5	437.0	20.2
		7/25/18	7.35	20.4	456.9	17.9
		1/16/19	7.39	21.0	441.6	19.3
		1/13/20	7.81	18.8	448.2	20.2
		8/3/20	7.41	21.6	446.8	19.4
BANKS 986	647986	2/27/08	7.53	21.8	980	44
		5/12/08	7.40	22.1	1021	65.2
		7/21/08	7.43	22.9	1034	82.2
		10/13/08	7.28	21.7	980	53
		1/21/09	7.66	21.6	872	164
		4/8/09	7.56	22.7	933	47
		7/9/09	7.59	23.1	871	70.9
		10/7/09	7.50	22.2	838	67.7
		2/25/10	7.56	21.1	1020	50.5
		4/20/10	7.71	22.8	1013	53.9
		7/20/10	7.70	23.2	828.3	71.5
		10/20/10	7.60	22.4	948.7	73.4
		1/17/11	7.73	20.6	1038	53.5
		4/5/11	7.66	21.5	965.0	64.5
		7/11/11	7.72	25.4	890.0	68.8
		10/12/11	7.88	21.2	1551	172
		1/31/12	7.69	20.2	1017	64.3
		1/31/12 DUP	7.69	20.2	1017	64.9
		4/11/12	7.77	22.0	1025	64.0
		7/6/12	7.66	23.7	940	78.6
		7/6/12 DUP	7.66	23.7	940	77.9
		10/4/12	7.73	22.0	845.4	62.6
		1/18/13	7.82	21.9	832.4	70.5
		4/8/13	7.87	20.7	861.7	62.9
		7/9/13	8.04	22.9	769.1	67.9
		10/15/13	7.59	21.7	1158	79.6
		1/14/14	7.77	20.9	967.4	75.2
		4/8/14	7.47	21.4	1337	113
		7/8/14	7.58	22.3	1175	107
		7/8/14 DUP	7.58	22.3	1175	110
		10/21/14	7.37	22.7	1158	91.3
		7/24/15	7.67	22.6	1002	76.3
		7/12/16	7.59	22.2	1029	68.7
		7/26/17	7.45	20.9	1012	88.6
		7/30/18	7.40	21.0	987.6	66.6
		7/11/19	7.27	22.2	933.8	67.6
		8/13/20	7.34	21.8	931.5	66.1

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BF-01	539783	5/23/08	6.41	18.3	2698	1450
		8/5/08	6.11	22.4	3095	1330
		11/5/08	6.33	19.9	3027	1490
		2/20/09	6.42	19.2	1477	1330
		5/6/09	5.98	23.9	2632	1280
		8/17/09	6.21	29.7	2948	1250
		11/4/09	6.24	23.0	2846	1280
		3/1/10	6.34	21.1	2945	1260
		4/7/10	5.83	20.4	1853	1450
		7/6/10	5.93	22.6	1403	1310
		7/13/11	6.26	21.3	2960	1350
		2/1/12	6.18	19.8	2910	1480
		8/14/12	6.00	21.5	3000	1500
BIMA	577927	2/6/08	6.69	22.2	1335	210
		4/25/08[1]	6.37	23.1	1521	190
		5/13/08[1]	6.58	22.7	1489	195
		6/23/08[1]	6.30	23.3	1572	225
		6/23/08 DUP	6.30	23.3	1572	196
		7/29/08[1]	6.44	23.0	1647	204
		8/28/08[1]	M	23.0	1776	256
		9/23/08[1]	6.29	23.0	1741	296
		10/22/08	6.41	22.3	1801	285
		1/20/09	6.40	21.7	1233	190
		1/20/09 DUP	6.40	21.7	1233	200
		4/7/09	6.45	23.4	1436	212
		7/8/09	6.31	23.4	1483	189
		10/5/09	6.34	22.7	1525	233
		1/20/10	6.88	17.0	M	222
		4/19/10	6.70	21.9	1533	256
		7/12/10	6.70	24.0	1577	273
		10/18/10	6.47	24.3	1702	296
		1/19/11	6.65	21.2	1672	283
		4/4/11	6.61	24.0	1643	282
		8/25/11	6.27	25.9	1460	300
		10/10/11	6.5	24.1	1520	322
		2/3/12	6.48	18.5	1540	312
		4/23/12	6.57	23.9	1790	303
		7/10/12	6.06	23.7	1200	301
		11/29/12	6.51	20.6	1664	310
		3/13/13	7.29	19.8	1175	317
		4/10/13	6.64	13.9	1569	308
		7/8/13	6.62	28.0	1580	301
		10/11/13	6.57	21.8	1749	301
		1/10/14	6.63	10.7	1664	297
		4/10/14	6.62	15.8	1685	300
		7/8/14	6.56	21.6	1653	297
		10/23/14	6.25	23.9	1704	227
		7/23/15	6.87	26.2	1627	271
		7/15/16	6.90	28.7	1602	271
		7/27/17	6.84	25.4	1553	304
		7/11/19	6.75	28.2	1514	240
BLOMMER	633472	2/5/08	7.43	20.2	714	206
		4/21/08[1]	7.06	21.9	753	201
		5/15/08[1]	7.16	22.2	845	211
		6/23/08[1]	6.93	21.5	903	193
		7/29/08[1]	7.21	22.2	921	203
		8/27/08[1]	7.12	22.1	864	189
		9/23/08[1]	7.16	22.3	818	193
		10/22/08	7.17	21.3	873	200

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-1G	909474	8/27/08	7.09	24.2	808	107
		11/11/08	7.00	20.8	721	143
		2/25/09	7.01	22.0	860	109
		4/28/09	7.04	22.2	762	198
		8/4/09	7.23	22.8	950	104
		10/27/09	7.11	21.9	922	103
		2/17/10	7.36	20.5	899.3	98.4
		4/15/10	7.04	22.2	711	95.2
		7/7/10	6.91	21.5	640	88.1
		7/7/10 DUP	6.91	21.5	640	87.1
		2/10/11	6.80	21.0	916	105
		7/12/11	7.2	26.6	1015	121
		2/8/12	7.02	20.2	869	116
		8/14/12	6.97	21.9	959	120
		2/14/13	7.09	21.2	986	112
		8/14/13	6.96	21.6	1009	120
		2/13/14	6.76	21.1	1010	114
		7/22/14	6.87	22.0	1010	117
		2/4/15	7.35	22.1	942	116
		9/10/15	7.21	21.8	953	109
		3/3/16	7.16	22.1	950	108
		8/17/16	7.05	22.2	986	121
		3/1/17	6.99	22.1	923	110
		7/24/17	7.11	22.2	925	112
		2/14/18	7.08	20.9	924	112
		7/10/18	7.24	22.2	920	115
		2/5/19	7.15	21.4	920	99.5
		7/31/19	7.15	22.2	907	100
		2/5/20	7.19	21.7	914	105
		8/12/20	7.26	22.1	897	93.2
BMO-2008-3B	909147	7/18/08	7.35	23.9	615	106
		11/4/08	7.36	21.4	599	179
		11/4/08 DUP	7.36	21.4	599	177
		2/19/09	7.24	21.4	664	155
		5/11/09	7.23	22.1	631	149
		8/6/09	7.33	21.4	718	151
		8/6/09 DUP	7.33	21.4	718	156
		10/26/09	7.32	21.8	684	153
		3/3/10	7.38	21.4	695	164
		4/8/10	6.47	21.3	585	162
		7/1/10	6.92	21.4	541	157
		2/14/11	6.98	20.6	698	169
		7/12/11	7.04	21.4	672	148
		2/23/12	6.92	21.0	695	173
		7/10/12	7.02	21.5	651	150
		2/15/13	6.63	20.4	692	163
		8/27/13	7.1	21.1	725	170
		2/11/14	7.01	20.7	729	162
		7/21/14	6.98	21.0	706	163
		2/5/15	7.11	21.2	652	145
		9/14/15	7.29	21.7	638	133
		3/3/16	7.29	21.8	637	136
		8/18/16	7.18	21.4	637	139
		3/1/17	6.99	21.0	618	135
		7/26/17	7.17	21.5	648	147
		2/8/18	7.46	21.0	653	150
		7/10/18	7.35	21.9	663	154
		2/5/19	7.41	21.2	703	169
		2/5/19 DUP	7.41	21.2	703	173
		8/6/19	7.29	22.2	727	165
		2/6/20	7.57	21.0	655	150
		8/12/20	7.39	21.6	647	132

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-4B	910096	12/11/08	7.34	22.8	374	9.4
		2/18/09	7.17	23.2	370	13.4
		4/30/09	7.33	24.5	376	11.4
		4/30/09 DUP	7.33	24.5	376	11.8
		8/6/09	7.53	24.6	397	11.5
		10/27/09	7.53	23.7	379	11.2
		2/24/10	7.48	21.8	362	9.7
		4/16/10	7.70	23.4	330	9.73
		7/2/10	7.25	23.6	323	10.10
		2/15/11	7.65	22.2	362	8.90
		7/22/11	7.33	23.7	371	10.2
		2/23/12	7.21	22.3	354	10.5
		8/15/12	6.96	23.6	380	9.5
		1/15/13	7.63	22.7	370.2	10.3
		1/15/13 DUP	7.63	22.7	370.2	9.5
		4/15/13	7.75	23.0	368.2	11.2
		9/18/13	7.69	23.4	384.6	9.8
		1/9/14	7.81	22.2	371.4	11.1
		7/18/14	7.78	23.3	379.1	11.6
		9/30/17	7.43	22.6	392.5	9.88
		7/26/18	7.43	22.6	386.1	10.9
		7/22/19	7.53	22.8	377.1	11.2
		7/22/19 DUP	7.53	22.8	377.1	11.2
		8/11/20	7.50	23.5	372.9	10.7
BMO-2008-5B	909653	9/30/08	7.08	22.0	688	193
		2/18/09	7.03	21.5	691	192
		4/27/09	7.32	22.1	605	177
		8/4/09	7.35	22.3	724	174
		10/29/09	7.29	21.8	731	181
		10/29/09 DUP	7.29	21.8	731	185
		2/15/10	7.22	21.7	720	185
		4/15/10	7.21	23.0	571	194
		7/7/10	6.94	22.2	551	183
		10/5/10	6.85	22.3	722	201
		2/14/11	6.90	21.8	725	203
		5/12/11	7.06	21.5	722	195
		7/13/11	6.99	22.0	712	200
		12/7/11	6.95	19.9	730	213
		2/3/12	7.16	20.2	726	215
		4/18/12	6.96	21.7	712	192
		7/10/12	6.87	21.5	726	218
		10/16/12	6.69	21.4	712	207
		2/7/13	7.40	21.4	771.4	229
		2/12/13	6.49	20.7	752	227
		5/15/13	7.01	21.8	742	220
		8/20/13	7.00	21.7	792	226
		11/1/13	6.92	21.5	792	233
		2/11/14	6.88	21.5	804	230
		5/7/14	6.87	21.5	800	228
		8/19/14	6.99	21.6	795	221
		11/13/14	6.92	21.9	755	228
		2/3/15	7.05	21.8	755	227
		9/8/15	7.16	22.3	764	236
		3/14/16	7.06	21.5	774	237
		9/14/16	7.22	21.8	771	240
		3/1/17	7.07	21.5	756	243
		8/1/17	7.05	22	779	245
		2/8/18	7.28	21.4	798	267
		3/8/18	7.3	21.4	792	246
		3/8/18 DUP	7.3	21.4	792	246
		4/11/18	7.25	21.4	814	240
		5/29/18	7.31	22.1	811	262
		6/19/18	7.26	22.3	817	252
		7/25/18	7.02	23.0	794	250
		2/4/19	7.06	21.6	802	238
		8/7/19	7.09	22.3	814	239
		2/6/20	7.12	21.5	812	258
		8/11/20	7.07	23.0	785	240

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-5M	909552	10/2/08	7.13	23.6	551	107
		2/18/09	7.06	22.5	562	122
		4/27/09	7.50	22.9	501	111
		8/4/09	7.53	23.1	605	122
		10/29/09	7.35	22.4	610	123
		2/15/10	7.31	22.5	581	123
		4/16/10	7.28	22.6	509	125
		4/16/10 DUP	7.28	22.6	509	124
		7/7/10	7.02	23.5	482	123
		10/5/10	6.81	22.5	602	127
		2/14/11	6.95	22.2	591	124
		5/12/11	7.16	23.0	558	119
		7/12/11	7.22	22.7	590	126
		12/7/11	7.1	21.2	601	129
		2/3/12	6.99	21.5	589	130
		4/18/12	6.71	22.4	587	120
		7/10/12	6.82	22.4	592	135
		10/16/12	6.86	21.9	591	134
		2/12/13	6.65	21.6	610	139
		5/15/13	6.73	22.4	603	135
		8/20/13	7.18	22.5	640	138
		11/1/13	7.07	22.0	641	142
		2/11/14	6.84	22.1	646	138
		5/7/14	6.85	22.1	648	140
		8/19/14	6.97	22.1	645	143
		11/13/14	7.18	22.6	612	139
		2/3/15	7.26	22.5	612	143
		9/8/15	7.19	23.1	615	146
		3/14/16	7.26	22.5	618	142
		9/14/16	7.12	22.5	623	153
		3/1/17	6.97	22.4	621	157
		8/1/17	7.11	22.8	636	159
		2/8/18	7.26	22.4	646	168
		7/25/18	7.22	23.2	651	161
		2/4/19	7.40	22.1	654	155
		8/7/19	7.32	23.0	659	152
		2/6/20	7.32	22.2	662	169
		8/11/20	7.23	22.8	668	156
BMO-2008-6B	909146	7/16/08	7.36	24.1	475	53.3
		11/4/08	7.41	21.5	398	60.3
		2/19/09	7.23	21.1	444	54.3
		4/27/09	7.55	21.7	389	52.7
		8/4/09	7.48	23.4	470	48.5
		10/26/09	7.29	22.5	448	48.7
		2/15/10	7.53	21.2	391	33.5
		4/15/10	7.47	21.0	362	37.0
		7/1/10	7.24	22.2	361	40.1
		10/5/10	7.05	21.0	407	37.2
		2/14/11	7.27	21.8	397	40.2
		5/12/11	7.32	21.5	380	35.0
		7/12/11	7.27	21.1	390	37.8
		12/7/11	7.28	20.8	330	21.8
		2/3/12	7.28	20.1	346	23.0
		4/18/12	7.25	21.4	336	19.7
		7/10/12	6.86	21.2	328	21.9
		10/16/12	6.79	21.5	342	19.9
		2/12/13	6.87	20.7	339	16.2
		5/15/13	6.87	21.2	297	12.7
		8/20/13	7.36	21.5	310	10.6
		11/1/13	7.04	21.0	340	13.9
		2/11/14	7.38	21.6	290	20.1
		5/7/14	7.48	21.1	297	13.6
		8/19/14	7.08	21.6	298	13.4
		11/13/14	7.23	21.6	305	14.9
		2/3/15	7.24	20.6	272	12.1
		9/8/15	7.26	22.2	282	11.8
		3/14/16	7.47	21.9	267	12.4
		9/14/16	7.46	21.8	301	12.6
		3/1/17	7.37	21.4	271	12.1
		7/10/17	7.52	22.1	291	11.7
		2/8/18	7.26	20.9	284	13.3
		7/10/18	7.78	22.2	296	18.2
		2/4/19	7.38	21.6	280	10.7
		8/6/19	7.64	22.1	237	8.00
		2/3/20	7.25	21.3	264	8.60
		7/22/20	7.12	21.9	258	6.88

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-6M	909019	7/10/08	M	22.1	702	182
		11/4/08	7.33	21.8	621	199
		2/20/09	7.11	22.0	702	193
		4/28/09	7.34	22.4	595	119
		8/4/09	7.40	23.3	750	189
		10/26/09	7.18	22.4	727	187
		2/15/10	7.29	20.8	733	193
		4/15/10	7.36	20.2	619	208
		7/1/10	7.15	22.0	571	198
		10/5/10	6.87	21.3	720	202
		2/14/11	6.80	21.3	731	202
		5/12/11	7.12	21.9	709	189
		7/12/11	7.06	21.8	709	194
		12/7/11	6.94	21.3	710	200
		2/3/12	7.03	21.2	720	206
		4/18/12	7.01	21.4	701	188
		7/10/12	6.67	21.4	702	208
		10/16/12	6.89	21.8	708	207
		2/12/13	6.71	20.5	740	204
		5/8/13	7.01	21.9	726	212
		8/20/13	6.99	21.7	772	213
		11/1/13	6.83	21.5	773	223
		2/11/14	6.81	21.8	786	217
		5/7/14	6.77	21.3	788	220
		8/19/14	6.9	21.9	774	210
		11/13/14	7.14	22.0	740	218
		2/3/15	7.20	21.9	741	216
		9/8/15	7.09	23.0	750	222
		3/14/16	7.16	22.1	768	229
		9/14/16	7.06	22.2	760	229
		3/1/17	6.92	21.9	745	237
		7/10/17	7.04	22.6	742	218
		2/8/18	7.3	21.8	775	244
		7/10/18	7.26	22.1	761	234
		2/4/19	7.35	22.0	753	209
		8/6/19	7.18	22.4	755	199
		2/3/20	7.25	21.8	751	216
		7/22/20	7.22	22.1	752	206
BMO-2008-7M	908794	7/14/08	7.63	25.2	500	31.4
		11/6/08	7.53	22.6	380	34.5
		2/18/09	7.31	23.3	452	27.6
		5/11/09	7.43	24.4	426	26.0
		8/6/09	7.81	24.1	486	25.1
		10/27/09	7.53	23.0	470	26.1
		2/17/10	7.57	23.4	452	25.4
		2/17/10 DUP	7.57	23.4	452	25.0
		4/15/10	7.52	23.2	415	26.0
		7/6/10	7.28	23.5	391	22.8
		2/14/11	7.18	22.0	465	27.5
		2/14/11 DUP	7.18	22.0	465	26.4
		7/15/11	7.1	22.8	466	26.5
		1/30/12	7.16	22.0	454	26.4
		7/11/12	7.18	22.7	455	28.1
		2/15/13	7.23	21.8	471	25.8
		8/28/13	7.15	22.9	494	27.7
		8/28/13 DUP	7.15	22.9	494	27.8
		2/13/14	7.09	22.6	494	27.8
		7/22/14	7.13	23.2	488	27.3
		9/14/15	7.51	23.4	469	30.6
		8/18/16	7.43	23.3	457	30.0
		7/10/17	7.36	23.5	464	33.1
		7/23/18	7.36	23.5	464	34.7
		8/8/19	7.77	23.6	478	35.5
		8/8/19 DUP	7.77	23.6	478	35.1
		7/23/20	7.61	23.0	483	37.2

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-8B	910097	12/5/08	6.47	20.1	2480	1890
		2/19/09	6.19	21.0	2958	1570
		5/5/09	6.18	21.3	2888	1370
		8/10/09	6.42	21.5	2897	1250
		11/9/09	6.33	21.8	2889	1510
		11/9/09 DUP	6.33	21.8	2889	1520
		3/3/10	6.51	20.4	3016	1320
		4/16/10	6.06	21.4	1682	1470
		7/1/10	6.10	21.4	1594	1440
		7/15/11	6.21	21.2	2940	1380
		1/30/12	6.22	21.2	2880	1480
		1/30/12 DUP	6.22	21.2	2880	1480
		7/12/12	6.41	21.1	2860	1440
		2/13/13	6.25	20.7	2830	1330
		8/12/13	6.38	21.3	2780	1420
		7/24/14	6.26	21.2	2520	1380
		7/10/17	6.69	22.2	1540	1240
		8/8/19	6.50	22.2	2640	1130
BMO-2008-8M	909711	12/9/08	7.16	23.4	852	197
		2/19/09	7.27	23.5	758	147
		2/19/09 DUP	7.27	23.5	758	149
		5/5/09	7.19	25.1	680	122
		8/10/09	7.49	24.8	673	107
		11/5/09	7.30	25.4	675	104
		3/3/10	7.70	24.1	641	99.5
		4/16/10	7.29	24.5	541	97.0
		7/1/10	6.99	25.0	502	94.7
		1/24/11	7.05	23.4	595	98.2
		7/15/11	6.89	22.1	590	79.9
		1/30/12	7.36	23.9	565	77.6
		7/12/12	7.15	24.2	554	73.1
		7/12/12 DUP	7.15	24.2	554	73.2
		2/14/13	7.1	24.3	565	64.9
		8/12/13	7.19	24.6	585	65.0
		2/19/14	7.07	24.3	579	63.3
		2/19/14 DUP	7.07	24.3	579	63.4
		7/24/14	7.07	24.7	569	66.8
		9/15/15	7.35	25.0	541	67.0
		9/15/16	7.52	24.6	535	63.5
		9/15/16 DUP	7.52	24.6	535	63.9
		7/10/17	7.28	24.7	542	74.1
		7/23/18	7.48	24.8	536	76.9
		7/23/18 DUP	7.48	24.8	536	74.5
		8/8/19	7.63	25.2	542	66.8
		7/23/20	7.48	24.8	547	74.3
BMO-2008-9M	909255	8/8/08	7.72	25.7	415	47.3
		11/5/08	7.89	21.4	444	54.4
		2/26/09	7.71	24.5	482	28.8
		5/12/09	7.76	24.8	449	51.7
		8/17/09	7.76	25.6	534	53.4
		11/3/09	7.82	24.9	552	56.9
		3/4/10	8.07	22.4	520	58.6
		4/6/10	6.74	23.8	484	60.1
		7/1/10	7.40	24.6	425	61.0
		2/10/11	6.79	24.0	520	64.2
		7/15/11	7.56	24.3	516	67.0
		2/1/12	7.54	22.4	516	67.4
		7/12/12	7.68	24.2	513	68.9
		2/13/13	7.37	23.8	531	68.2
		8/12/13	7.47	24.2	553	71.1
		2/18/14	7.26	23.8	569	74.1
		7/24/14	7.36	24.4	571	74.2
		9/14/15	7.68	24.7	550	85.6
		9/15/16	7.64	24.4	571	86.7
		7/11/17	7.57	24.5	572	92.0
		7/26/18	7.66	24.4	584	97.2
		8/12/19	7.59	24.5	584	91.7
		7/20/20	7.68	24.7	602	97.0

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-10GL	909435	8/20/08	6.22	29.5	2924	1320
		11/5/08	6.47	25.3	2573	1290
		2/25/09	6.34	26.8	2646	1180
		5/12/09	6.35	26.2	2402	1120
		8/11/09	6.52	27.3	2661	1030
		11/2/09	6.52	26.7	2565	1100
		3/4/10	6.76	24.1	2937	1080
		4/8/10	6.03	25.6	1575	1260
		7/2/10	6.16	26.3	1338	1020
		7/13/11	6.32	24.8	1726	644
		2/2/12	6.45	24.8	1600	624
		7/13/12	6.71	25.7	1571	545
		2/18/13	6.45	25.4	1530	498
		2/18/13 DUP	6.45	25.4	1530	494
		8/13/13	6.57	25.5	1586	520
		8/7/14	6.56	25.8	1417	442
		7/11/17	6.14	25.6	3790	1810
		8/1/19	6.20	25.7	3860	1770
BMO-2008-10GU	909272	8/4/08	6.41	23.6	3660	2210
		11/5/08	6.15	20.2	3343	1890
		2/25/09	5.96	22.7	3426	1740
		5/6/09	5.99	23.2	3359	1710
		8/11/09	6.28	22.5	3348	1690
		11/2/09	6.27	21.8	3157	1730
		3/10/10	6.67	19.1	3951	1700
		4/7/10	5.96	20.4	3210	1510
		7/6/10	5.90	21.8	1610	1670
		7/13/11	6.12	22.3	3890	1670
		2/1/12	6.09	19.2	3820	1870
		8/19/13	6.10	21.0	3630	1780
		8/9/17	6.06	20.4	3860	1990
		8/9/17 DUP	6.06	20.4	3860	1960
		8/1/19	6.11	21.3	3900	1830
BMO-2008-11G	909434	8/22/08	8.02	28.2	359	14.2
		11/12/08	7.96	24.2	257	13.9
		2/26/09	7.92	25.1	319	12.3
		4/28/09	8.14	25.5	273	11.8
		8/12/09	8.24	25.3	365	11.2
		11/9/09	8.03	25.5	339	13.9
		3/1/10	8.37	23.2	338	13.0
		4/9/10	6.88	24.5	301	13.0
		7/1/10	6.97	25.4	298	12.3
		2/10/11	6.99	24.0	327	11.7
		7/22/11	7.26	24.6	331	12.1
		7/22/11 DUP	7.26	24.6	331	12.0
		1/31/12	7.41	24.1	328	11.9
		8/14/12	7.35	24.6	337	12.3
		2/13/13	7.54	24.2	343	11.9
		8/27/13	7.48	24.9	363	12.2
		2/19/14	7.51	24.2	363	12.2
		8/14/14	7.58	24.7	360	12.4
		2/5/15	7.87	24.8	334	12.5
		9/14/15	7.78	25.3	335	12.3
		9/14/15 DUP	7.78	25.3	335	12.4
		3/15/16	7.76	24.9	334	12.2
		8/17/16	7.96	25.6	332	12.6
		3/2/17	7.59	24.8	328	12.5
		7/11/17	7.85	25.4	333	12.4
		2/12/18	7.96	24.4	341	13.1
		7/12/18	7.89	25.4	339	13.3
		1/28/19	7.99	25.2	338	12.2
		8/6/19	7.88	25.4	338	12.2
		2/4/20	7.88	24.7	341	13.3
		8/13/20	7.92	25.3	340	11.9
		8/13/20 DUP	7.92	25.3	340	8.16

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2008-13B	909551	10/3/08	6.49	21.6	2180	980
		2/17/09	6.51	20.9	1941	1000
		5/6/09	6.55	22.0	1891	930
		8/5/09	6.63	21.5	2137	950
		10/28/09	6.81	19.7	2259	1010
		2/16/10	6.87	20.8	2093	997
		4/14/10	6.38	21.2	1346	974
		7/6/10	6.37	21.8	1208	972
		7/15/11	6.44	20.8	2160	1010
		2/9/12	6.68	20.3	2180	1060
		7/11/12	6.55	21.2	2190	1080
		2/27/13	6.54	20.3	2160	1090
		9/4/13	6.57	20.8	2070	1050
		8/19/14	6.63	21.2	1890	1070
		8/2/17	6.67	21.2	2130	1050
		8/20/19	6.68	21.5	2190	1050
BMO-2008-13M	909760	12/3/08	7.73	24.1	1463	494
		2/17/09	8.21	22.7	1340	441
		4/29/09	8.04	24.8	1126	217
		8/5/09	8.04	25.4	1392	387
		10/28/09	8.12	21.4	1347	403
		2/16/10	8.07	24.9	1297	375
		4/13/10	8.06	23.2	1130	398
		7/2/10	8.30	23.9	1027	386
		7/15/11	8.4	23.4	1331	388
		2/6/12	8.47	23.2	1300	ND
		8/13/12	8.75	24.2	1311	397
		2/15/13	8.8	22.4	1280	383
		9/6/13	8.81	23.8	1300	402
		8/20/14	8.48	23.6	1362	410
		8/15/17	8.42	24.7	1305	386
		8/20/19	8.78	23.9	1299	388
BMO-2010-1M	219957	9/9/10	7.82	24.6	727.0	150
		11/11/10	8.68	19.9	570	98
		2/11/11	8.15	20.8	589	138
		5/12/11	7.74	23.0	710	129
		8/31/11	7.74	23.2	562	154
		12/13/11	7.63	21.3	713	149
		2/8/12	7.69	22.0	605	158
		4/24/12	7.08	23.4	701	150
		7/9/12	6.37	24.3	715	161
		10/17/12	7.40	23.9	699	154
		2/13/13	7.09	22.2	712	152
		5/8/13	7.12	22.5	725	160
		8/15/13	7.39	23.5	767	156
		11/4/13	7.38	22.6	774	163
		2/12/14	8.33	22.0	672	161
		6/2/14	7.55	23.3	771	165
		8/4/14	7.38	23.8	772	179
		11/12/14	7.43	23.4	733	165
		9/9/15	7.59	24.2	729	170
		8/25/16	7.93	23.3	646	169
		7/12/17	7.70	24.0	715	180
		8/7/18	7.85	23.8	751	169
		7/30/19	7.54	24.0	7.32	173
		7/20/20	7.75	24.0	771	187
BMO-2010-2M	219958	9/15/10	6.66	22.6	2054	915
		11/11/10	6.97	20.6	1800	935
		2/10/11	6.53	20.8	2120	950
		5/13/11	6.54	21.1	2160	887
		7/14/11	6.62	21.5	2160	917
		12/13/11	6.59	20.3	2140	984
		1/30/12	6.41	21.4	2180	989
		4/18/12	6.48	21.2	2170	893
		7/9/12	6.41	21.8	2190	1030
		10/17/12	6.60	21.3	2200	998
		2/13/13	6.45	21.0	2190	962
		5/8/13	6.42	21.0	2160	996
		8/15/13	6.58	21.2	2157	978
		11/4/13	6.53	21.9	2120	998
		2/12/14	6.52	21.0	2160	1000
		5/8/14	6.46	21.0	1990	1010
		8/14/14	6.48	21.0	1940	1040
		8/14/14 DUP	6.48	21.0	1940	1030
		11/12/14	6.59	21.3	2210	939
		7/12/17	6.6	22.2	2160	967
		7/30/19	6.67	22.1	2190	894

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2010-3B	219970	7/29/10	7.48	23.1	420	16.0
		11/10/10	7.43	21.2	370	14.9
		1/20/11	7.44	20.9	416.1	14.4
		4/7/11	7.38	20.1	424.6	14.9
		7/13/11	7.68	22.3	404.5	13.8
		10/13/11	7.63	23.4	411.2	15.9
		2/2/12	7.52	20.4	400.2	16.9
		2/2/12 DUP	7.52	20.4	400.2	17.1
		4/24/12	7.30	21.8	390	16.0
		7/5/12	7.51	22.4	419.1	15.7
		10/18/12	7.58	21.6	411.9	17.0
		1/16/13	7.58	20.8	420.5	17.4
		4/16/13	7.65	21.2	415.1	17.5
		7/23/13	7.67	21.8	420	19.8
		10/8/13	7.72	20.9	420.3	16.8
		1/15/14	7.65	20.2	431.2	18.8
		5/13/14	7.66	21.0	421.2	18.0
		5/13/14 DUP	7.66	21.0	421.2	18.0
		7/15/14	7.63	21.8	419.1	19.0
		10/14/14	7.48	22.6	395	17.4
		10/14/14 DUP	7.48	22.6	395	18.1
		1/28/15	7.59	22.2	420	19.2
		7/22/15	7.67	21.8	420	20.7
		2/2/16	7.67	18.9	407.5	16.1
		7/12/16	7.59	21.0	424.9	16.8
		1/18/17	7.45	20.5	413.9	18.8
		7/11/17	7.40	20.7	424.6	16.5
		1/8/18	7.42	20.4	415.7	21.8
		1/8/18 DUP	7.42	20.4	415.7	21.1
		7/10/18	7.44	20.5	428.1	16.0
		1/8/19	7.42	20.2	418.6	19.5
		7/16/19	7.41	20.5	424.5	26.0
		7/16/19 DUP	7.41	20.5	424.5	25.8
		1/6/20	7.67	20.2	425.7	21.0
		8/4/20	7.45	21.4	427.1	19.3
BMO-2010-3M	219969	7/31/10	7.73	24.3	390	14.8
		11/10/10	7.66	21.8	340	12.6
		11/10/10 DUP	7.66	21.8	340	12.7
		1/20/11	7.72	22.6	380.4	11.5
		4/7/11	7.38	23.5	376.5	12.3
		8/25/11	7.17	24.3	340	10.4
		10/13/11	7.73	23.6	375.8	10.5
		2/2/12	7.68	22.0	367.1	10.6
		4/24/12	7.49	23.9	370	10.1
		7/5/12	7.66	23.7	381.8	10.3
		10/18/12	7.71	23.3	379.9	10.4
		1/16/13	7.68	22.1	383.1	10.0
		4/16/13	7.83	22.3	383.7	10.2
		4/16/13 DUP	7.83	22.3	383.7	10.2
		7/23/13	7.80	23.4	386.0	10.7
		10/8/13	7.76	22.8	384.8	9.4
		1/15/14	7.76	22.1	389.8	9.1
		5/13/14	7.75	22.9	387.1	10.4
		7/15/14	7.74	23.1	386.9	10.2
		10/14/14	7.57	24.1	367.0	10.8
		1/28/15	7.70	24.1	391	10.6
		7/22/15	7.79	23.5	383.9	8.64
		7/22/15 DUP	7.79	23.5	383.9	9.25
		2/2/16	7.83	19.8	367.5	8.46
		7/12/16	7.75	22.7	383.3	10.1
		1/18/17	7.54	22.2	382.3	9.97
		7/11/17	7.52	22.6	384.8	8.97
		1/8/18	7.52	22.2	379.7	9.69
		7/10/18	7.55	22.1	389.2	9.17
		1/8/19	7.42	22.0	378.4	8.97
		7/16/19	7.53	22.4	385.6	8.97
		1/6/20	7.69	21.2	369.3	9.01
		1/6/20 DUP	7.69	21.2	369.3	9.07
		8/4/20	7.53	23.1	388.6	8.98

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2012-1M	221388	11/13/12	7.55	21.3	933.7	231
		2/27/13	6.97	22.4	793	205
		5/8/13	6.77	22.9	814	197
		8/14/13	7.09	22.9	858	202
		11/1/13	6.98	22.4	850	210
		2/13/14	7.00	22.2	883	214
		5/8/14	6.90	22.9	875	207
		7/22/14	6.99	22.6	857	210
		11/13/14	7.10	22.6	839	208
		2/4/15	7.40	22.5	843	214
		9/10/15	7.29	23.3	862	216
		3/3/16	7.32	23.4	888	222
		8/17/16	7.15	23.3	928	222
		3/2/17	6.98	23.1	922	236
		3/2/17 DUP	6.98	23.1	922	228
		7/24/17	7.08	23.0	938	250
		8/21/17	7.14	22.8	944	221
		2/13/18	7.24	22.7	960	237
		7/16/18	7.33	23.4	960	236
		1/29/19	7.25	22.6	956	215
		7/31/19	7.22	23.3	959	213
		2/4/20	7.25	22.8	954	223
		7/21/20	7.22	23.1	960	217
BMO-2014-1BL	917394	11/7/14	7.21	24.2	716	160
		1/29/15	7.46	22.2	686	167
		4/15/15	7.43	21.9	695.0	167
		7/29/15	7.57	22.8	695.0	149
		10/7/15	7.55	21.6	685.9	156
		10/7/15 DUP	7.55	21.6	685.9	156
		2/4/16	7.66	20.2	675.4	146
		4/6/16	7.43	21.7	696.3	152
		7/14/16	7.47	21.9	690.7	151
		11/2/16	7.28	21.6	689.9	143
		1/24/17	7.29	21.4	684.6	156
		7/13/17	7.26	21.6	687.5	158
		1/10/18	7.24	21.5	685.3	159
		7/12/18	7.25	21.7	693.4	163
		1/10/19	7.15	21.8	683.6	158
		7/18/19	7.15	22.5	691.5	150
		1/8/20	7.52	23.9	701.7	163
BMO-2014-1BU	917393	11/13/14	7.46	22.1	571	84
		1/28/15	7.45	21.6	694	170
		4/15/15	7.40	21.3	735.2	189
		7/29/15	7.55	22.3	729.7	165
		10/7/15	7.51	20.9	728.8	182
		2/4/16	7.51	20.1	715.7	163
		4/6/16	7.47	21.0	733.5	172
		7/14/16	7.45	21.6	724.8	170
		7/14/16 DUP	7.45	21.6	724.8	169
		11/2/16	7.29	20.9	719.5	155
		1/24/17	7.28	20.5	722.8	178
		7/13/17	7.27	20.8	736.4	184
		1/10/18	7.25	20.5	694.3	158
		7/12/18	7.24	20.7	730.3	181
		1/10/19	7.16	20.4	729.9	172
		1/10/19 DUP	7.16	20.4	729.9	175
		7/18/19	7.15	20.5	717.9	170
		1/8/20	7.36	19.2	703.5	169
		8/6/20	7.23	21.2	732.1	168
BMO-2014-2BL	917452	11/20/14	7.34	22.8	804	210
		1/29/15	7.36	20.8	1109	463
		4/15/15	7.27	21.2	1169	463
		7/29/15	7.34	22.5	1191	452
		10/7/15	7.41	20.8	1180	467
		2/4/16	7.38	19.7	1164	434
		2/4/16 DUP	7.38	19.7	1164	428
		4/6/16	7.43	21.2	1187	456
		7/14/16	7.27	21.9	1182	437
		11/2/16	7.18	20.8	1184	422
		1/24/17	7.11	21.3	1170	453
		9/6/17	7.08	20.7	1197	441
		1/10/18	7.10	20.5	1167	448
		7/12/18	7.12	20.4	1186	445
		1/10/19	7.07	20.4	1168	470
		7/18/19	7.01	20.4	1178	433
		1/8/20	7.37	18.1	1147	454
		8/6/20	7.08	21.1	1187	421

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2014-2BU	917453	12/1/14	7.35	20.8	819.2	230
		1/30/15	7.65	19.9	524	63.8
		4/15/15	7.56	20.7	536.1	64.8
		7/29/15	7.62	22.2	538.7	58.2
		10/7/15	7.74	20.6	541.1	62.0
		2/4/16	7.58	19.8	528.0	56.5
		4/6/16	7.58	21.7	539.3	58.6
		7/14/16	7.56	21.4	536.6	59.9
		11/2/16	7.39	20.2	535.9	55.8
		1/24/17	7.36	20.1	531.2	61.0
		7/13/17	7.38	20.1	536.9	60.1
		1/10/18	7.35	19.8	525.4	57.0
		7/12/18	7.37	20.1	537.5	55.6
		1/10/19	7.31	19.8	534.0	55.2
		7/18/19	7.27	19.8	544.3	54.9
		1/8/20	7.53	18.6	535.4	58.6
		8/6/20	7.35	20.6	551.0	56.4
BMO-2014-3BL	917527	2/13/15	7.34	22.4	384	7.84
		4/15/15	7.72	21.6	402.3	8.73
		7/29/15	7.72	23.1	413.7	7.92
		10/7/15	7.64	21.6	415.6	8.51
		2/4/16	7.62	20.9	409.8	8.36
		4/6/16	7.62	21.9	424.9	8.62
		7/14/16	7.62	22.7	419.4	8.77
		11/2/16	7.40	21.4	423.2	7.98
		1/25/17	7.38	21.4	406.4	8.37
		7/13/17	7.37	21.7	423.3	8.69
		1/12/18	7.31	21.3	402.0	8.25
		1/12/18	7.31	21.3	402.0	8.25
		7/12/18	7.42	21.5	423.0	7.71
		1/10/19	7.29	21.4	412.3	7.73
		7/18/19	7.31	21.5	413.5	7.45
		1/9/20	7.58	20.0	414.7	8.31
		8/6/20	7.33	22.3	415.1	7.59
BMO-2014-3BU	917494	2/24/15	7.64	18.2	471.4	8.22
		4/15/15	7.67	20.4	469.5	8.71
		7/29/15	7.62	21.9	471.9	7.46
		10/7/15	7.62	20.4	467.9	7.82
		2/4/16	7.64	19.7	466.4	7.68
		4/6/16	7.53	20.9	473.2	8.25
		7/14/16	7.56	21.3	465.9	8.57
		11/2/16	7.40	20.0	471.1	7.79
		1/25/17	7.36	20.0	458.1	8.06
		7/13/17	7.34	20.2	472.9	8.55
		1/12/18	7.28	20.0	457.5	8.06
		7/12/18	7.35	20.0	470.0	7.95
		1/10/19	7.28	19.9	470.2	7.54
		7/18/19	7.28	20.0	474.2	7.63
		1/9/20	7.57	17.8	471.2	8.00
		8/6/20	7.31	20.7	478.8	7.18

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2014-4B	917620	3/4/15	7.68	20.3	524.0	64.7
		4/14/15	7.61	20.9	494.7	61.7
		7/23/15	7.60	21.7	493.7	57.2
		10/6/15	7.70	20.5	481.9	52.7
		2/3/16	7.74	19.8	491.1	58.2
		4/5/16	7.61	20.9	491.9	53.2
		7/13/16	7.55	21.3	478.3	48.0
		7/13/16 DUP	7.55	21.3	478.3	48.3
		11/1/16	7.58	20.6	472.7	42.5
		11/1/16 DUP	7.58	20.6	472.7	42.1
		1/23/17	7.42	20.4	493.0	63.6
		7/12/17	7.41	20.5	483.0	56.7
		1/9/18	7.39	20.3	490.9	64.7
		7/11/18	7.38	20.3	467.7	47.4
		1/9/19	7.36	20.2	490.2	62.1
		7/17/19	7.36	20.3	494.9	62.8
		1/7/20	7.66	18.1	492.5	63.9
		8/5/20	7.26	21.2	487.7	56.2
BMO-2014-4BL	917619	3/1/15	7.63	21.1	671.9	165
		4/14/15	7.63	21.4	665.1	184
		7/23/15	7.66	21.9	669.7	185
		7/23/15 DUP	7.66	21.9	669.7	169
		10/6/15	7.71	20.9	660.4	176
		2/3/16	7.69	20.1	660.2	165
		4/5/16	7.53	21.2	671.7	171
		7/13/16	7.51	21.5	653.5	165
		11/1/16	7.47	20.9	665.8	160
		1/23/17	7.37	20.6	672.1	182
		7/12/17	7.42	20.7	674.4	178
		1/9/18	7.36	20.5	681.5	183
		7/11/18	7.32	20.6	687.8	187
		1/9/19	7.36	20.4	701.1	193
		7/17/19	7.30	20.5	720.3	192
		1/7/20	7.61	19.1	725.6	206
		8/5/20	7.21	21.4	687.8	166
BMO-2015-1B	917622	3/15/15	8.11	20.2	676.3	175
		4/14/15	7.59	20.9	680.1	187
		7/23/15	7.68	21.7	690.7	201
		10/6/15	7.66	20.6	681.9	190
		2/3/16	7.64	19.8	678.5	173
		4/5/16	7.57	20.5	691.4	181
		7/13/16	7.52	21.2	675.3	172
		11/1/16	7.44	20.4	683.6	163
		1/23/17	7.43	20.4	692.6	193
		7/12/17	7.44	20.5	697.6	190
		1/9/18	7.36	20.3	703.1	203
		7/11/18	7.39	20.3	705.9	194
		1/9/19	7.32	20.3	711.9	208
		7/17/19	7.32	20.3	726.4	203
		1/7/20	7.45	18.3	719.8	210
		8/5/20	7.34	21.0	725.0	206
BMO-2015-1BL	917621	3/12/15	7.70	20.8	708.2	221
		4/14/15	7.55	20.7	733.4	239
		7/23/15	7.62	22.3	747.3	259
		10/6/15	7.74	20.8	747.3	232
		2/3/16	7.71	19.2	736.1	219
		2/3/16 DUP	7.71	19.2	736.1	215
		4/5/16	7.58	21.0	767.1	231
		7/13/16	7.49	21.6	763.8	231
		11/1/16	7.41	20.6	770.0	221
		1/23/17	7.39	20.5	769.1	249
		7/12/17	7.37	20.6	780.5	253
		1/9/18	7.38	20.5	784.5	251
		7/11/18	7.35	20.5	791.5	253
		1/9/19	7.30	20.4	800.5	259
		7/17/19	7.29	20.4	797.7	255
		1/7/20	7.38	19.6	787.0	261
		8/5/20	7.31	21.2	820.1	266

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
BMO-2015-2B	917827	3/19/15	7.43	20.0	795.2	288
		4/14/15	7.41	20.7	832.4	271
		7/23/15	7.47	22.2	847.5	292
		10/6/15	7.60	20.9	844.3	262
		2/3/16	7.48	20.4	823.2	247
		4/5/16	7.44	21.4	849.8	258
		7/13/16	7.33	21.8	837.2	250
		11/1/16	7.26	20.6	848.1	247
		1/23/17	7.26	20.5	849.6	268
		7/12/17	7.27	20.4	847.9	273
		1/9/18	7.25	20.2	841.9	276
		7/11/18	7.17	20.4	856.9	261
		1/9/19	7.19	20.1	873.3	277
		7/17/19	7.16	20.3	875.0	270
		1/7/20	7.45	17.4	864.6	277
		8/5/20	7.22	21.1	884.1	299
BMO-2015-2BL	917828	3/26/15	7.29	22.3	887.1	280
		4/14/15	7.38	20.9	860.0	305
		7/23/15	7.43	22.1	902.3	323
		10/6/15	7.54	21.2	890.3	304
		2/3/16	7.45	20.5	884.7	278
		4/5/16	7.42	21.3	903.9	296
		4/5/16 DUP	7.42	21.3	903.9	292
		7/13/16	7.33	21.8	903.7	296
		11/1/16	7.24	20.8	905.7	282
		1/23/17	7.25	20.6	909.8	315
		7/12/17	7.23	20.7	921.0	317
		1/9/18	7.19	20.5	915.5	320
		7/11/18	7.14	20.5	923.8	307
		1/9/19	7.15	20.3	924.6	320
		7/17/19	7.11	20.5	942.6	318
		1/7/20	7.14	17.1	918.0	323
		8/5/20	7.13	21.2	946.2	327
		8/5/20 DUP	7.13	21.2	946.2	333
BOOTH	914931	1/5/13	7.67	18.5	574.3	91.4
		6/14/13	7.61	51.1	604.2	95
		6/14/13 DUP	7.61	51.1	604.2	92.5
		7/17/13	7.75	23.2	497.6	75
		10/18/13	7.66	19.3	597.6	92.6
BURKE	212268	2/7/08	7.17	23.0	411	29.5
		4/22/08	7.13	27.0	423	26
		8/5/08	7.06	26.8	496	21.9
		10/20/08	7.57	26.0	466	20.5
		2/11/09	7.23	25.0	363	23.9
		4/28/09	7.16	26.1	369	24.2
		8/19/09	7.36	26.7	486	22.5
		12/16/09	7.28	25.7	488	26
		3/2/10	7.56	12.3	432	23.8
		4/22/10	7.49	16.4	452	24.8
		7/21/10	7.56	25.6	423.7	33.1
		10/10/13	7.87	21.9	469.6	27.5
		1/8/14	8.17	10.9	464.9	28.6
		4/16/14	7.80	21.1	471.0	28.3
		7/21/14	8.19	27.8	448.8	29.6
		10/21/14	8.06	22.2	456.0	29.1
		8/3/15	7.72	27.4	479.3	27.2
		7/21/16	7.98	26.4	478.0	28.6
		7/21/16 DUP	7.98	26.4	478.0	28.5
		7/25/17	7.91	23.5	475.3	31.7
		7/26/18	7.51	27.4	480.8	30.5
		7/9/19	7.48	26.2	487.1	30.8
		8/11/20	7.57	28.0	491.2	34.3

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
CHAMBERS	629807	3/6/08	7.73	17.8	408	7.7
		5/5/08	7.15	22.1	421	6
		7/14/08	7.43	23.2	434	5.8
		10/15/08	7.41	22.5	420	4
		1/27/09	7.57	21.5	312	5.3
		4/14/09	7.42	22.4	384	6.8
		7/15/09	7.83	23.4	414	4.3
		10/13/09	7.41	22.6	410	6.5
		1/26/10	7.31	21.3	416	5.7
		4/23/10	7.47	20.9	427.5	8.34
		7/21/10	7.49	23.1	430	7.75
		10/19/10	8.00	23.0	440	7.04
		1/18/11	7.47	22.4	390	7.30
		4/11/11	7.18	22.0	427.3	7.74
		7/18/11	7.18	23.8	420.2	8.18
		10/12/11	7.33	22.6	425.8	7.8
		2/6/12	7.43	21.8	434.6	9.08
		4/23/12	7.46	22.7	460	8.84
		7/17/12	7.31	22.4	410	8.41
		10/8/12	7.44	22.4	430.0	10.1
		1/10/13	7.57	21.5	440.8	9.64
		4/18/13	7.49	21.7	434.1	9.78
		7/15/13	7.40	22.7	434.6	9.81
		7/15/13 DUP	7.40	22.7	434.6	10.2
		10/10/13	7.51	21.8	439.7	10.3
		1/13/14	7.56	21.0	431.3	10.7
		4/14/14	7.48	22.2	435.9	10.9
		7/10/14	7.50	22.9	436.4	11.0
		10/17/14	7.31	22.5	456.0	10.8
		7/21/15	7.48	22.7	447.7	11.4
		7/14/16	7.49	22.8	459.8	13.2
		7/25/17	7.34	21.3	450.4	13.2
		7/10/19	7.27	28.0	417.7	6.88
COB MW-1	903992	2/22/08	6.93	21.2	1401	720
		5/20/08	6.88	22.0	2050	980
		7/30/08	6.88	21.7	1780	730
		10/23/08	6.95	21.2	1690	750
		2/12/09	6.92	21.1	1313	750
		4/21/09	7.15	22.7	1366	720
		7/22/09	6.94	21.6	1570	680
		7/22/09 DUP	6.94	21.6	1570	730
		10/22/09	6.81	22.3	1582	820
		2/4/10	7.04	21.1	1653	680
		4/20/10	6.92	21.8	1836	783
		7/13/10	7.02	22.3	2004	919
		7/14/11	6.78	21.4	1924	927
		7/12/12	6.74	23.4	1760	805
		2/5/13	6.95	21.5	1773	877
		7/11/13	7.17	21.4	1858	842
		7/9/14	6.95	21.5	2000	1000
		7/9/14 DUP	6.95	21.5	2000	1020
		7/27/15	6.96	21.6	1993	902
COB MW-1B	225906	7/20/16	6.63	21.8	2405	1210
		7/19/17	6.51	20.9	2474	1160
		7/24/19	6.70	20.6	1793	827

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COB MW-2	903984	5/20/08	7.32	21.2	490	40.5
		7/30/08	7.34	20.8	511	37.6
		10/23/08	7.36	20.3	498	34.9
		2/12/09	7.35	20.2	379	35.6
		4/23/09	7.33	21.8	431	34
		7/22/09	7.36	21.3	483	33.5
		10/22/09	7.24	21.0	454	32.2
		3/3/10	7.55	19.7	450	33.5
		4/26/10	7.28	21.3	479.6	34.8
		7/13/10	6.91	21.2	479.5	30.4
		7/13/10 DUP	6.91	21.2	479.5	30.6
		1/20/11	7.47	20.7	440	29.6
		7/14/11	7.11	21.1	472.6	29.8
		1/31/12	7.53	20.3	466.6	30.0
		7/12/12	7.36	21.2	630	29.2
		1/9/13	7.48	20.0	473.5	35.8
		7/25/13	7.34	20.9	485.4	40.6
		1/6/14	7.58	19.9	487.8	40.5
		7/9/14	7.52	20.5	503.5	43.7
		2/4/15	7.38	20.3	619	40.5
		7/27/15	7.57	20.8	514.6	40.3
		7/27/15 DUP	7.57	20.8	514.6	41.6
		1/11/16	7.54	19.5	510.6	41.2
		7/20/16	7.52	20.0	523.7	41.6
		1/19/17	7.40	19.5	525.8	41.5
		7/19/17	7.29	19.5	548.6	39.6
		1/11/18	7.26	19.3	552.3	36.1
		7/17/18	7.28	19.4	572.5	32.6
		1/15/19	7.26	19.2	578.3	26.0
		7/24/19	7.19	19.2	598.4	24.6
		1/14/20	7.53	18.7	578.3	24.8
		8/11/20	7.25	19.9	600.6	23.2
COB MW-3	906823	2/28/08	7.39	21.0	416	57.8
		3/27/08	ND	ND	ND	57.7
		4/30/08	ND	ND	ND	37
		5/20/08	7.56	22.3	473	35.8
		7/24/08	ND	ND	ND	64.9
		7/30/08	7.64	22.3	541	67.3
		10/9/08	ND	ND	ND	52.5
		10/23/08	7.43	20.8	507	76.6
		2/12/09	7.35	21.1	432	112
		4/23/09	7.35	22.6	407	43.7
		7/22/09	7.38	21.5	460	52.3
		10/22/09	7.40	21.3	466	74.2
		10/22/09 DUP	7.40	21.3	466	73.9
		3/3/10	7.36	21.1	480	102
		4/26/10	7.35	22.0	497.9	77.6
		7/13/10	7.41	21.7	456.7	46.5
		7/14/11	7.19	21.8	440.0	40.1
		7/12/12	7.34	21.4	450	39.5
		2/5/13	7.60	20.4	476.4	65.1
		2/5/13 DUP	7.60	20.4	476.4	64.7
		7/25/13	7.42	21.4	485.0	66.6
		7/9/14	7.61	21.4	525.3	90.9
		7/27/15	7.56	21.6	560.3	105
		7/20/16	7.48	20.4	507.4	72.7
		7/19/17	7.34	20.2	529.5	84.1
		7/17/18	7.37	20.0	528.5	92.7
		7/24/19	7.38	19.7	498.8	68.5
		8/11/20	7.48	20.4	485.8	59.0

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COB WL	593116	2/22/08	6.99	20.6	919	90
		3/24/08	ND	ND	ND	98.2
		4/28/08	ND	ND	ND	98.7
		5/20/08	7.30	21.9	1053	98
		7/30/08	7.17	22.0	1098	97.1
		7/30/08	ND	ND	ND	100
		10/15/08	ND	ND	ND	107
		10/23/08	7.23	21.4	1075	104
		2/12/09	6.98	20.6	814	94
		4/23/09	7.29	22.2	923	98
		7/22/09	7.17	22.5	1037	97.3
		10/22/09	7.17	22.4	988	96.1
		3/3/10	7.48	21.1	1030	97.1
		4/26/10	7.36	21.9	1038	97.7
		4/26/10 DUP	7.36	21.9	1038	97.9
		7/13/10	7.18	22.3	1013	88.7
		7/14/11	6.91	21.6	1019	87.3
		7/12/12	7.07	23.2	1060	92.0
		2/5/13	7.91	21.5	1057	98.3
		7/25/13	7.23	22.7	1074	97.6
		7/9/14	7.42	21.8	1132	81.5
		2/4/15	6.90	23.3	1488	73.7
		7/27/15	7.25	22.9	1221	69.6
		1/11/16	7.25	20.4	1195	73.5
		7/20/16	7.12	22.5	1184	74.4
		1/25/17	7.07	21.5	1167	79.8
		7/14/17	7.07	21.9	1162	80.4
		1/11/18	7.07	21.7	1169	77.3
		7/9/18	7.21	21.8	1165	73.0
		7/9/18 DUP	7.21	21.8	1165	74.5
		1/7/19	6.97	21.5	1163	73.1
		1/7/19 DUP	6.97	21.5	1163	74.0
		7/15/19	7.10	22.2	1154	71.2
		1/7/20	7.21	20.5	1122	76.1
		8/4/20	7.06	23.4	1108	84.8
COLLINS	565260	2/12/08	6.88	21.6	1470	520
		5/29/08	7.01	22.0	1459	520
		7/31/08	6.86	21.6	1502	536
		10/20/08	8.44	24.7	1510	518
		2/11/09	6.68	21.4	1147	567
		4/21/09	6.92	22.5	1150	499
		7/22/09	7.00	22.4	1413	460
		10/20/09	6.60	21.9	1432	513
		2/2/10	6.98	21.2	1439	471
		4/23/10	6.99	20.6	1472	561
		7/20/10	6.69	25.0	1420	569
		7/17/13	6.97	21.6	1409	519

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
COOPER	623564	2/14/08	7.02	20.8	371	33
		5/14/08	8.08	22.1	419	34.2
		7/31/08	7.81	28.4	455	33.7
		10/20/08	8.44	24.7	448	31.2
		2/11/09	7.32	19.2	333	34.3
		4/21/09	8.19	24.9	346	33.4
		7/20/09	8.45	29.8	430	32.3
		10/14/09	7.85	24.6	423	33.6
		2/1/10	7.83	13.6	433	32.4
		4/22/10	7.82	17.9	433	34.5
		7/19/10	7.98	29.3	420	35.0
		10/18/10	7.12	73.1	450	33.1
		1/19/11	8.83	18.4	410	32.1
		4/11/11	7.65	21.0	442.6	34.3
		7/11/11	7.45	24.2	426.5	32.1
		11/22/11	7.86	20.6	426.1	33.7
		2/1/12	7.97	21.8	429.2	34.1
		4/10/12	7.41	22.4	426.8	32.5
		7/18/12	7.45	22.9	430	33.4
		10/9/12	7.70	22.1	432.8	34.3
		1/11/13	7.76	21.5	434.1	32.7
		4/10/13	7.72	21.1	427.5	31
		7/11/13	7.65	23.2	432.5	31.9
		10/7/13	7.68	22.7	430.5	31.4
		1/16/14	7.65	21.6	431.7	30.8
		4/10/14	7.66	22.3	433.1	31.5
		7/10/14	7.68	22.4	428.8	32.2
		10/8/14	7.37	23.5	408	31.1
		1/27/15	7.67	20.5	411	29.8
		8/3/15	7.67	22.7	421.3	27.1
		3/31/16	7.52	22.4	410	28.8
		7/25/16	7.62	22.4	420.2	27.3
		1/25/17	7.56	20.8	412.8	26.2
		7/17/17	7.48	21.6	417.1	35.6
		1/16/18	7.45	20.8	402.8	26.1
		7/16/18	7.45	21.8	415.8	25.5
		1/16/19	7.45	20.5	412.0	23.7
		7/8/19	7.50	22.3	417.1	23.4
		1/21/20	7.08	21.2	418.9	20.9
		1/21/20 DUP	7.08	21.2	418.9	21.2
COOPER C	637069	3/20/08	6.93	21.3	2081	880
		5/5/08	6.78	22.4	2139	990
		7/15/08	6.86	22.3	2162	1040
		7/15/08 DUP	6.86	22.3	2162	960
		10/16/08	6.80	21.4	2078	1020
		1/27/09	6.92	20.5	1489	950
		4/14/09	6.85	21.6	1833	930
		7/14/09	6.75	22.1	1972	910
		10/12/09	6.70	21.8	1858	830
		1/27/10	7.27	19.6	1930	620
		4/22/10	6.76	19.5	1921	884
		7/21/10	6.84	22.9	1761	921
		10/20/10	7.16	20.9	1980	829
		1/17/11	6.95	20.5	1880	756
		4/11/11	6.82	21.0	1942	834
		8/26/11	6.84	21.8	1800	847
		2/1/12	7.13	20.5	2024	867
		4/25/12	6.83	21.5	1960	817
		7/11/12	6.48	22.8	2030	834
		10/10/12	6.98	21.2	1985	863
		2/27/13	6.58	20.9	1805	821
		5/8/13	6.41	20.7	1744	798
		8/13/13	6.69	21.2	1739	756
		11/1/13	6.61	21.2	1624	738
		2/10/14	6.69	21.6	1616	715
		5/7/14	6.48	22.5	1612	686
		7/21/14	6.63	23.1	1548	671
		11/13/14	6.87	22.4	1520	638
		9/10/15	6.84	22.8	1997	641
		8/18/16	6.92	25.2	1468	647
		7/13/17	6.99	23.0	1461	639
		7/25/18	6.95	22.2	1545	661
		8/19/19	7.01	21.3	1568	623
		8/17/20	6.97	21.9	1546	599

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
DODSON	644927	2/20/08	7.61	17.3	857	54
		5/12/08	7.11	21.1	1118	34.2
		7/24/08	7.25	21.6	1233	49.3
		10/13/08	7.15	20.5	1095	56.9
		1/22/09	7.20	20.4	892	51.8
		4/9/09	7.09	21.4	1103	50.1
		7/8/09	7.18	21.1	1153	55.9
		10/6/09	7.07	21.1	1140	49.3
		1/21/10	7.15	18.9	1227	44.6
		4/19/10	7.46	19.9	1261	48.8
		4/19/10 DUP	7.46	19.9	1261	48.6
		7/20/10	7.16	22.7	1260	47.5
		10/18/10	6.43	21.2	1260	49.3
		1/19/11	7.88	19.5	1120	57.9
		4/5/11	7.03	20.9	1300	49.0
		7/12/11	6.86	23.7	1352	52.9
		10/10/11	6.79	20.9	1280	50.9
		10/10/11 DUP	6.79	20.9	1280	49.6
		1/31/12	7.17	20.3	1454	50.4
		4/12/12	7.06	20.6	1492	45.4
		7/11/12	7.10	21.5	1790	54.0
		10/4/12	7.27	20.6	1626	48.7
		1/18/13	7.27	20.2	1743	51.8
		1/18/13 DUP	7.27	20.2	1743	51.6
		4/9/13	7.33	19.6	1886	74.4
		7/9/13	7.39	21.0	1825	53.6
		10/9/13	7.24	20.2	1612	63.3
		1/9/14	7.31	19.7	1586	61.4
		4/15/14	7.24	20.7	1636	58.5
		7/14/14	7.27	21.9	1651	54.4
		10/16/14	7.12	21.3	1706	53.2
		1/26/15	7.46	20.2	1650	59.5
		1/26/15 DUP	7.46	20.2	1650	59.9
		7/23/15	7.34	21.1	1716	60.8
		1/12/16	7.41	18.6	1749	49.2
		7/18/16	7.28	20.7	2233	49.1
		1/26/17	7.06	19.8	2049	45.9
		7/17/17	7.07	19.9	1920	46.1
		1/17/18	7.01	19.6	1922	45.4
		7/30/18	7.05	19.4	2408	39.1
		1/15/19	6.49	19.5	2322	38.9
		7/9/19	6.94	20.8	2362	35.3
		1/15/20	7.27	19.1	2275	42.3
		8/13/20	6.87	20.6	2215	45.2
DURAZO	NR	2/10/09	7.22	18.8	848	386
		4/20/09	7.37	22.7	901	367
		7/15/09	7.57	22.8	1102	332
		10/14/09	7.17	21.9	1048	377
		2/1/10	7.30	21.1	1105	344
		4/26/10	7.22	23.1	1099	388
		7/20/10	7.28	23.0	1070	405
		10/19/10	7.28	21.9	1112	398
		1/19/11	7.94	21.6	1050	360
		4/4/11	7.20	21.9	1119	383
		7/14/11	7.01	23.6	1101	409
		10/12/11	7.23	24.9	1000	396
		2/7/12	7.26	25.3	1152	404
		4/12/12	7.41	21.8	1101	407

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
EAST	599796	2/8/08	7.45	19.9	423	10.6
		5/14/08	7.31	20.9	595	14.8
		7/23/08	7.34	20.8	605	11.8
		10/14/08	7.33	20.3	531	8.9
		1/20/09	7.33	20.0	482	12.5
		4/8/09	7.32	20.6	555	15.9
		7/13/09	7.33	21.2	613	13.8
		10/8/09	7.29	20.8	593	13.4
		1/25/10	7.08	19.0	585	10.7
		4/21/10	7.42	20.5	616	14.4
		4/21/10 DUP	7.42	20.5	616	13.9
		7/14/10	7.45	22.2	577.1	12.1
		10/20/10	7.64	21.2	650	12.1
		1/18/11	7.44	21.0	615.9	13.1
		4/5/11	7.19	20.8	612.5	13.8
		7/12/11	7.23	21.7	595.1	12.7
		10/12/11	7.31	21.4	599.7	15.1
		10/12/11 DUP	7.31	21.4	599.7	15.1
		1/31/12	7.24	20.0	610	12.8
		4/11/12	7.53	20.6	609.3	14.6
		7/9/12	7.20	21.1	580	14.2
		10/4/12	7.49	20.4	623.8	15.0
		1/17/13	7.46	20.0	613.0	13.1
		4/9/13	7.54	19.6	597.7	12.2
		7/9/13	7.46	21.2	603.6	12.1
		10/15/13	7.51	20.2	622.6	17.2
		1/14/14	7.54	20.2	632.2	15.5
		1/14/14 DUP	7.54	20.2	632.2	15.5
		4/8/14	7.44	20.5	634.7	15.3
		7/8/14	7.43	20.7	618.8	13.1
		10/22/14	7.23	22.8	601.0	20.7
		7/24/15	7.5	21.0	626.5	13.1
		7/12/16	7.30	21.3	615.9	14.7
		7/27/17	7.22	19.8	620.9	14.2
		7/30/18	7.26	19.8	605.9	12.4
		7/17/19	7.25	19.6	603.8	11.8
		8/13/20	7.17	20.3	612.3	12.2
ECHAVE	219449	2/1/12	7.39	20.7	390.0	26.7
		4/23/12	7.50	22.5	440.0	26.4
		7/17/12	7.44	22.2	430	26.1
		10/9/12	7.69	21.9	404.7	26.1
		10/9/12 DUP	7.69	21.9	404.7	26.0
		1/18/13	7.61	21.7	408.5	25.4
		5/14/13	7.74	22.2	400.2	25.2
		7/17/13	7.81	22.1	406.4	24.3
		10/8/13	7.66	21.4	404.3	24.5
		1/13/14	7.68	21.0	412.4	25.7
		4/10/14	7.67	21.4	409.3	26.4
		7/17/14	7.68	21.6	405.0	26.7
		10/22/14	7.43	21.4	406.0	25.9
		8/3/15	7.88	28.7	406.8	24.6
		7/22/16	7.86	27.5	391.5	24.7
		7/28/17	7.59	25.1	403.2	25.7
		7/17/18	7.68	24.3	397.5	24.1
		7/23/19	7.54	26.3	398.3	23.0
		8/10/20	7.74	30.4	397.0	22.2

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
EPPELE 641	805641	3/11/08	7.98	21.4	646	21.7
		5/12/08	7.21	21.7	667	24.7
		7/21/08	7.49	23.9	605	19
		10/14/08	7.56	20.4	642	21.8
		1/21/09	7.60	21.1	500	22.7
		4/8/09	7.56	22.4	538	19.7
		7/9/09	7.43	24.3	550	17.5
		7/20/10	7.58	23.3	529.2	21.1
		10/20/10	7.66	21.0	572.1	17.2
		1/17/11	7.43	21.0	576.4	17.3
		4/5/11	7.43	21.5	569.2	16.7
		7/11/11	7.27	23.5	563.1	18.6
		7/11/11 DUP	7.27	23.5	563.1	18.3
		10/12/11	7.38	20.9	500.0	19.6
		1/31/12	7.68	19.9	560.8	18.2
		4/11/12	7.74	20.6	563.8	19.5
		4/11/12 DUP	7.74	20.6	563.8	19.6
		7/6/12	7.60	21.7	560	18.8
		10/3/12	7.84	20.7	558.8	19.5
		1/17/13	7.76	19.1	559.6	18.8
		4/8/13	7.71	20.4	564.1	17.5
		4/8/13 DUP	7.71	20.4	564.1	17.4
		7/9/13	7.66	21.9	570.1	17.5
		10/15/13	7.86	21.1	682.5	31.9
		1/14/14	7.97	19.1	602.8	29.0
		4/8/14	7.60	19.4	600.2	21.5
		7/8/14	7.65	21.0	596.9	21.6
		10/21/14	7.22	22.2	659	32.2
		7/24/15	7.60	21.2	638.1	22.6
		7/12/16	7.84	24.6	576.6	18.9
		7/12/16 DUP	7.84	24.6	576.6	18.9
		7/27/17	7.70	21.4	563.1	18.8
		7/31/18	7.78	21.6	558.9	17.8
FLEMING	218386	7/15/10	6.98	24.2	1390	573
FRANCO 101	500101	2/6/08	7.47	19.6	1301	670
		5/5/08	6.93	23.1	1557	680
		7/14/08	7.00	22.7	1586	680
		10/15/08	7.20	20.5	1560	680
		1/22/09	7.19	20.1	1178	740
		4/14/09	7.24	23.1	1416	690
		7/13/09	7.30	27.3	1532	670
		10/12/09	7.16	24.2	1493	650
		1/26/10	6.91	18.5	1529	640
		4/23/10	7.43	15.8	1559	699
		7/13/10	7.48	28.6	901.6	188
FRANCO 383	221383	9/13/12	7.66	25.0	1005	318
		10/5/12	7.63	24.4	1002	324
		11/13/12	7.67	19.8	988.2	349
		12/3/12	7.54	19.4	1001	332
		1/15/13	7.52	13.5	1010	333
		2/6/13	7.55	18.9	1004	353
		3/7/13	7.4	20.5	979.9	338
		4/10/13	7.7	20.4	1000	335
		7/10/13	7.69	25.7	1018	335
		10/16/13	7.63	21.9	1018	350
		1/14/14	7.68	20.1	1039	345
		4/8/14	7.68	24.3	1044	351
		4/8/14 DUP	7.68	24.3	1044	330
		7/14/14	7.63	26.5	1030	349
		10/8/14	7.47	23.5	954	335
		7/27/15	7.68	27.3	1047	322
		7/18/16	7.63	26.0	1040	339
		7/20/17	7.36	24.9	1056	337
		7/27/18	7.42	25.8	1063	371
		7/24/19	7.42	24.9	1085	349
		8/12/20	7.40	26.5	1105	367

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
FULTZ	212447	2/27/08	6.76	21.1	1827	152
		4/21/08[1]	6.74	22.0	1739	137
		5/14/08[1]	6.88	22.3	1532	131
		6/23/08[1]	6.74	22.0	1788	111
		7/29/08[1]	6.74	22.2	1989	152
		8/28/08[1]	M	21.6	1889	137
		9/23/08[1]	6.82	21.9	1821	137
		10/22/08	6.80	21.4	1940	145
		1/21/09	6.74	21.2	1481	82
		4/9/09	6.78	21.5	1695	138
		7/13/09	7.04	23.4	1452	81
		10/8/09	7.00	21.6	1262	72
		10/8/09 DUP	7.00	21.6	1262	71.8
		1/25/10	7.11	21.8	1282	66.7
		4/20/10	7.32	21.2	1202	68.3
		7/14/10	7.75	22.2	1132	57.0
		10/20/10	7.27	20.5	1091	54.7
		1/18/11	7.23	20.4	1136	56.9
		4/5/11	7.08	22.1	1082	49.5
		4/5/11 DUP	7.08	22.1	1082	51.7
		8/25/11	6.45	23.3	940	50.6
		10/12/11	7.22	21.7	870	48.5
GALLANT	502527	2/11/08	7.46	20.2	604	17.9
		7/23/08	7.26	21.2	925	20.9
GARNER 635	587635	2/4/08	7.61	22.7	479	37.8
		5/5/08	7.26	24.9	468	35.8
		7/15/08	7.63	25.6	480	37.4
		10/15/08	7.65	24.1	472	36
		1/28/09	7.69	23.4	368	37.4
		4/15/09	7.83	24.1	412	36.9
		7/16/09	7.56	25.1	445	35.7
		10/14/09	7.58	25.2	446	36.1
		2/2/10	7.79	22.8	465	35.1
		4/22/10	7.84	23.7	464.1	36.9
		7/20/10	7.57	25.3	458.2	38.8
		10/19/10	8.23	25.4	510	37.9
		1/19/11	7.82	24.1	463.4	35.7
		1/19/11 DUP	7.82	24.1	463.4	35.7
		4/6/11	7.76	23.4	467.4	35.8
		7/15/11	7.19	25.0	457.40	37.7
		10/11/11	7.57	24.2	400.0	38
		2/2/12	7.38	22.7	469.5	39.2
		4/13/12	7.62	24.0	460.0	33.5
		7/11/12	7.52	24.9	520	37.7
		7/11/12 DUP	7.52	24.9	520	37.2
		10/5/12	8.09	23.1	472.9	39.1
		1/11/13	7.83	23.7	470.8	38.7
		4/15/13	7.79	23.4	471.5	40
		7/10/13	7.9	25.0	469.5	36.7
		10/11/13	7.78	24.0	476.7	38.8
		1/17/14	7.81	23.2	473.6	41
		4/15/14	7.74	23.7	470.7	40.4
		7/26/17	7.46	23.4	474.1	40.6
		7/24/18	7.48	23.9	468.1	41.7
		7/15/19	7.49	23.4	473.6	41.2
		8/6/20	7.51	24.2	473.6	36.3
GGOOSE 547	628547	5/21/08	7.08	22.7	856	199
		8/15/08	7.02	24.8	915	178
		10/29/08	7.27	22.6	897	216
		2/24/09	7.06	23.8	851	186
		5/14/09	7.15	23.9	743	174
		8/19/09	7.20	23.8	887	175
		11/11/09	7.15	23.1	897	188
GL-03	539782	3/4/08	7.43	25.7	417	20.3
		5/22/08	7.06	25.3	647	43.3
		8/4/08	7.10	26.8	673	36.1
		11/12/08	7.21	25.2	478	34.9
		2/26/09	7.05	26.5	603	54.8
		5/5/09	6.91	28.1	682	43.9
		8/1/09	7.12	27.4	768	43.1
		11/10/09	6.96	27.0	692	49
		3/2/10	7.36	24.9	693	43.4
		3/2/10 DUP	7.36	24.9	693	45.1
		4/9/10	6.17	25.6	556	48.1
		7/7/10	6.48	26.3	546	44.4
		2/1/12	6.57	24.1	559	42.0
HARDT	NR	2/5/13	7.15	17.5	670.6	17.7

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
HOBAN	805290	2/27/08	6.93	22.1	1359	510
		5/7/08	6.88	22.3	1532	670
		7/14/08	6.88	23.1	1719	690
		10/16/08	6.98	22.4	1624	692
		1/28/09	6.82	21.3	1220	580
		4/15/09	7.07	21.7	1423	700
		7/14/09	6.78	22.6	1551	670
		10/15/09	6.75	22.7	1487	670
		10/15/09 DUP	6.75	22.7	1487	780
		3/2/10	7.12	19.8	1575	580
		8/31/11	6.64	22.3	1772	893
		12/14/11	6.68	20.2	1870	944
		2/1/12	6.74	20.9	1900	993
		4/19/12	6.81	21.5	1805	868
		7/11/12	6.86	21.4	1906	1110
		10/17/12	6.74	22.0	1846	1040
		2/15/13	6.64	20.7	1934	954
		5/8/13	6.6	21.4	1903	1060
		8/13/13	6.85	21.6	1925	1030
		11/1/13	6.74	21.0	1920	1070
		2/10/14	6.64	21.0	1950	991
		5/7/14	6.69	21.1	1958	1030
		7/21/14	6.69	21.6	1903	1030
		11/13/14	6.88	21.7	1965	1020
		9/10/15	6.82	22.1	1922	1030
		8/18/16	6.77	22.0	1922	1050
		7/13/17	6.77	21.7	1924	1270
		7/13/17 DUP	6.77	21.7	1924	1050
		7/25/18	7.01	22.2	1907	998
		8/7/19	6.90	22.2	1798	923
		9/8/20	7.15	24.4	1487	637
HOWARD 312	221312	8/14/12	8.35	26.3	629.3	69.2
		10/16/12	8.18	26.6	648.3	68.1
		2/6/13	8.18	24.1	650.3	71.9
		4/9/13	8.2	24.3	621	67.5
		7/12/13	8.25	26.8	624.9	67.9
		10/16/13	8.12	25.6	623.7	70.2
		1/8/14	8.22	24.8	620.1	70.8
		4/10/14	8.14	26	621.7	66.1
		4/10/14 DUP	8.14	26	621.7	68.2
		7/14/14	8.16	26.6	618.3	69.1
		10/10/14	7.99	26.4	621.0	66.8
		7/31/15	8.17	27.4	618.8	67.5
		7/27/16	8.12	26.3	612.6	67.9
		7/21/17	8.00	26.0	616.4	65.8
		7/23/18	8.05	26.1	614.7	70.7
		7/9/19	7.96	25.9	607.8	65.6
		7/21/20	8.07	26.7	611.7	75.7
		7/21/20 DUP	8.07	26.7	611.7	73.1
HOWARD NR	NR	3/4/08	7.06	20.4	1280	571
		5/8/08	6.95	21.0	1494	673
		7/14/08	7.00	21.1	1566	610
		10/15/08	7.00	20.6	1598	683
		1/28/09	6.82	21.0	1203	640
		1/28/09 DUP	6.82	21.0	1203	640
		4/15/09	7.02	21.5	1397	620
		7/15/09	7.16	21.5	1539	640
		10/12/09	6.89	21.4	1414	600
		1/27/10	7.35	20.0	1714	440
		1/27/10 DUP	7.35	20.0	1714	520
		4/21/10	7.16	20.8	1490	710
		7/19/10	6.94	24.6	1350	548
		10/18/10	6.47	21.4	1420	568
		1/17/11	7.12	19.8	1370	520
		4/11/11	7.20	20.6	1489	616
		8/26/11	7.11	23.2	1160	498
		10/11/11	7.1	21.0	1220	545
		10/11/11 DUP	7.1	21.0	1220	538
		2/1/12	7.29	20.6	1367	630
		4/13/12	6.99	21.2	1508	632
		9/13/12	7.12	21.9	1576	699
		10/16/12	7.06	21.1	1417	576
		2/6/13	7.06	20.3	1499	679
		4/9/13	7.38	19.4	1319	521
		7/12/13	7.40	21.6	1430	590
		10/16/13	7.15	20.3	1319	522
		1/8/14	7.24	20.3	1267	462
		4/10/14	7.23	20.6	1262	471
		7/14/14	7.18	21.1	1300	496
		7/14/14 DUP	7.18	21.1	1300	495
		10/10/14	6.93	23.2	1339	413
		7/31/15	7.16	21.9	1316	484
		7/21/17	6.98	20.1	1278	447
		7/9/19	6.90	20.1	1304	480

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
KEEFER	209744	2/6/08	7.70	19.0	378	6.8
		5/6/08	7.19	20.3	512	9
		7/16/08	7.21	21.4	539	8
		10/28/08	7.32	20.1	534	21.2
		1/28/09	7.42	19.5	356	6.1
		4/16/09	7.29	20.0	452	7.7
		7/14/09	7.35	22.1	533	7
		10/13/09	7.24	20.7	516	8.7
		1/26/10	7.15	18.8	483	7.3
		4/20/10	7.44	20.5	540.9	8.77
		7/15/10	7.50	22.2	535.8	8.84
		10/19/10	6.72	20.2	470	7.89
		1/18/11	7.45	20.6	450	7.24
		4/6/11	7.48	19.1	546.2	8.04
		7/18/11	7.19	23.2	492.3	7.79
		10/11/11	7.39	20.7	486.9	7.98
		2/6/12	7.36	20.3	482.0	6.84
		4/23/12	7.23	21.6	500	7.14
		7/17/12	7.40	21.0	500	7.29
		10/9/12	7.58	20.1	506.6	8.47
		1/10/13	7.55	19.3	466.3	6.37
		4/18/13	7.58	20	475.9	7.3
		7/11/13	7.67	20.8	485.1	7.23
		7/11/13 DUP	7.67	20.8	485.1	7.24
		10/7/13	7.53	20.6	458.9	6.39
		1/7/14	7.61	19.7	464.8	6.54
		4/9/14	7.59	20.2	473.3	6.61
		7/10/14	7.49	21.6	460.5	6.66
		10/8/14	7.32	22.3	429	6.35
		7/21/15	7.62	22.1	462.2	6.09
		7/25/16	7.42	22.2	477.9	6.81
		7/25/17	7.31	19.4	499.5	7.23
		2/23/18	7.31	19.5	472.7	6.60
		7/9/18	7.35	19.9	494.4	6.25
		1/11/19	7.26	18.4	466.2	6.59
		7/10/19	7.23	19.4	495.1	7.03
		1/17/20	7.56	18.0	486.5	7.07
		7/22/20	7.35	20.2	496.3	7.19
MARCELL	NR	8/26/11	7.12	25.1	1390	669
		9/26/11	6.63	22.1	1502	638
		11/22/11	7.29	21.0	1536	687
		2/1/12	7.42	20.8	1557	705
		4/13/12	7.15	21.8	1560	668
		7/13/12	6.86	22.3	1730	650
		10/17/12	7.18	21.3	1546	660
		10/17/12 DUP	7.18	21.3	1546	657
		2/6/13	7.25	19.8	1553	714
		2/6/13 DUP	7.25	19.8	1553	714
		4/10/13	7.07	19.9	1578	695
		7/15/13	7.09	21.4	1617	724
MCCONNELL 265	539265	2/20/08	7.21	21.1	1435	720
		5/6/08	6.77	21.6	1668	737
		7/15/08	6.91	22.3	1775	700
		10/15/08	6.82	21.3	1686	703
		1/28/09	6.85	21	1274	660
		4/15/09	7.04	21.3	1472	657
		7/15/09	7.01	22.2	1607	662
		10/12/09	6.77	21.7	1594	666
		1/26/10	6.71	21.5	1641	685
		4/22/10	6.95	20.1	1691	811
		7/21/10	6.86	23.5	1560	805
		10/18/10	6.97	22.0	1704	775
		1/19/11	7.38	20.6	1610	711
		4/8/11	7.04	19.8	1775	810
		7/12/11	6.60	23.7	1702	790
		10/11/11	7.18	21.8	1590	845
		2/7/12	7.14	20.6	1842	847
		4/11/12	6.82	21.4	1781	833
		7/6/12	6.88	22.4	1827	851
		10/8/12	7.07	20.9	1862	934
		1/10/13	6.89	20.9	1854	902
		1/10/13 DUP	6.89	20.9	1854	889
		4/18/13	7.11	20.4	1889	884
		7/10/13	7.14	22.1	1897	898
		10/14/13	7.00	21.0	1911	908
		1/8/14	7.23	20.9	1942	985
		4/14/14	6.99	20.7	1913	963
		7/14/14	6.95	21.8	1941	975
		10/7/14	6.84	22.2	1976	968
		7/31/15	7.04	21.9	1970	949
		7/20/17	6.73	20.6	1964	905

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
MCCONNELL 459	221459	7/27/12	8.25	26.5	510.0	41
		10/8/12	8.12	25.3	517.3	43.4
		1/15/13	8.06	24.5	512.6	37.4
		4/10/13	8.14	23.5	487.0	35.5
		7/10/13	8.10	25.5	480.7	34.5
		10/14/13	8.04	24.9	486.7	34.6
		1/8/14	8.20	23.7	489.4	37.1
		4/14/14	8.08	24.6	474.3	35.9
		9/9/14	8.12	25.1	465.7	33.0
		10/7/14	7.94	25.7	478.0	34.1
		7/31/15	8.13	25.9	453.6	28.5
		7/26/16	8.08	25.6	455.3	30.4
		7/20/17	7.93	24.9	449.8	32.3
		7/17/18	7.93	24.8	446.7	28.6
		7/10/19	7.90	25.0	447.9	27.2
		8/10/20	8.01	25.5	450.9	28.6
METZLER	35-71891	3/5/08	7.27	21.6	1055	317
		5/15/08	7.12	22.8	1051	329
		7/31/08	7.16	22.5	1078	317
		10/20/08	7.24	22.2	1080	305
		10/20/08 DUP	7.24	22.2	1080	326
		2/11/09	7.12	21.3	818	321
		4/20/09	7.22	23.2	845	313
		7/15/09	7.41	22.9	1031	293
		7/15/09 DUP	7.41	22.9	1031	309
		10/14/09	7.1	22.7	989	315
		2/1/10	7.22	21.7	1021	286
		5/18/10	7.56	21.0	1053	330
		7/16/10	7.20	24.1	1007	330
		10/19/10	7.15	22.6	1006	319
		1/19/11	7.55	21.1	930	298
		4/4/11	7.03	23.3	1018	323
		7/12/11	7.07	22.3	993.0	312
		10/12/11	7.27	22.1	910	301
		2/7/12	7.36	21.5	1019	326
		4/12/12	7.34	21.1	1009	320
MOORE	538847	2/20/08	7.69	22.2	362	7.1
		5/8/08	7.09	22.4	432	7.5
		7/16/08	7.34	23.0	482	9.8
		10/29/08	7.32	22.4	452	19.2
		1/29/09	7.11	21.7	328	6.6
		4/16/09	7.40	22.1	374	6.4
		7/15/09	7.44	23.3	439	5.8
		10/13/09	7.36	22.6	429	7.1
		1/26/10	7.54	19.6	423	6.3
		4/22/10	7.47	20.6	433	7.40
		7/15/10	7.44	24.1	431.3	7.54
		7/15/10 DUP	7.44	24.1	431.3	7.11
		10/19/10	6.79	22.1	430	7.14
		1/18/11	7.48	21.1	390	6.42
		4/6/11	7.39	21.4	426.3	6.70
		7/13/11	6.91	23.2	423.4	7.62
		10/11/11	7.31	22.5	419.0	7.31
		1/31/12	7.35	21.7	430	7.21
		4/23/12	7.34	22.8	470	6.99
		4/23/12 DUP	7.34	22.8	470	7.05
		7/17/12	7.36	22.9	430	7.01
		7/17/12 DUP	7.36	22.9	430	6.99
		10/8/12	7.64	21.4	433.2	7.51
		1/10/13	7.50	20.8	439.9	7.16
		4/19/13	7.68	21.6	434.7	7.25
		7/11/13	7.56	22.9	442.2	7.14
		10/7/13	7.59	21.5	431.8	6.99
		10/13/14	7.47	22.0	433	6.72
		8/3/15	7.61	22.9	446.7	7.12
		7/14/16	7.55	23.0	445.8	7.86
		7/25/17	7.28	21.1	455.5	7.98
		8/1/18	7.24	26.9	436.8	8.10
		7/9/19	6.97	22.7	443.9	6.26
		7/22/20	7.35	21.9	447.0	8.03

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NESS	509127	7/24/08	7.35	26.5	563	50.2
		10/16/08	7.47	21.4	542	48.9
		1/26/09	7.39	17.2	422	52.3
		5/11/09	7.52	28.8	472	45.9
		8/11/09	7.56	28.7	525	39.8
		11/12/09	7.53	24.5	537	51.3
		2/2/10	7.67	19.7	535	48.7
		4/21/10	7.70	23.5	518.9	42.1
		7/19/10	7.58	28.9	524.7	48.1
		1/18/11	7.49	21.8	536.6	50.1
		7/12/11	7.48	26.3	520.0	43.5
		2/3/12	7.58	21.1	538.2	49.0
		7/10/12	7.20	26.8	380	40.1
		7/10/12 DUP	7.20	26.8	380	39.2
		1/9/13	7.57	19.1	549.6	53.9
		7/8/13	7.84	27.9	539.2	46.8
		1/6/14	7.61	20.3	542.4	53.4
		7/7/14	7.60	25.3	536.6	48.3
		7/20/15	7.75	27.4	560.8	54.3
		7/11/16	7.60	28.5	545.2	49.6
		7/27/17	7.39	26.4	545.8	55.2
		7/31/18	7.42	26.4	550.7	54.1
		7/11/19	7.03	27.1	517.3	30.5
		8/14/20	7.73	28.0	538.1	46.5
NOTEMAN	212483	2/5/08	6.70	19.9	1317	310
		5/13/08	6.67	23.0	1445	272
		7/24/08	6.68	24.2	1539	274
		10/23/08	6.57	23.2	1643	356
		1/19/09	6.38	22.9	1098	322
		4/7/09	6.56	23.8	1375	303
		7/8/09	6.55	24.6	1405	260
		10/5/09	6.48	24.1	1442	281
		1/20/10	6.79	20.3	1450	289
		4/19/10	6.81	22.4	1446	307
		7/19/10	6.77	24.6	1438	309
		10/18/10	6.08	24.6	1430	280
		1/19/11	6.84	22.3	1446	266
		4/4/11	6.72	22.9	1446	276
		4/4/11 DUP	6.72	22.9	1446	279
		7/11/11	6.78	23.9	1406	272
		10/11/11	6.96	23.4	1250	286
		2/3/12	6.68	21.3	1370	301
		4/23/12	6.68	24.0	1580	291
		7/9/12	6.57	24.7	1360	265
		7/9/12 DUP	6.57	24.7	1360	265
		10/4/12	6.80	23.6	1412	287
		1/17/13	6.69	23.3	1417	288
		4/8/13	6.90	22.3	1409	280
		7/9/13	6.89	24.3	1400	278
		10/14/13	6.75	23.2	1528	355
		1/10/14	6.83	22.2	1440	311
		4/10/14	6.84	23.2	1426	301
		7/7/14	6.80	23.2	1423	289
		12/10/14	6.66	22.8	1528	366
		7/23/15	6.87	24.1	1424	287
		7/15/16	6.79	23.9	1412	257
		7/27/17	6.57	22.9	1383	265
		7/24/19	6.61	22.6	1359	235
NOTEMAN HOUSE	212483	2/3/12	7.06	13.5	1520	324
NSD-02	527587	2/5/08	ND	ND	ND	43
		7/7/08	8.02	21.0	609.00	44
NSD-03	527586	2/5/08	ND	ND	ND	70.7
		7/7/08	7.64	21.0	570.00	58.9

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-02	562944	10/27/08	7.47	22.2	438	5.1
		2/12/09	7.58	21.6	330	6.6
		4/23/09	7.39	23.8	373	6.4
		7/21/09	7.62	23.9	408	5
		10/21/09	7.32	22.6	436	6.8
		2/3/10	7.68	19.6	423	8.5
		4/21/10	7.57	22.1	413	7.26
		7/20/10	7.36	23.7	412.5	6.87
		10/19/10	7.42	22.5	416.2	7.39
		1/18/11	7.47	23.2	390	6.43
		4/6/11	7.27	22.9	413.5	6.4
		7/15/11	7.03	22.5	416.3	7.24
		10/13/11	7.45	21.9	370	7.31
		1/30/12	7.39	21.2	431.3	7.78
		4/25/12	7.42	22.4	370	8.42
		7/18/12	7.33	22.5	430	6.99
		10/10/12	7.58	21.7	423.9	7.46
		1/10/13	7.58	21.8	396.4	9.02
		4/17/13	7.64	21.2	426.2	7.52
		7/12/13	7.65	22.0	429.3	6.91
		10/10/13	7.49	21.2	433.4	7.05
		10/10/13 DUP	7.49	21.2	433.4	7.14
		1/13/14	7.6	21.2	426.7	7.03
		4/7/14	7.59	21.3	432.9	7.34
		7/10/14	7.57	22.0	431.6	7.65
		10/13/14	7.48	23.1	424	7.04
		2/12/15	7.42	21.0	436	7.11
		7/30/15	7.62	22.2	436.2	6.31
		1/12/16	7.81	20.2	421.5	6.17
		7/26/16	7.54	21.4	434.4	6.81
		1/26/17	7.41	21.0	421.2	6.81
		7/18/17	7.29	21.0	435.8	7.15
		1/16/18	7.39	20.8	427.3	6.76
		7/18/18	7.34	20.7	435.3	6.50
		1/7/19	7.39	20.6	430.6	7.07
		7/9/19	7.14	21.4	442.2	5.75
		1/16/20	7.55	20.5	430.6	7.83
		7/22/20	7.47	21.3	437.9	8.15
NWC-03	203321	3/4/08	ND	ND	ND	560
		6/9/08	ND	ND	ND	524
		10/27/08	7.07	21.9	1374	489
		2/12/09	7.06	20.2	1023	412
		4/23/09	6.98	21.9	1129	466
		4/23/09 DUP	6.98	21.9	1129	460
		7/21/09	7.21	22.9	1194	458
		10/21/09	6.94	21.8	1224	444
		2/3/10	7.24	20.7	1214	444
		4/21/10	7.22	21.6	1178	433
		7/20/10	7.04	22.8	1229	477
		10/19/10	7.22	21.3	1172	432
		1/18/11	7.09	22.8	1120	386
		4/6/11	7.19	21.7	1114	361
		7/15/11	6.91	21.8	1094	386
		10/13/11	7.23	21.6	960	353
		1/30/12	7.15	21.5	1061	379
		4/25/12	7.17	21.6	920	346
		4/25/12 DUP	7.17	21.6	920	347
		7/18/12	7.05	22.1	1080	354
		10/10/12	7.31	21.1	1029	354
		10/10/12 DUP	7.31	21.1	1029	353
		1/10/13	7.18	20.8	1051	370

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-04	551849	3/4/08	ND	ND	ND	240
		6/9/08	ND	ND	ND	231
		10/27/08	7.32	25.0	856	162
		1/22/09	7.23	22.9	688	184
		2/12/09	7.20	19.8	699	181
		2/12/09 DUP	7.20	19.8	699	198
		3/11/09	7.15	23.4	846	197
		4/23/09	7.21	24.1	797	188
		5/28/09	7.01	24.1	933	210
		6/24/09	6.93	25.6	792	169
		7/21/09	7.48	24.3	859	193
		8/19/09	7.12	24.5	906	183
		9/23/09	7.16	23.8	953	202
		10/21/09	7.18	24.3	875	191
		11/18/09	7.24	22.9	909	191
		12/16/09	7.28	22.3	926	193
		2/3/10	7.49	22.3	844	167
		3/8/10	7.33	22.5	880	182
		4/21/10	7.34	22.8	913	218
		5/18/10	7.68	25.8	901.3	210
		6/15/10	7.31	24.5	917.5	212
		7/20/10	7.28	28.3	873.2	188
		8/25/10	7.55	24.8	820.9	196
		9/29/10	7.38	24.5	920.2	205
		10/19/10	7.34	23.6	870.2	195
		11/4/10	7.53	23.9	853.2	197
		12/14/10	7.41	23.6	856.8	182
		1/18/11	7.31	24.1	860	194
		2/17/11	7.46	22.3	848.6	169
		3/17/11	7.44	24.1	888.1	182
		4/5/11	7.32	23.4	878.7	196
		5/11/11	7.32	23.1	868.1	175
		6/17/11	7.28	23.7	856.3	204
		7/15/11	7.06	23.5	875.1	202
		8/25/11	7.32	25.1	780	195
		9/26/11	6.56	26.2	875.4	198
		9/26/11 DUP	6.56	26.2	875.4	199
		10/13/11	7.46	23.3	770	198
		11/22/11	7.36	22.9	853.5	201
		12/8/11	7.33	22.3	872.2	207
		1/30/12	7.34	23.4	914.4	217
		2/17/12	7.45	22.9	898.1	203
		3/15/12	7.39	23.9	888.2	207
		4/25/12	7.16	23.4	870	204
		5/22/12	7.25	23.9	970	178
		5/22/12	7.25	23.9	970	178
		6/6/12	7.27	24.4	1040	195
		7/18/12	7.25	23.7	880	205
		8/28/12	7.49	24.2	893.3	208
		9/13/12	7.40	23.9	883.7	205
		10/10/12	7.48	23.2	883.6	207
		11/13/12	7.56	21.7	849.8	211
		12/3/12	7.40	23.0	898.6	208
		1/10/13	7.37	22.2	903.1	210
		2/7/13	7.54	23.0	917.5	228
		3/7/13	7.49	22.4	892.4	222
		4/17/13	7.43	22.6	903.8	223
		5/14/13	7.53	23.2	881.7	214
		6/5/13	7.29	33.9	862.7	201
		7/12/13	7.29	23.5	897.2	211
		7/12/13 DUP	7.29	23.5	897.2	200
		8/9/13	7.43	23.5	898.6	207
		9/5/13	7.56	23.8	893.6	214
		10/10/13	7.39	22.6	873.7	197
		11/6/13	7.58	21.8	852.3	202
		12/3/13	7.50	23.1	843.4	199
		1/13/14	7.12	21.9	885.6	197
		2/5/14	7.46	22.4	833.3	198
		3/5/14	7.59	22.8	813.3	168
		4/7/14	7.49	22.9	834.2	187
		5/13/14	7.56	23.4	819.8	186
		6/23/14	7.62	24.5	806.7	188
		7/10/14	7.57	23.8	826.2	194

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
NWC-04	551849	8/11/14	7.59	23.5	824.0	187
		9/9/14	7.50	24.0	789.5	163
		10/13/14	7.39	24.5	802	175
		11/14/14	7.46	22.9	835.4	183
		12/10/14	7.33	23.3	840.7	189
		2/12/15	7.81	20.3	856.4	177
		4/9/15	7.41	24.6	823.2	182
		7/30/15	7.60	24.5	935.6	195
		10/6/15	7.54	23.2	866.8	225
		1/12/16	7.57	22.7	811.2	188
		4/5/16	7.47	23.9	847.7	192
		7/26/16	7.45	23.8	907.3	187
		11/2/16	7.32	23.0	900.6	181
		1/26/17	7.41	23.1	851.9	195
		4/6/17	7.33	23.2	846.8	176
		7/18/17	7.23	23.9	844.7	201
		11/14/17	7.31	23.3	860.1	193
		1/16/18	7.30	23.4	809.6	181
		5/2/18	7.41	23.7	854.1	192
		7/18/18	7.32	23.2	863.5	195
		10/16/18	7.40	23.6	850.1	210
		10/16/18 DUP	7.40	23.6	850.1	210
		1/7/19	7.38	24.0	848.3	196
		5/14/19	7.39	23.9	845.5	190
		5/14/19 DUP	7.39	23.9	845.5	190
		7/9/19	7.06	24.9	857.2	195
		10/15/19	7.38	24.3	855.4	195
		1/16/20	7.59	23.3	863.1	199
		7/22/20	7.34	25.0	861.3	200
		11/23/20	7.49	24.1	913.5	182
NWC-06	575700	6/9/08	ND	ND	ND	7.2
		10/27/08	7.35	23.3	414	6.4
		2/12/09	7.54	21.8	306	8
		4/23/09	7.30	24.5	354	7.3
		7/21/09	7.63	23.5	388	6.4
		10/21/09	7.26	23.2	413	8
		2/3/10	7.61	20.5	404	7.5
		2/3/10 DUP	7.61	20.5	404	7.4
		4/21/10	7.54	22.4	387	8.49
		7/20/10	7.33	26.0	388.6	8.59
		10/19/10	7.49	22.7	394.5	8.32
		1/18/11	7.45	23.4	380	8.24
		4/6/11	7.42	23.1	388.3	7.76
		4/6/11 DUP	7.42	23.1	388.3	7.73
		7/15/11	7.09	22.9	394.3	8.36
		10/13/11	7.51	22.3	340	8.48
		1/30/12	7.47	22.1	402.7	8.44
		4/25/12	7.34	22.5	410	7.11
		7/18/12	7.39	22.8	380	8.60
		10/10/12	7.62	21.9	393.6	9.33
		1/10/13	7.47	21.3	429.2	7.55
		4/17/13	7.66	21.1	404.1	8.82
		7/12/13	7.59	22.4	404.1	8.40
		10/10/13	7.56	21.6	403.3	8.38
		1/13/14	7.64	21.3	401.8	8.78
		4/7/14	7.65	21.7	403.7	8.62
		7/10/14	7.68	22.4	405.9	8.97
		7/10/14 DUP	7.68	22.4	405.9	8.99
		10/13/14	7.59	23.4	393	8.51
		2/12/15	7.60	21.2	405	8.12
		2/12/15 DUP	7.60	21.2	405	8.09
		7/30/15	7.66	22.6	406.5	8.20
		1/12/16	7.74	20.7	397.5	8.50
		7/26/16	7.58	21.8	409.1	8.69
		1/26/17	7.42	21.3	394.0	8.64
		7/18/17	7.35	21.4	405.6	8.35
		1/16/18	7.45	21.1	400.4	8.85
		7/18/18	7.38	21.2	407.2	8.35
		1/7/19	7.42	21.0	405.1	8.54
		7/9/19	7.09	22.0	411.3	6.99
		1/16/20	7.51	20.8	403.5	8.74
		7/22/20	7.47	21.9	412.0	8.75
OLMOS	224745	1/13/16	7.61	20.4	421.0	8.04
		7/14/16	7.58	22.5	445.9	7.97
		7/25/17	7.29	20.6	434.7	8.25
		7/13/18	7.31	20.6	446.1	7.58
		7/13/18 DUP	7.31	20.6	446.1	7.46
		7/8/19	7.07	21.5	429.7	6.55
		7/8/19 DUP	7.07	21.5	429.7	7.78
		8/5/20	7.20	21.3	438.3	7.52

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
OSBORN	643436	2/25/08	7.35	22.4	508	16.4
		5/13/08	7.22	22.2	576	17.2
		7/22/08	7.24	22.9	618	17.7
		7/22/08 DUP	7.24	22.9	618	17.5
		10/16/08	7.39	22.4	595	15.9
		1/20/09	7.33	22.4	469	16
		4/7/09	7.25	24.0	542	17
		8/18/09	7.16	24.6	643	17.4
		10/5/09	7.14	22.9	599	17.9
		1/21/10	7.47	19.5	591	15.6
		4/19/10	7.60	21.5	601.9	19.3
		7/12/10	7.69	24.2	594.0	18.4
		7/12/11	7.87	29.8	575.9	19.5
		2/3/12	8.15	15.3	390	19.2
		1/8/13	7.88	10.5	544.4	20.4
		7/8/13	7.56	39.2	510.3	19.2
		1/10/14	7.89	18.1	580.5	18.7
		7/7/14	7.84	29.2	496.3	18.0
		7/11/16	7.56	37.8	515.4	18.6
		7/31/17	7.74	25.6	548.4	19.3
		7/31/17 DUP	7.74	25.6	548.4	18.7
PALMER	578819	2/14/08	7.91	17.5	435	15.9
		5/13/08	7.92	22.9	508	16.6
		7/22/08	7.64	25.8	548	16.2
		10/16/08	7.61	17.0	527	15.9
		1/20/09	7.33	19.4	441	14.3
		4/8/09	7.65	19.1	475	15.4
		7/8/09	7.47	27.2	521	14.3
		10/5/09	7.81	22.2	538	16.2
		1/20/10	7.72	11.9	510	13.8
		4/22/10	7.97	13.6	520	16.7
		7/12/10	7.62	30.2	518.8	15.7
		10/18/10	8.13	22.1	511.9	16.5
		1/18/11	7.24	17.1	517.0	15.7
		4/5/11	8.04	19.0	499.2	15.8
		7/12/11	7.65	26.6	517.6	16.4
		10/11/11	7.85	22.0	510.4	17
		2/3/12	7.94	10.0	521.4	17.1
		4/11/12	7.52	18.7	519.8	17.3
		7/10/12	7.30	27.9	390	16.6
		10/3/12	8.09	25.7	526.7	17.6
		10/3/12 DUP	8.09	25.7	526.7	17.5
		1/9/13	7.9	17.5	532.8	16.8
		4/8/13	8.07	18.4	534.1	17
		7/17/13	7.74	22.3	531.0	17.2
		10/14/13	8.03	20.1	533.1	16.9
		1/6/14	7.82	11.9	517.4	17.4
		4/7/14	7.96	18.3	534.8	17.3
		7/7/14	8.07	23.9	534.4	18.3
		10/23/14	7.86	19.6	536.0	17.5
		7/20/15	7.95	25.9	540.1	17.6
		7/31/18	7.65	29.6	534.8	17.1
		7/11/19	8.16	28.0	538.6	16.7
		8/14/20	7.75	26.5	534.8	16.3
		8/14/20 DUP	7.75	26.5	534.8	16.3

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
PANAGAKOS	35-76413	4/21/08	6.80	20.5	1228	410
		7/21/08	6.95	21.9	1390	444
		10/13/08	6.86	21.2	1386	480
		10/13/08 DUP	6.86	21.2	1386	500
		1/22/09	6.92	19.7	997	397
		4/9/09	6.81	21.7	1228	431
		4/9/09 DUP	6.81	21.7	1228	426
		7/9/09	6.89	22.3	1469	490
		10/6/09	6.83	21.1	1328	472
		1/21/10	7.06	18.8	1291	318
		4/20/10	7.25	21.0	1528	608
		7/20/10	6.90	24.0	1560	706
		10/18/10	6.38	22.1	1530	568
		7/14/11	6.93	23.3	1070	223
		8/25/11	7.17	23.4	1170	222
		2/6/12	6.98	20.8	1017	166
		2/29/12	7.09	20.3	1080	362
		3/15/12	7.02	21.4	1138	282
		4/12/12	6.90	20.9	1265	346
		4/12/12 DUP	6.90	20.9	1265	352
		7/9/12	6.82	22.2	1140	292
		11/27/12	7.51	20.1	1164	274
		2/6/13	7.05	19.9	1054	212
		4/9/13	7.24	19.7	1105	232
		7/10/13	7.26	21.4	1218	329
		10/15/13	7.14	20.5	1109	240
		1/10/14	7.23	19.6	1079	227
		4/16/14	7.17	20.4	1103	228
		7/17/14	7.13	21.4	1357	467
		10/16/14	6.9	22.1	1104	193
		1/26/15	7.11	19.6	1349	428
		7/27/15	7.03	22.2	1445	469
		1/11/16	7.18	18.9	1402	443
		1/11/16 DUP	7.18	18.9	1402	452
		2/24/17	7.19	19.1	1270	218
		2/24/17 DUP	7.19	19.1	1270	217
		7/17/17	7.13	20.2	1219	232
		1/18/18	7.08	19.0	1151	223
		1/18/18 DUP	7.08	19.0	1151	226
		7/30/18	6.96	20.5	1389	384
		1/15/19	6.91	18.5	1464	444
		7/8/19	6.90	21.4	1480	467
		7/8/19 DUP	6.90	21.4	1480	476
		1/14/20	7.29	17.7	1450	457
		1/14/20 DUP	7.29	17.7	1450	461
		8/13/20	7.21	20.6	1254	231
PARRA	576415	2/11/08	7.08	21.8	1067	360
		5/15/08	7.10	21.8	1200	405
		7/31/08	7.00	22.4	1248	423
		7/31/08 DUP	7.00	22.4	1248	404
		10/20/08	7.07	22.9	1246	387
		2/13/09	7.24	22.1	965	405
		4/20/09	7.10	22.6	971	372
		7/20/09	7.17	23.9	1174	375
		10/20/09	6.80	22.5	1188	388
		2/1/10	7.07	21.5	1197	353
		4/22/10	6.91	20.3	1219	417
		7/14/10	7.13	22.2	1201	403
		7/14/10 DUP	7.13	22.2	1201	391
		10/20/10	7.51	21.4	1270	411
		1/19/11	7.49	20.8	1130	391
		4/4/11	6.90	22.6	1207	382
		7/12/11	6.76	23.7	1156	404
		10/12/11	7.44	22.3	1070	406
		2/7/12	7.64	21.4	1212	428
		4/13/12	7.49	21.1	1204	402
		4/13/12 DUP	7.49	21.1	1204	390
		7/18/12	7.03	22.6	1210	418
		7/18/12 DUP	7.03	22.6	1210	419
		10/9/12	7.30	21.3	1209	428
		1/11/13	7.64	20.3	1217	413
		4/11/13	7.29	21.2	1206	427
		7/17/13	7.21	21.9	1212	411
		10/18/13	7.18	21.3	1212	406
		1/8/14	7.21	20.8	1221	437
		4/15/14	7.18	21.5	1213	416
		7/21/14	7.30	22.4	1193	432
		10/6/14	7.12	21.5	1133	413
		8/3/15	7.24	22.3	1193	391
		7/22/16	7.17	22.6	1151	392
		7/25/17	6.98	20.9	1194	426
		7/10/19	6.83	21.6	1170	382

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
PIONKE 395	613395	2/6/08	7.53	19.9	910	394
		5/7/08	7.08	21.4	1100	391
		7/17/08	6.99	21.9	1209	420
		10/27/08	7.03	20.8	1175	460
		1/29/09	7.13	19.9	847	385
		4/14/09	7.58	20.7	1053	411
		7/13/09	7.35	21.5	1165	472
		10/7/09	7.43	21.1	1100	403
		3/8/10	7.72	18.6	1201	406
		4/26/10	7.22	21.9	1224	438
		7/15/10	7.32	22.3	1158	474
		10/18/10	7.33	21.3	1277	473
		10/18/10 DUP	7.33	21.3	1277	487
		1/19/11	7.32	19.9	1222	471
		4/8/11	7.13	19.2	1232	467
		7/12/11	7.30	23.8	1226	500
		10/11/11	6.98	20.8	1100	502
		2/1/12	7.25	17.5	1230	481
		2/1/12 DUP	7.25	17.5	1230	495
		4/12/12	7.17	22.1	1218	508
		7/11/12	6.59	22.9	1280	439
		10/17/12	7.16	22.3	1136	419
PIONKE 517	221517	9/18/12	7.91	23.4	395.8	14
		10/11/12	7.75	22.8	394.7	14.9
		1/9/13	7.79	22.6	389.9	14.3
		4/17/13	7.74	22.1	391.9	14.6
		7/16/13	7.84	22.9	391.5	13.9
		10/17/13	7.73	22.7	391.5	13.8
		2/5/14	7.75	21.5	394.2	14.9
		4/9/14	7.71	22.9	400.9	14.0
		7/11/14	7.76	23.7	388.9	14.6
		10/7/14	7.46	25.8	406	14.0
		7/22/15	7.79	23.3	392.1	13.9
		7/26/16	7.67	23.2	389.2	14.1
		7/18/17	7.44	22.5	388.7	13.2
		7/24/18	7.53	22.3	385.7	13.4
		7/11/19	7.19	23.0	393.7	13.4
		8/12/20	7.48	22.8	393.1	13.2
POOL	509518	2/20/08	7.95	20.9	497	134
		5/19/08	7.40	22.2	585	122
		7/31/08	7.47	22.3	599	117
		10/21/08	7.51	21.4	598	120
		2/13/09	7.62	20.8	473	141
		4/21/09	7.73	22.6	470	124
		7/20/09	7.76	22.9	579	122
		10/20/09	7.22	21.2	577	122
		2/24/10	7.56	22.4	577	110
		4/22/10	7.75	20.2	606.5	130
		7/14/10	7.38	21.7	580.9	117
		10/20/10	7.79	21.3	620	115
		1/20/11	7.71	20.5	530	112
		1/20/11 DUP	7.71	20.5	530	114
		4/6/11	7.37	21.6	567.4	114
		8/1/18	7.47	24.2	580.9	113
		7/10/19	6.78	29.1	588.6	118
		8/10/20	7.40	25.6	581.5	108
POWER	624535	2/12/08	7.11	18.9	428	15.5
		7/22/08	7.10	21.7	795	20.2
POWER 639	222639	1/16/14	7.38	20.9	1004	234
		2/5/14	7.35	20.8	1004	328
		3/5/14	7.39	21.3	991.4	187
		4/15/14	7.38	21.6	999.4	249
		5/13/14	7.40	21.4	990.9	206
		6/23/14	7.44	21.9	886.4	117
		7/17/14	7.40	22.1	861.3	168
		8/11/14	7.50	21.8	864.9	136
		9/9/14	7.49	21.7	850.4	105
		1/27/15	7.27	22.0	922	291
		3/10/15	7.35	21.9	1032	265
		4/28/15	7.43	20.6	1002	308
		5/14/15	7.32	21.3	991.4	269
		6/11/15	7.26	22.0	1019	308
		7/30/15	7.33	22.3	1014	287
		1/14/16	7.46	19.7	985.7	298
		7/27/16	7.27	22.2	992.0	301
		1/26/17	7.14	20.9	989.9	317
		7/12/17	7.16	20.8	1010	244
		1/10/18	7.25	20.7	856.9	191
		7/25/18	7.35	20.8	814.9	205
		1/14/19	7.20	20.6	828.4	174
		7/12/19	7.16	21.7	510.4	90.8
		1/15/20	7.47	20.5	748.9	180
		8/13/20	7.37	21.7	753.5	173

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
RAMIREZ	216425	2/4/08	7.47	21.7	408	7.6
		5/6/08	7.19	22.7	405	8.3
		7/17/08	7.32	24.5	439	8.8
		10/27/08	7.41	22.2	412	7.3
		1/29/09	7.24	22.2	301	8.3
		4/16/09	7.49	22.4	344	7.6
		7/10/09	7.52	23.9	411	6.4
		10/6/09	7.30	23.8	388	8.4
		1/25/10	7.48	22.4	390	7.8
		4/21/10	7.45	22.6	397	9.04
		7/21/10	7.38	25.1	420	8.98
		10/19/10	7.91	23.7	450	10.8
		1/18/11	7.52	23.1	380	8.18
		4/11/11	7.24	23.2	408.5	8.65
		7/18/11	7.27	25.4	402.6	8.44
		10/12/11	7.40	23.3	412.7	8.55
		1/30/12	7.38	22.3	412.2	8.80
		4/10/12	7.40	23.2	404.5	8.70
		7/6/12	7.32	24.2	415.7	8.97
		10/8/12	7.61	22.5	412.0	9.14
		10/8/12 DUP	7.61	22.5	412.0	9.07
		1/17/13	7.52	22.2	409.6	8.82
		4/19/13	7.6	22.1	413.9	8.63
		7/15/13	7.58	23.6	416.2	8.19
		10/7/13	7.68	22.6	412.7	8.37
		1/13/14	7.63	21.9	409.8	8.79
		4/14/14	7.55	22.2	417.5	8.67
		7/10/14	7.58	23.2	413.5	8.92
		10/17/14	7.36	23	422.0	8.67
		7/21/15	7.54	23.7	414.6	8.46
		7/14/16	7.55	23.6	420.5	8.57
		7/26/17	7.37	22.0	414.5	9.00
		7/25/18	7.35	22.1	420.2	8.35
		7/9/19	6.95	22.8	432.8	6.67
		8/6/20	7.31	22.6	423.1	7.96
RAY	803772	2/15/08	7.30	19.1	1540	159
		4/21/08[1]	6.92	21.3	1418	125
		5/13/08[1]	7.05	20.9	1418	123
		6/23/08[1]	6.87	21.1	1593	130
		7/29/08[1]	6.98	21.8	1411	120
		8/28/08[1]	M	21.1	1519	129
		9/23/08[1]	6.90	22.2	1519	125
		10/22/08	6.96	20.8	1604	145
		1/20/09	6.92	20.6	1355	88
		4/8/09	6.85	21.4	1759	178
		7/9/09	6.93	22.3	1434	126
		10/7/09	6.98	21.3	1288	127
		1/26/10	6.82	20.6	1352	125
		4/20/10	7.14	21.5	1318	134
		7/14/10	7.11	23.8	1313	137
		10/20/10	7.14	19.6	1368	127
		1/17/11	7.04	20.8	1451	132
		1/17/11 DUP	7.04	20.8	1451	125
		4/5/11	7.03	20.8	1387	132
		7/11/11	7.07	22.8	1345	126
		10/12/11	7.06	21.6	1250	130
		1/31/12	7.28	20.5	1360	131
		4/11/12	7.03	20.6	1359	131
		7/6/12	7.11	22.1	1430	129
		10/3/12	7.12	21.1	1464	130
		1/17/13	7.05	19.5	1527	126
		1/17/13 DUP	7.05	19.5	1527	140
		4/8/13	7.32	20	1476	131
		7/9/13	7.18	21.4	1451	128
		10/15/13	7.13	20.8	1487	135
		1/14/14	7.25	19.2	1433	133
		4/8/14	7.09	20.8	1502	146
		7/8/14	7.14	21.4	1409	147
		10/22/14	6.88	21.6	1422	147
		8/3/15	7.22	21.4	1360	133
		7/12/16	7.03	21.6	1419	133
		7/26/17	6.93	19.8	1288	142
		7/31/18	6.89	19.8	1493	138
		7/31/18 DUP	6.89	19.8	1493	139
		7/19/19	6.86	19.7	1465	132
		8/13/20	6.80	20.5	1362	136

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
ROGERS 596	573596	10/19/09	6.89	23.3	1360	590
		11/5/09	6.79	21.9	1418	540
		2/25/10	6.99	19.6	1603	520
		4/22/10	7.21	18.2	1641	710
		1/18/18	6.85	18.9	1431	655
		7/26/18	6.85	22.9	1644	735
		1/14/19	6.83	17.9	1651	757
		7/22/19	6.84	25.9	1714	835
		1/22/20	6.68	19.4	1621	831
		8/11/20	6.86	23.1	1518	666
ROGERS 803	641803	2/7/08	7.45	18.6	601	138
		4/21/08[1]	7.32	21.4	552	128
		5/8/08[1]	7.14	21.2	622	141
		6/23/08[1]	7.06	22.9	660	129
		7/29/08[1]	6.78	23.1	339	134
		8/28/08[1]	7.18	21.6	635	128
		9/23/08[1]	7.24	21.9	599	133
		10/22/08	7.36	21.3	650	144
		2/10/09	7.42	17.9	475	141
		4/29/09	7.52	21.9	506	211
		8/3/09	7.39	24.2	674	150
		7/16/10	7.46	23.9	643.4	169
		10/19/10	7.32	21.1	643.8	154
		10/19/10 DUP	7.32	21.1	643.8	154
		1/20/11	7.44	18.1	610	143
		4/8/11	7.30	20.2	658.2	160
		7/14/11	7.12	23.5	653.5	166
		10/12/11	7.41	21.8	665.3	175
		1/30/12	7.40	20.0	580	171
		4/23/12	7.32	23.9	720	166
		7/13/12	7.26	24.0	820	171
		7/13/12 DUP	7.26	24.0	820	166
		10/10/12	7.41	24.3	671.4	177
		1/15/13	7.37	16.9	681.1	174
		4/15/13	7.57	23.8	698	190
		7/15/13	7.39	23.6	697.8	184
		10/16/13	7.47	25.4	710.6	185
		1/9/14	7.46	21.4	701.8	190
		4/11/14	7.52	26.1	711.3	190
		7/18/14	7.48	24.9	709.2	192
		9/30/17	7.03	21.5	1396	572
ROGERS E	216018	2/4/08	7.40	21.0	435	4.6
		5/7/08	7.18	22.2	415	5.9
		7/17/08	7.28	23.0	446	7.1
		10/27/08	7.38	21.4	434	15.7
		2/10/09	7.51	20.7	322	5.4
		4/16/09	7.48	22.0	361	4.9
		7/13/09	7.34	22.6	420	3.8
		10/6/09	7.31	22.3	407	5.8
		1/25/10	7.52	20.6	414	5.1
		4/21/10	7.44	21.1	421	6.04
		7/21/10	7.37	23.8	430	6.47
		10/19/10	7.80	22.8	460	5.92
		1/18/11	7.39	21.5	390	5.50
		4/11/11	7.19	22.7	427.2	6.13
		7/18/11	7.12	24.3	418.5	6.00
		10/13/11	7.52	22.2	370	5.99
		1/30/12	7.38	20.8	427.2	6.22
		4/10/12	7.37	22.1	421.8	6.31
		7/17/12	7.32	22.7	420	5.85
		10/17/12	7.55	21.7	429.0	6.04
		1/17/13	7.46	21.5	431.5	6.01
		4/18/13	7.63	21.3	433.5	6.26
		7/17/13	7.59	22.1	427.7	6.05
		7/17/13 DUP	7.59	22.1	427.7	6.28
		10/10/13	7.51	21.9	436.9	5.8
		1/7/14	7.49	21.0	434.0	6.24
		4/14/14	7.59	21.4	431.2	6.11
		7/10/14	7.54	22.4	428.5	6.41
		10/17/14	7.31	22.6	452	5.81
		7/30/15	7.57	22.9	430.3	5.90
		7/14/16	7.58	22.7	430.2	6.71
		7/26/17	7.31	21.3	429.3	6.86
		2/23/18	7.32	21.0	423.0	6.20
		7/13/18	7.33	20.8	430.3	6.32
		1/11/19	7.27	20.6	418.5	6.51
		7/12/19	7.31	20.8	429.5	6.76
		1/20/20	6.77	21.1	432.8	6.30
		8/7/20	7.35	21.5	431.2	6.62

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
RUIZ	531770	2/5/08	7.73	18.2	445	263
		5/15/08	7.23	25.9	965	265
		7/30/08	6.99	22.1	999	243
		10/20/08	7.04	22.0	995	238
		2/12/09	6.94	20.9	748	254
		4/21/09	7.18	22.3	759	227
		8/3/09	7.05	22.9	1029	221
		10/28/09	7.09	20.6	920	227
		2/1/10	7.08	20.9	934	236
		4/26/10	7.01	22.5	920.1	240
		7/20/10	7.08	22.5	880	240
		10/20/10	7.52	20.7	970	231
		1/18/11	7.19	20.2	860	213
		4/8/11	7.09	19.8	923.3	236
		8/26/11	6.85	22.6	800	220
		10/13/11	7.19	21.5	810	230
		2/7/12	7.28	20.7	915.6	230
		2/7/12 DUP	7.28	20.7	915.6	228
		4/13/12	7.04	21.1	896.5	203
		7/18/12	6.87	21.6	900	214
		10/9/12	7.18	21.4	890.6	229
		1/11/13	7.21	20.7	895.8	219
		1/11/13 DUP	7.21	20.7	895.8	211
		4/11/13	7.26	21.9	876.8	229
		7/25/13	7.13	21.4	887.3	228
		10/17/13	7.23	20.8	891.9	210
		1/8/14	7.32	20.5	886.8	220
		4/15/14	7.26	21.2	873.5	215
		8/11/14	7.32	21.2	869.2	221
		10/21/14	7.09	21.4	886	209
		10/21/14 DUP	7.09	21.4	886	212
		1/27/15	7.14	21.4	853	215
		7/30/15	7.2	21.9	865.8	191
		1/12/16	7.29	19.9	831.3	190
		7/25/16	7.17	21.2	854.5	183
		1/26/17	7.09	20.4	844.2	194
		7/25/17	7.06	20.5	850.8	190
		1/16/18	7.03	20.1	829.4	185
		7/24/18	7.02	20.7	827.2	180
		1/15/19	7.00	19.8	824.6	170
		7/10/19	6.86	20.9	828.4	169
		1/16/20	7.20	19.6	809.9	176
RUIZ 146	232146	8/12/20	7.12	22.1	673.5	117

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
SCHWARTZ	210865	2/8/08	7.52	21.5	506	158
		4/21/08[1]	7.23	21.7	563	122
		5/19/08[1]	7.38	22.4	629	130
		6/23/08[1]	7.02	22.1	674	129
		7/29/08[1]	7.25	22.4	955	245
		8/28/08[1]	M	22.3	669	131
		9/23/08[1]	7.27	22.2	607	124
		10/22/08[1]	7.31	22.0	653	135
		11/19/08[1]	7.38	21.1	612	140
		12/17/08[1]	6.78	21.6	472	144
		1/29/09[1]	7.08	22.0	475	124
		2/23/09[1]	7.33	22.1	610	123
		4/17/09	7.46	22.2	520	120
		7/10/09	7.52	22.8	651	116
		7/10/09 DUP	7.52	22.8	651	117
		10/6/09	7.27	22.5	613	120
		1/22/10	7.79	19.5	664	133
		4/21/10	7.50	20.9	638	129
		7/21/10	7.43	22.0	650	134
		10/19/10	7.76	21.2	710	147
		1/17/11	7.15	21.2	620	116
		4/11/11	7.20	21.5	656.9	128
		7/18/11	7.36	23.7	612.4	116
		10/12/11	7.35	22.4	635.8	124
		2/6/12	7.32	21.3	629.7	116
		2/6/12 DUP	7.32	21.3	629.7	114
		4/10/12	7.48	21.6	626.1	120
		7/16/12	7.31	21.9	710	117
		10/17/12	7.48	21.6	645	121
		3/13/13	7.57	20.7	623.6	118
		5/14/13	7.61	21.5	629.7	112
		7/15/13	7.49	22.1	770.2	198
		10/14/13	7.55	20.9	633.3	109
		1/13/14	7.61	20.6	663.1	125
		4/9/14	7.48	21.5	635.9	110
		7/18/14	7.45	21.8	790.5	216
		10/22/14	7.28	22	646.0	119
		2/3/15	7.35	22.4	714	125
		2/3/15 DUP	7.35	22.4	714	126
		8/4/15	7.49	22.5	641.8	109
		1/14/16	7.55	20.6	678.3	134
		7/27/16	7.51	22.3	621.3	103
		7/27/16 DUP	7.51	22.3	621.3	102
		1/24/17	7.33	20.3	650.6	120
		7/11/17	7.29	20.6	627.0	103
		7/11/17 DUP	7.29	20.6	627.0	102
		1/9/18	7.26	20.5	619.5	97.2
		7/11/18	7.33	20.4	622.9	96.2
		1/9/19	7.24	20.4	671.2	131
		1/22/20	6.86	21.0	721.7	155
		7/22/20	7.26	21.2	686.1	138
SRC	211345	4/23/08	7.57	25.8	380	19
		8/5/08	7.40	27.2	452	15.4
SWAN	NR	2/13/08	7.28	20.7	467	24.1
		5/14/08	7.24	21.2	479	23.7
		7/24/08	7.35	22.4	506	18
		10/16/08	7.32	20.7	488	19
		1/20/09	7.05	20.4	391	19.8
		4/7/09	7.21	21.5	447	19.9
		7/8/09	7.18	23.1	473	18.5
		10/5/09	7.18	21.4	496	19.7
		1/21/10	7.49	19.5	501	18.4
		4/21/10	7.42	20.3	512.1	20.9
		7/19/10	7.13	23.8	518.6	22.2
		1/18/11	7.19	17.8	483.6	18.7
		7/12/11	7.05	22.4	478.2	19.1
		2/3/12	7.40	20.5	484.5	20.1
		2/3/12 DUP	7.40	20.5	484.5	19.5
		7/10/12	7.00	22.7	370	19.4
		1/11/13	7.38	20.0	489.0	19.3
		7/8/13	7.45	22.8	489.7	19.4
		1/10/14	7.65	19.7	428.6	19.2
		7/714	7.44	21.8	464.7	19.4
		7/20/15	7.45	23.0	491.2	18.8
		7/20/15 DUP	7.45	23.0	491.2	18.9
		7/11/16	7.30	22.6	504.7	18.6
		7/27/17	7.13	20.9	500.8	18.5
		7/31/18	7.10	20.9	557.7	20.1
TERRY	229470	3/18/19	7.46	20.6	419.4	6.63
		7/19/19	7.31	20.1	447.3	6.25
		8/13/20	7.38	21.6	453.6	6.76

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
THOMPSON 341	218341	5/29/13	7.22	24.4	415.9	7.32
		8/9/13	7.57	22.2	420.0	7.62
		10/9/13	7.49	21.6	425.2	7.54
		1/16/14	7.53	21.5	432.7	7.48
		4/14/14	7.50	21.6	425.8	7.68
		7/21/14	7.48	22.3	414.2	8.02
		10/22/14	7.23	22.3	430	8.02
		8/3/15	7.50	23.1	425.7	7.52
		7/15/16	7.45	22.4	420.8	8.46
		7/28/17	7.24	21.2	422.4	8.33
		7/26/18	7.34	21.0	420.6	8.27
		7/10/19	7.15	21.7	418.3	6.44
		8/12/20	7.29	21.6	420.3	7.85
TM-02A	522574	3/4/08	8.67	22.6	302	12.3
		5/23/08	7.75	22.9	321	14.7
		8/15/08	7.84	26.4	369	14.4
		10/30/08	8.07	23.9	375	21.9
		2/24/09	8.10	24.8	340	20.3
		5/6/09	8.06	26.7	320	18.7
		8/12/09	8.34	26.9	398	20
		11/4/09	8.16	26.3	381	21.8
		3/10/10	8.13	25.2	351	21.4
		3/10/10 DUP	8.13	25.2	351	21.3
		4/6/10	6.96	24.6	363	25.6
		7/6/10	7.38	24.6	343	22.1
		2/10/11	6.93	20.2	359	22.9
		7/13/11	7.92	24.8	349	22.5
		2/2/12	7.89	22.2	360	23.0
		8/14/12	7.65	24.6	366	23.4
		2/15/13	7.72	22.2	369	22.1
		8/27/13	7.72	24.7	414	23.5
		2/18/14	7.54	24.3	388	24.5
		8/12/14	7.62	24.7	395	25.6
		8/1/17	7.84	24.7	333	21.5
		8/8/19	8.02	24.4	359	19.4
TM-03	522575	5/20/08	7.51	22.2	778	110
		8/6/08	7.08	21.6	828	97
		11/12/08	7.47	20.5	590	128
		2/26/09	7.21	21.8	737	107
		2/26/09 DUP	7.21	21.8	737	102
		5/13/09	7.47	22.2	695	109
		8/18/09	7.48	22.4	822	98
		11/10/09	7.55	21.8	761	106
		3/2/10	7.56	21.6	748	99
		4/14/10	7.55	20.6	635	103
		7/7/10	7.19	21.4	566	103
		2/1/12	7.48	21.1	744	112
TM-06 MILLER	522695	2/27/08	7.44	19.6	457	13.9
		5/20/08	7.50	20.7	506	32.7
		8/4/08	7.41	20.7	529	31.3
		10/29/08	7.55	20.2	531	34.5
		2/26/09	7.18	20.4	574	32.7
		5/13/09	7.35	20.9	465	30.6
		8/18/09	7.50	20.9	560	30.9
		8/18/09 DUP	7.50	20.9	560	29.9
		11/12/09	7.53	20.4	530	31.1
		4/14/10	7.35	19.4	461	29.0
		7/2/10	7.24	20.1	438	29.8
		7/21/11	7.1	20.1	516	31.7
		7/9/12	6.82	20.8	505	33.5
		2/14/13	6.92	19.6	527	31.1
		8/19/13	7.21	19.9	556	32.5
		7/21/14	7.17	19.9	551	33.0
		7/26/17	7.27	20.4	521	34.5
		7/31/19	7.40	20.5	531	35.6

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TM-07	522576	3/6/08	7.54	20.8	726	22.5
		5/22/08	6.96	20.1	385	22.9
		8/6/08	7.04	22.8	519	22.2
		11/4/08	7.76	20.6	347	31.2
		2/20/09	7.77	19.9	376	22.5
		5/13/09	7.30	22.9	559	130
		8/17/09	7.60	22.6	442	134
		11/3/09	7.85	21.8	441	134
		3/2/10	7.67	21.6	422	124
		5/25/10	7.77	21.2	398	42.6
		7/6/10	7.58	22.0	350	44.7
		2/11/11	6.87	20.1	393	24.9
		7/21/11	6.90	21.4	402	41.7
		2/9/12	7.15	23.0	670	171
		8/13/12	6.83	21.7	415	25.4
		2/27/13	6.81	19.9	380	25.6
		8/28/13	7.36	21.2	369	25.0
		2/13/14	6.99	20.4	372	27.4
		8/21/14	7.35	20.6	358	48.5
		2/4/15	7.58	21.0	375	102
		9/15/15	7.36	21.5	411	91.3
		3/14/16	7.46	21.4	419	130
		9/15/16	7.47	21.2	638	123
		3/1/17	7.59	20.8	581	129
		8/2/17	7.56	21.5	563	129
		2/12/18	7.78	20.4	544	133
		8/6/18	7.52	21.8	586	116
		2/5/19	7.71	20.7	568	114
		8/19/19	7.50	21.1	619	94.1
		2/10/20	7.61	20.8	614	117
TM-08 SWAN	522817	2/13/08	7.63	24.1	511	24.1
		5/14/08	7.44	24.4	480	12.6
		7/23/08	7.76	28.1	522	12.6
TM-10 USBP	522696	12/8/11	6.95	19.6	381	16.8
		3/15/12	7.85	20.2	382.3	15.1
		4/24/12	7.88	21.0	280	13.4
		4/24/12 DUP	7.88	21.0	280	13.3
		9/13/12	8.09	21.1	407	13.3
		10/19/12	8.17	21.0	428.2	12.8
		3/7/13	8.33	21.2	415.1	12.7
		4/17/13	8.27	20.3	423.9	12.8
		7/23/13	8.16	21.4	426.1	13.2
		11/6/13	7.90	21.3	386.5	4.81
		11/6/13 DUP	7.90	21.3	386.5	4.64
		1/15/14	7.91	21.1	424.4	3.98
		5/15/14	7.98	20.4	410.6	5.12
		7/15/14	7.86	21.4	421.9	5.46
		10/16/14	7.51	22.0	439	4.16
		1/28/15	7.75	23.0	413	3.96
		7/24/15	7.87	22.6	478.8	4.38
		2/2/16	7.95	19.8	493.5	5.32
		7/13/16	7.73	22.0	514.9	6.67
		1/27/17	7.75	21.3	418.4	4.81
		7/17/17	7.77	23.5	409.5	8.01
		1/8/18	7.60	20.8	387.3	6.80
		7/9/18	7.92	23.5	391.4	8.65
		1/8/19	7.54	20.6	381.8	12.8
		7/16/19	7.67	21.5	378.6	15.0
		1/6/20	7.78	20.1	376.0	14.9
		8/3/20	7.62	21.4	374.5	14.1
TM-15 MILLER	522699	2/27/08	7.66	21.9	344	14
		5/23/08	7.54	22.1	371	14.4
		8/5/08	7.42	23.3	413	13.7
		10/28/08	7.63	22.6	387	18.6
		10/28/08 DUP	7.63	22.6	387	18.8
		2/26/09	7.57	22.0	373	14.6
		5/13/09	7.61	23.1	344	13.7
		8/17/09	7.73	23.2	398	14.2
		11/3/09	7.73	23.4	414	14.8
		2/24/10	7.66	22.8	381	14.4
		4/27/10	7.71	23.0	383.6	14.9
		7/20/10	7.77	23.0	324	14.3
		7/12/11	7.36	23.2	380	14.2
		7/10/12	7.04	23.7	379	14.9
		2/12/13	6.96	21.7	393	14.6
		9/4/13	7.2	22.8	412	14.8
		7/22/14	7.18	23.2	407	14.6
		9/8/15	7.19	23.0	411	14.7
		9/14/16	7.45	23.1	381	14.5
		8/1/17	7.38	22.9	384	14.8
		7/18/18	7.46	23.1	386	14.8
		8/19/19	7.59	22.7	387	14.6
		8/24/20	7.61	22.9	386	14.9

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TM-16	522578	3/5/08	7.17	20.6	1351	497
		5/22/08	7.05	20.5	1304	522
		8/6/08	6.67	20.9	1410	466
		11/5/08	7.14	19.8	1162	547
		2/20/09	6.90	21.1	1292	492
		5/13/09	6.93	21.1	1179	484
		8/19/09	7.08	21.2	1354	468
		11/10/09	7.02	21.0	1310	505
		3/2/10	7.13	20.4	1313	451
		4/14/10	6.90	19.9	987	484
		7/2/10	6.81	20.8	858	474
		7/14/11	6.97	20.5	1285	511
		7/16/11	6.97	20.5	1285	513
		7/9/12	6.95	21.0	1292	544
		8/15/13	6.86	20.3	1374	539
		8/4/14	6.79	20.6	1368	550
		7/12/17	6.87	20.9	1321	536
		7/30/19	7.15	21.0	1310	479
TM-19A	522581	3/6/08	8.02	22.2	240	56.1
		5/22/08	7.36	24.0	501	64.5
		8/6/08	7.32	22.6	494	55.3
		11/18/08	7.79	24.3	365	66.3
		3/3/09	7.41	24.5	489	66.2
		4/22/09	7.44	24.3	494	62.5
		8/12/09	7.61	24.4	554	61.3
		11/4/09	7.47	24.2	522	63
		3/10/10	7.54	22.9	511	60.6
		4/9/10	6.49	23.0	435	66.5
		7/7/10	6.93	23.8	428	63.2
		2/14/11	6.69	21.4	511	61.9
		7/15/11	7.11	24.1	499	62.1
		2/2/12	7.13	22.5	498	62.2
		7/10/12	7.12	23.5	505	63.7
		2/15/13	6.74	23.2	522	60.1
		9/4/13	7.11	23.8	538	61.3
		2/12/14	6.93	23.6	548	62.8
		7/21/14	7.06	24.2	542	63.3
		9/10/15	7.31	24.0	502	61.4
		8/18/16	7.27	24.1	505	64.7
		7/26/17	7.27	24.1	505	64.6
		7/25/18	7.49	24.3	511	71.4
		8/7/19	7.41	24.1	510	56.6
		8/17/20	7.52	23.5	515	59.2
TM-42	562554	3/5/08	7.10	20.8	1342	482
		5/22/08	7.05	21.4	1270	483
		8/6/08	6.69	22.0	1388	467
		11/6/08	6.90	21.0	1025	477
		2/18/09	6.72	22.3	1245	429
		5/7/09	6.88	24.5	1155	430
		5/7/09 DUP	6.88	24.5	1155	445
		8/18/09	7.04	24.4	1336	428
		11/3/09	7.07	23.1	1266	430
		2/24/10	7.13	22.7	1236	390
		4/19/10	6.87	21.5	985	444
		7/2/10	6.81	23.9	827	407
		7/12/11	6.83	22.0	1205	441
		2/9/12	6.76	20.5	1172	444
		7/11/12	6.72	21.1	1155	449
		2/12/13	6.69	20.2	1185	400
		8/28/13	6.89	21.3	1212	416
		7/21/14	6.85	21.4	1205	418
		7/26/17	6.98	21.6	1234	485
		8/7/19	6.99	21.7	1371	527
TM-43	564729	3/3/08	8.57	21.0	341	2.1
		8/4/08	8.14	25.7	436	<5
TM-43A	564726	3/3/08	6.17	19.9	2788	1420
		8/4/08	6.03	21.6	3149	1320
TM-43B	565004	3/3/08	6.79	20.6	514	0.7
		8/5/08	6.89	21.0	507	31.8
		8/5/08 DUP	6.89	21.0	507	32.5

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
TVI 236	802236	3/20/08	7.48	20.0	488	31.3
		5/7/08	7.13	20.4	494	32.6
		7/15/08	7.39	21.9	532	37.6
		10/15/08	7.45	22.3	490	36.6
		2/11/09	7.32	20.1	391	27.6
		4/17/09	7.36	19.3	418	28.1
		4/17/09 DUP	7.36	19.3	418	28.3
		7/21/09	7.59	22.9	484	31.3
		10/19/09	7.31	22.1	513	33.2
		2/2/10	7.39	20.4	497	26
		4/23/10	7.46	20.0	504.6	30.9
		7/15/10	7.37	21.5	499.4	39.3
		7/15/11	6.80	22.4	499.6	42.9
		7/16/12	7.30	21.1	500	36.3
		10/9/12	7.56	20.4	513.7	40.9
		7/18/13	7.38	20.9	514.4	42.4
		7/16/14	7.41	21.1	517.3	43.9
		7/30/15	7.43	20.5	529.1	16.5
		1/12/16	7.57	19.5	505.8	44.1
		9/26/16	7.42	19.0	511.4	15.1
		1/27/17	7.32	19.3	519.5	47.0
		7/31/17	7.04	19.0	532.5	15.8
		1/17/18	7.30	18.6	531.3	29.5
		7/27/18	7.22	19.3	535.8	17.5
		1/16/19	7.41	18.5	530.8	29.0
TVI 875	568875	2/21/08	7.28	21.1	739	244
		5/7/08	7.09	21.2	833	250
		7/15/08	7.27	22.4	925	274
		10/15/08	7.26	22.1	878	245
		2/11/09	7.20	20.7	738	312
		4/17/09	7.31	21.5	690	251
		7/21/09	7.47	22.2	812	236
		10/19/09	7.23	21.9	822	247
		2/2/10	7.32	20.8	939	250
		4/23/10	7.34	20.2	930.4	294
		7/15/10	7.46	21.8	842.5	262
		10/20/10	7.79	21.9	890	242
		1/20/11	7.39	21.0	780	226
		4/11/11	7.20	21.1	820.6	235
		7/15/11	6.75	22.2	791.9	239
		10/12/11	7.35	22.7	868.5	262
		2/3/12	7.20	20.5	850	299
		4/25/12	7.19	21.3	840	267
		7/16/12	7.13	22.2	860	261
		7/16/12 DUP	7.13	22.2	860	267
		10/9/12	7.39	20.9	882.8	281
		2/6/13	7.23	20.8	946.1	335
		4/10/13	7.35	20.9	907.6	296
		7/18/13	7.31	21.4	994.2	355
		10/8/13	7.35	21.0	894.6	275
		1/9/14	7.23	20.3	917.4	305
		4/9/14	7.31	20.9	910.7	296
		7/16/14	7.30	21.6	940.2	328
		10/9/14	7.12	21.2	963	245
		7/30/15	7.35	22.1	915.4	277
		7/14/16	7.28	21.6	919.1	271
		7/13/17	7.19	20.1	920.0	303
		7/12/18	7.16	20.0	928.8	309
		7/18/19	7.09	19.8	972.2	325
WALKER	200393	2/13/08	7.05	20.2	650	20
		7/23/08	7.25	20.7	740	45.4

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
WEED	544535	2/14/08	7.74	21.7	323	11.1
		5/15/08	7.22	22.7	365	12.6
		7/30/08	7.42	32.0	407	11.5
		10/20/08	8.10	31.6	405	10.2
		2/13/09	7.66	21.0	303	12.6
		4/22/09	7.46	22.2	368	11.6
		7/16/09	7.50	21.9	365	10.8
		10/20/09	7.34	21.6	381	12.7
		2/1/10	7.60	20.8	382	12.2
		4/26/10	7.69	22.1	366	13.4
		7/21/10	7.36	22.1	354.9	13.6
		7/21/10 DUP	7.36	22.1	354.9	13.5
		10/19/10	7.63	21.2	378.8	11.7
		1/19/11	7.62	21.1	383.6	12.2
		4/11/11	7.44	21.5	386.6	13
		7/18/11	7.56	22.0	379.3	12.7
		10/12/11	7.02	21.7	382.8	13.3
		2/6/12	7.60	21.4	385.0	13.5
		4/25/12	7.60	22.1	360	12.7
		7/5/12	7.64	21.7	385.8	12.9
		10/9/12	7.66	21.5	385.1	14.0
		2/7/13	7.7	21.4	389.7	14.0
		2/7/13 DUP	7.7	21.4	389.7	13.2
		4/10/13	7.76	20.6	383.9	13.0
		7/19/13	7.63	21.3	386.6	14.2
		10/18/13	7.72	21.1	387.3	13.1
		1/15/14	7.73	20.7	388.4	13.4
		4/10/14	7.85	21.5	387.1	13.5
		7/18/14	7.79	21.4	386.7	14.1
		10/22/14	7.5	22.7	394	13.7
		1/30/15	7.81	20.7	381	14.2
		8/4/15	7.72	22	386.7	13.1
		1/14/16	7.79	20.2	376.9	13.7
		7/22/16	7.89	22.9	376.2	13.2
		1/23/17	7.58	20.4	387.5	13.3
		7/24/17	7.52	20.5	386.8	13.9
		1/16/18	7.51	20.3	384.2	14.0
		7/16/18	7.49	20.4	385.1	13.3
		1/8/19	7.52	20.3	388.2	13.1
		7/8/19	7.02	21.3	393.5	11.1
		1/22/20	7.10	20.8	387.1	13.5
		7/21/20	7.63	21.2	384.2	13.7
WEISKOPF 802	641802	2/15/08	7.48	20.0	1072	500
		5/7/08	7.10	21.8	1251	483
		7/16/08	7.07	22.2	1399	560
		10/28/08	6.98	20.8	1401	602
		1/29/09	6.79	20.7	1014	503
		4/15/09	7.53	21.1	1164	503
		7/15/09	7.84	22.1	1317	486
		10/15/09	6.89	21.4	1216	484
		2/2/10	7.22	20.4	1319	451
		4/22/10	7.30	19.3	1329	572
		7/19/10	7.06	23.1	1330	573
		10/20/10	7.64	21.6	1360	515
		10/20/10 DUP	7.64	21.6	1360	529
		1/17/11	7.16	22.0	1270	481
		4/11/11	6.88	22.4	1365	557
		8/26/11	6.83	23.5	1200	549
		10/13/11	7.07	22.8	1299	539
		2/3/12	7.35	21.5	1363	583
		4/25/12	7.07	23.5	1300	575
		7/13/12	6.83	22.2	1530	552
		10/11/12	7.26	21.3	1369	572
		10/11/12 DUP	7.26	21.3	1369	577
		1/16/13	7.14	20.5	1298	523
		4/17/13	7.22	20.1	1337	558
		7/18/13	7.45	21.3	1131	420
		10/17/13	7.29	22.5	1131	437
		1/16/14	7.28	22.7	1323	563
		4/11/14	7.29	23.0	1304	558
		7/18/14	7.17	23.3	1375	608
		10/9/14	7.08	24.5	1094	405
		8/4/15	7.07	24.5	1571	699
		8/4/15 DUP	7.07	24.5	1571	701
		7/26/16	7.00	22.8	1483	702
		7/24/17	6.85	22.8	1524	698
		7/23/19	6.90	21.8	1520	657

TABLE 3
Compilation of Analytical Results For Sulfate and Field Parameters

Well Name	ADWR 55 Registry Number	Sample Date	pH (SU)	Temp (deg C)	SC (µS/cm)	Sulfate, dissolved (mg/L)
WEISKOPF 897	220897	12/6/12	7.93	23.6	398.3	18.5
		1/16/13	7.88	23.1	398.9	18.2
		1/16/13 DUP	7.88	23.1	398.9	18.2
		4/17/13	7.86	22.6	394.4	19.0
		7/18/13	7.84	24.3	393.2	18.0
		10/17/13	7.90	23.3	392.2	18.3
		1/16/14	7.90	23	395.8	18.4
		4/11/14	7.92	23.5	390.5	17.9
		7/18/14	7.87	23.9	387.4	18.4
		10/9/14	7.69	22.8	392	17.7
		8/4/15	7.89	24.9	385.7	17.3
		7/26/16	7.81	23.8	387.0	17.8
		7/24/17	7.58	23.1	386.7	17.0
		7/16/18	7.60	22.9	383.3	16.7
		7/23/19	7.57	22.9	383.1	16.1
		7/23/20	7.59	23.7	381.5	16.9
WMD-2011-03M	913037	2/2/12	6.66	22.0	1190	391
ZANDER	205126	2/4/08	7.24	19.7	392	5.7
		5/6/08	7.26	21.2	404	6.3
		7/16/08	6.92	22.9	441	6.9
		10/28/08	7.40	21.2	415	15
		2/10/09	7.50	20.4	317	6
		4/16/09	7.47	21.7	352	5.5
		7/14/09	7.36	22.9	418	4.5
		10/13/09	7.41	21.7	407	6.3
		1/26/10	7.49	20.3	411	5.7
		4/2/10	7.55	20.0	416	6.70
		7/21/10	7.38	22.7	388.2	6.78
		10/19/10	6.78	21.3	430	6.56
		1/18/11	7.59	18.9	380	6.14
		1/18/11 DUP	7.59	18.9	380	6.06
		4/6/11	7.20	19.7	425.8	6.12
		7/13/11	7.29	22.9	410.10	6.43
		10/12/11	7.35	22.2	426.2	6.38
		1/31/12	7.29	20.3	420	6.59
		4/10/12	7.49	21.9	420.1	6.90
		4/10/12 DUP	7.49	21.9	420.1	6.65
		7/17/12	7.34	22.2	430	6.38
		10/8/12	7.58	20.8	431.4	7.03
		1/10/13	7.58	20.7	436.1	6.52
		4/18/13	7.65	20.8	436.7	6.66
		7/15/13	7.55	21.8	431.1	6.49
		10/7/13	7.59	21.5	430.2	6.41
		1/7/14	7.50	20.9	435.4	6.77
		4/9/14	7.57	21.5	434.4	6.57
		7/17/14	7.61	21.5	432.0	6.99
		10/13/14	7.52	23.8	422.0	6.24
		8/3/15	7.61	22.5	430.3	6.54
		7/15/16	7.53	22.4	434.1	7.12
		7/24/17	7.26	20.5	430.2	7.21
		7/24/18	7.28	20.7	427.0	7.12
		7/16/19	7.23	20.4	426.5	6.49
		8/11/20	7.29	21.2	426.3	6.99

Notes:
35-71891 = ADWR 35 Database
ADWR = Arizona Department of Water Resources
deg C = degrees Celsius
DUP = Blind duplicate
M = Multi-Meter Malfunction
mg/L = milligrams per liter
ND = No Data
NR = No Record
SC = Specific Conductance
SU = Standard Units
µS/cm = microsiemens per centimeter
[1] Verified drinking water supply well, sample collected for sulfate trend analysis and interim action evaluation

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ANDERSON 396	613396	601134.729	3468816.065	4588.51	3/20/08	145.46	4443.05
					5/5/08	145.84	4442.67
					7/14/08	146.16	4442.35
					10/15/08	146.21	4442.30
					1/27/09	145.97	4442.54
					4/14/09	146.21	4442.30
					7/14/09	146.88	4441.63
					10/12/09	147.31	4441.20
					1/27/10	147.31	4441.20
					4/21/10	147.57	4440.94
					7/19/10	148.34	4440.17
					10/19/10	147.75	4440.76
					1/17/11	148.63	4439.88
					4/11/11	149.46	4439.05
					7/14/11	149.92	4438.59
					10/11/11	150.19	4438.32
					2/1/12	150.19	4438.32
					4/25/12	150.69	4437.82
					7/12/12	151.34	4437.17
					10/10/12	151.50	4437.01
					1/17/13	151.24	4437.27
					4/15/13	152.08	4436.43
					7/18/13	152.19	4436.32
					10/16/13	152.41	4436.10
					1/9/14	152.14	4436.37
					4/7/14	152.56	4435.95
					7/11/14	152.02	4436.49
					10/6/14	152.70	4435.81
					2/2/15	152.09	4436.42
					5/18/15	152.22	4436.29
					7/22/15	152.63	4435.88
					10/8/15	152.39	4436.12
					1/12/16	152.00	4436.51
					7/19/16	154.43	4434.08
					1/16/17	153.34	4435.17
					7/18/17	153.99	4434.52
					1/16/18	153.89	4434.62
					7/18/18	154.61	4433.90
					1/7/19	155.18	4433.33
					7/11/19	155.70	4432.81
					1/6/20	155.94	4432.57
					7/22/20	156.05	4432.46
ANDERSON 458	221458	601118.690	3468826.284	4585.37	9/7/12	173.76	4411.61
					10/10/12	151.82	4433.55
					1/17/13	152.17	4433.20
					4/15/13	158.42	4426.95
					7/18/13	157.56	4427.81
					10/16/13	156.24	4429.13
					1/9/14	152.58	4432.79
					4/7/14	153.54	4431.83
					7/11/14	156.66	4428.71
					10/6/14	157.31	4428.06
					5/18/15	156.79	4428.58
					7/22/15	157.03	4428.34
					7/19/16	153.02	4432.35
					7/18/17	155.93	4429.44
					7/18/18	158.55	4426.82
					7/11/19	185.21	4400.16
					7/22/20	178.36	4407.01

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ASLD 435	616435	593496.865	3468879.791	4471.34	6/27/13	250.85	4220.49
					9/24/13	250.85	4220.49
					12/3/13	250.79	4220.55
					2/25/14	250.75	4220.59
					6/4/14	250.93	4220.41
					9/10/14	250.97	4220.37
					11/20/14	250.66	4220.68
					3/24/15	250.25	4221.09
					9/17/15	250.17	4221.17
					3/24/16	250.17	4221.17
					9/28/16	250.21	4221.13
					3/20/17	250.55	4220.79
					8/10/17	250.94	4220.40
					3/8/18	251.30	4220.04
					8/22/18	251.57	4219.77
					2/14/19	251.93	4219.41
					9/9/19	252.42	4218.92
					2/27/20	252.73	4218.61
					8/25/20	253.10	4218.24
AWC-02	616586	598907.911	3468549.357	4547.64	4/8/08	116	4431.64
					8/27/08	121.12	4426.52
					10/23/08[1]	115	4432.64
					4/22/09[1]	118	4429.64
					10/9/09[1]	117	4430.64
					4/23/10[1]	119	4428.64
					4/11/13	127.64	4420.00
					7/25/13	128.89	4418.75
					10/7/13[1]	125.00	4422.64
					1/7/14	125.36	4422.28
					5/14/14	124.89	4422.75
					7/16/14	124.49	4423.15
					10/15/14	122.52	4425.12
					1/29/15	120.00	4427.64
					5/18/15	162.60	4385.04
					7/21/15	129.08	4418.56
					10/2015[1]	128.00	4419.64
					1/13/16	128.80	4418.84
					7/19/16	125.40	4422.24
					1/19/17	119.69	4427.95
					9/6/17	131.56	4416.08
					1/17/18	131.93	4415.71
					7/25/18	129.03	4418.61
					1/16/19	121.92	4425.72
					7/23/19	130.58	4417.06
					1/13/20	123.78	4423.86
					8/3/20	128.44	4419.20

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
AWC-03	616585	599090.322	3468681.898	4539.52	4/8/08	112	4427.52
					8/27/08	119.40	4420.12
					10/23/08[1]	106	4433.52
					4/22/09[1]	114	4425.52
					10/9/09[1]	116	4423.52
					4/23/10[1]	116	4423.52
					4/11/13[1]	125	4414.52
					7/16/13[1]	126	4413.52
					10/7/13[1]	122	4417.52
					1/7/14[1]	121	4418.60
					5/14/14[1]	121.50	4418.02
					7/16/14[1]	123.50	4416.02
					10/15/14	119.60	4419.92
					1/29/15	120.20	4419.32
					5/19/15	186.20	4353.32
					7/21/15	118.00	4421.52
					10/2015[1]	115.00	4424.52
					1/13/16[1]	118.00	4421.52
					7/19/16	125.50	4414.02
					1/19/17[1]	123.00	4416.52
					9/6/17[1]	121.30	4418.22
					1/17/18[1]	113.60	4425.92
					7/25/18[1]	125.7	4413.82
					1/16/19[1]	123.0	4416.52
					7/23/19[1]	126.50	4413.02
					1/13/20[1]	123.50	4416.02
					8/3/20[1]	129.00	4410.52
AWC-04	616584	598949.929	3468717.084	4540.48	4/8/08	108	4432.48
					8/27/08	112.56	4427.92
					10/23/08[1]	111.31	4429.17
					4/22/09[1]	110	4430.48
					10/9/09[1]	110	4430.48
					4/23/10[1]	109	4431.48
					4/11/13	120.93	4419.55
					7/16/13	123.76	4416.72
					10/7/13[1]	116.00	4424.48
					1/7/14	115.98	4424.50
					5/14/14	115.32	4425.16
					7/16/14	118.44	4422.04
					10/15/14	114.29	4426.19
					1/29/15	112.20	4428.28
					5/19/15	113.90	4426.58
					7/21/15	131.70	4408.78
					10/2015[1]	129	4411.48
					1/13/16	130.33	4410.15
					7/19/16	119.70	4420.78
					1/19/17	113.15	4427.33
					9/6/17	127.92	4412.56
					1/17/18	125.86	4414.62
					7/25/18	120.27	4420.21
					1/16/19	115.33	4425.15
					7/23/19	126.48	4414.00
					1/13/20	115.84	4424.64
					8/3/20	119.42	4421.06

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
AWC-05	590620	599269.904	3468541.692	4542.51	4/8/08	284	4258.51
					8/27/08	299.65	4242.86
					10/23/08	284	4258.51
					4/22/09	286	4256.51
					6/3/09	125	4417.51
					10/9/09[1]	289	4253.51
					4/23/10[1]	278	4264.51
					4/11/13	229.56	4312.95
					7/16/13	203.17	4339.34
					10/7/13[1]	142.00	4400.51
					1/7/14	123.09	4419.42
					5/14/14	346.75	4195.76
					7/16/14	346.34	4196.17
					10/15/14	316.16	4226.35
					1/29/15	133.98	4408.53
					5/18/15	148.05	4394.46
					7/21/15	120.84	4421.67
					10/2015[1]	116	4426.51
					1/13/16	116.22	4426.29
					7/19/16	329.30	4213.21
					1/19/17	318.24	4224.27
					9/6/17	322.50	4220.01
					1/17/18	194.14	4348.37
					7/25/18	132.92	4409.59
					1/16/19	147.85	4394.66
					7/23/19	195.46	4347.05
					1/13/20	143.20	4399.31
					8/3/20	156.45	4386.06

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BANKS 987	647987	606981.921	3469206.175	4648.18	2/27/08	208.00	4440.18
					5/12/08	216.30	4431.88
					7/21/08	228.95	4419.23
					10/13/08	228.20	4419.98
					1/21/09	206.64	4441.54
					4/8/09	205.50	4442.68
					7/9/09	235.68	4412.50
					10/7/09	236.71	4411.47
					2/25/10	216.98	4431.20
					4/20/10	219.35	4428.83
					7/20/10	235.60	4412.58
					10/20/10	230.24	4417.94
					1/17/11	215.28	4432.90
					4/5/11	221.68	4426.50
					7/11/11	237.39	4410.79
					10/12/11	237.34	4410.84
					1/31/12	228.95	4419.23
					4/11/12	219.39	4428.79
					7/6/12	232.59	4415.59
					10/4/12	237.16	4411.02
					1/18/13	237.81	4410.37
					4/8/13	237.92	4410.26
					7/9/13	238.32	4409.86
					10/15/13	239.48	4408.70
					1/14/14	239.53	4408.65
					4/8/14	231.49	4416.69
					7/8/14	228.85	4419.33
					10/21/14	233.96	4414.22
					1/26/15	230.87	4417.31
					7/24/15	237.53	4410.65
					1/11/16	237.42	4410.76
					7/12/16	232.54	4415.64
					1/17/17	221.90	4426.28
					7/26/17	233.25	4414.93
					1/15/18	237.31	4410.87
					7/30/18	237.12	4411.06
					1/15/19	237.21	4410.97
					7/11/19	237.42	4410.76
					1/14/20	237.42	4410.76
					8/13/20	237.29	4410.89
BARTON 919	644919	606243.850	3469076.689	4692.36	5/12/08	113.71	4578.65
					7/23/08	113.56	4578.80
					10/16/08	113.20	4579.16
					3/11/09	112.92	4579.44
					4/10/09	112.89	4579.47
					7/7/09	112.86	4579.50
					7/17/13	114.18	4578.18
					1/14/14	113.96	4578.40
					7/17/14	113.42	4578.94
					7/20/15	113.22	4579.14
					1/11/16	113.33	4579.03
					7/19/16	113.35	4579.01
					1/17/17	113.47	4578.89
					7/14/17	113.52	4578.84
					1/15/18	113.88	4578.48
					7/17/18	113.95	4578.41
					1/15/19	114.27	4578.09
					7/11/19	113.72	4578.64
					1/21/20	113.72	4578.64

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BF-01	539783	604169.077	3472151.593	4835.23	3/4/08	348.99	4486.24
					5/23/08	348.80	4486.43
					8/5/08	348.66	4486.57
					11/5/08	348.94	4486.29
					2/20/09	348.78	4486.45
					5/6/09	348.73	4486.50
					8/17/09	348.73	4486.50
					11/4/09	348.65	4486.58
					3/1/10	348.84	4486.39
					4/7/10	348.70	4486.53
					7/6/10	348.69	4486.54
					7/13/11	348.67	4486.56
					2/1/12	347.84	4487.39
					8/13/12	343.95	4491.28
BIMA	577927	606001.245	3471852.804	4802.05	5/13/08	367.31	4434.74
					8/18/08	370.24	4431.81
					10/23/08	353.96	4448.09
					1/20/09	353.07	4448.98
					4/7/09	357.76	4444.29
					7/8/09	365.44	4436.61
					10/5/09	370.11	4431.94
					4/19/10	382.25	4419.80
					7/21/10	386.89	4415.16
					10/18/10	387.39	4414.66
					1/19/11	391.47	4410.58
					4/4/11	395.22	4406.83
BMO-2008-1G	909474	606467.681	3471723.644	4805.10	8/27/08	62.05	4743.05
					11/11/08	60.95	4744.15
					2/25/09	61.43	4743.67
					4/28/09	62.01	4743.09
					8/4/09	62.96	4742.14
					10/27/09	63.61	4741.49
					2/17/10	64.51	4740.59
					4/15/10	65.05	4740.05
					7/7/10	65.83	4739.27
					2/10/11	67.74	4737.36
					7/12/11	69.37	4735.73
					2/8/12	70.33	4734.77
					8/14/12	71.73	4733.37
					2/14/13	72.95	4732.15
					8/14/13	73.82	4731.28
					2/13/14	73.79	4731.31
					7/22/14	74.14	4730.96
					2/4/15	73.70	4731.40
					9/10/15	74.12	4730.98
					3/3/16	74.30	4730.80
					8/17/16	75.02	4730.08
					3/1/17	75.62	4729.48
					7/24/17	76.16	4728.94
					2/14/18	76.97	4728.13
					7/10/18	77.70	4727.40
					2/5/19	78.44	4726.66
					7/31/19	78.42	4726.68
					2/5/20	77.75	4727.35
					8/12/20	76.38	4728.72

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-3B	909147	602012.923	3467919.582	4583.97	7/18/08	138.05	4445.92
					11/4/08	137.95	4446.02
					2/19/09	138.19	4445.78
					5/11/09	138.46	4445.51
					8/6/09	139.02	4444.95
					10/26/09	139.60	4444.37
					3/3/10	140.03	4443.94
					4/8/10	140.07	4443.90
					7/1/10	140.70	4443.27
					2/14/11	141.41	4442.56
					7/12/11	142.21	4441.76
					2/23/12	143.90	4440.07
					7/10/12	143.70	4440.27
					2/15/13	144.53	4439.44
					8/27/13	145.10	4438.87
					2/11/14	145.08	4438.89
					7/21/14	145.36	4438.61
					2/5/15	144.79	4439.18
					5/28/15	144.90	4439.07
					9/14/15	145.24	4438.73
					10/21/15	145.39	4438.58
					3/3/16	145.18	4438.79
					8/18/16	145.94	4438.03
					3/1/17	146.32	4437.65
					7/26/17	146.84	4437.13
					2/8/18	147.16	4436.81
					7/10/18	147.92	4436.05
					2/5/19	148.88	4435.09
					8/6/19	149.47	4434.50
					2/6/20	149.99	4433.98
					8/12/20	150.17	4433.80
BMO-2008-4B	910096	601099.405	3468383.430	4573.17	12/11/08	130.77	4442.40
					2/18/09	130.58	4442.59
					4/30/09	131.24	4441.93
					8/6/09	131.96	4441.21
					10/27/09	132.04	4441.13
					2/24/10	131.82	4441.35
					4/16/10	132.65	4440.52
					7/2/10	133.20	4439.97
					2/15/11	133.78	4439.39
					7/22/11	134.80	4438.37
					2/23/12	134.64	4438.53
					9/17/12	136.15	4437.02
					1/15/13	136.13	4437.04
					4/15/13	136.78	4436.39
					9/18/13	137.04	4436.13
					1/9/14	136.96	4436.21
					7/18/14	137.49	4435.68
					1/12/16	136.54	4436.63
					9/30/17	138.68	4434.49
					1/18/18	138.71	4434.46
					7/26/18	139.42	4433.75
					1/14/19	139.96	4433.21
					7/22/19	140.40	4432.77
					1/22/20	140.66	4432.51
					8/11/20	140.89	4432.28

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-5B	909653	600438.159	3468994.715	4585.10	9/30/08	145.10	4440.00
					2/18/09	144.35	4440.75
					4/27/09	144.78	4440.32
					8/4/09	145.36	4439.74
					10/29/09	145.88	4439.22
					2/15/10	145.42	4439.68
					4/15/10	145.80	4439.30
					7/7/10	146.59	4438.51
					10/5/10	147.00	4438.10
					2/14/11	147.56	4437.54
					5/12/11	148.04	4437.06
					7/13/11	148.31	4436.79
					12/7/11	148.45	4436.65
					2/3/12	148.47	4436.63
					4/18/12	149.02	4436.08
					7/10/12	148.65	4436.45
					10/16/12	149.91	4435.19
					2/7/13	149.94	4435.16
					2/12/13	150.06	4435.04
					5/15/13	150.55	4434.55
					8/20/13	150.82	4434.28
					11/1/13	150.77	4434.33
					2/11/14	150.33	4434.77
					5/7/14	150.83	4434.27
					8/19/14	151.13	4433.97
					11/13/14	150.78	4434.32
					2/3/15	150.10	4435.00
					5/28/15	150.47	4434.63
					9/8/15	150.38	4434.72
					10/21/15	150.23	4434.87
					3/14/16	149.76	4435.34
					9/14/16	151.31	4433.79
					3/1/17	151.56	4433.54
					8/1/17	151.95	4433.15
					2/8/18	151.97	4433.13
					3/8/18	152.04	4433.06
					4/11/18	152.27	4432.83
					5/29/18	152.32	4432.78
					6/19/18	152.74	4432.36
					7/25/18	152.96	4432.14
					2/4/19	153.41	4431.69
					8/7/19	153.76	4431.34
					2/6/20	153.99	4431.11
					8/11/20	154.37	4430.73

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-5M	909552	600445.071	3468994.282	4585.02	10/2/08	146.65	4438.37
					2/18/09	145.97	4439.05
					4/27/09	146.46	4438.56
					8/4/09	147.13	4437.89
					10/29/09	147.68	4437.34
					2/15/10	147.07	4437.95
					4/16/10	147.34	4437.68
					7/7/10	148.28	4436.74
					10/5/10	148.68	4436.34
					2/14/11	148.74	4436.28
					5/12/11	149.66	4435.36
					7/12/11	150.20	4434.82
					12/7/11	150.30	4434.72
					2/3/12	150.05	4434.97
					4/18/12	150.70	4434.32
					7/10/12	151.65	4433.37
					10/16/12	151.77	4433.25
					2/12/13	152.00	4433.02
					5/15/13	152.42	4432.60
					8/20/13	152.76	4432.26
					11/1/13	152.53	4432.49
					2/11/14	151.78	4433.24
					5/7/14	152.26	4432.76
					8/19/14	152.78	4432.24
					11/13/14	152.27	4432.75
					2/3/15	151.61	4433.41
					5/19/15	151.58	4433.44
					9/8/15	151.63	4433.39
					3/14/16	150.87	4434.15
					9/14/16	152.68	4432.34
					3/1/17	152.84	4432.18
					8/1/17	153.27	4431.75
					2/8/18	153.03	4431.99
					7/25/18	154.19	4430.83
					2/4/19	154.54	4430.48
					8/7/19	155.00	4430.02
					2/6/20	155.20	4429.82
					8/11/20	155.85	4429.17

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-6B	909146	600366.523	3469820.644	4627.44	7/16/08	190.13	4437.31
					11/4/08	190.23	4437.21
					2/19/09	189.71	4437.73
					4/27/09	189.99	4437.45
					8/4/09	190.80	4436.64
					10/26/09	191.04	4436.40
					2/15/10	190.82	4436.62
					4/15/10	190.75	4436.69
					7/1/10	191.43	4436.01
					10/5/10	192.50	4434.94
					2/14/11	192.19	4435.25
					5/12/11	192.70	4434.74
					7/12/11	193.30	4434.14
					12/7/11	193.85	4433.59
					2/3/12	193.60	4433.84
					4/18/12	193.90	4433.54
					7/10/12	194.75	4432.69
					10/16/12	195.71	4431.73
					2/12/13	195.42	4432.02
					5/15/13	195.91	4431.53
					8/20/13	196.23	4431.21
					11/1/13	195.77	4431.67
					2/11/14	195.24	4432.20
					5/7/14	195.47	4431.97
					8/19/14	196.36	4431.08
					11/13/14	195.74	4431.70
					2/3/15	195.12	4432.32
					5/19/15	195.00	4432.44
					9/8/15	195.48	4431.96
					10/21/15	195.37	4432.07
					3/14/16	195.00	4432.44
					9/14/16	196.36	4431.08
					3/1/17	196.33	4431.11
					7/10/17	196.88	4430.56
					2/8/18	197	4430.44
					7/10/18	197.57	4429.87
					2/4/19	197.89	4429.55
					8/6/19	198.57	4428.87
					2/3/20	198.70	4428.74
					7/22/20	199.04	4428.40

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-6M	909019	600367.943	3469813.885	4626.90	7/10/08	191.63	4435.27
					11/4/08	190.25	4436.65
					2/20/09	190.70	4436.20
					4/28/09	190.98	4435.92
					8/4/09	191.77	4435.13
					10/26/09	192.14	4434.76
					2/15/10	191.78	4435.12
					4/15/10	191.64	4435.26
					7/1/10	192.53	4434.37
					10/5/10	192.96	4433.94
					2/14/11	193.14	4433.76
					5/12/11	193.68	4433.22
					7/12/11	194.47	4432.43
					12/7/11	194.92	4431.98
					2/3/12	194.65	4432.25
					4/18/12	195.00	4431.90
					7/10/12	196.10	4430.80
					10/16/12	196.53	4430.37
					2/12/13	196.45	4430.45
					5/15/13	196.90	4430.00
					8/20/13	197.43	4429.47
					11/1/13	196.53	4430.37
					2/11/14	196.18	4430.72
					5/7/14	196.33	4430.57
					8/19/14	197.40	4429.50
					11/13/14	196.32	4430.58
					2/3/15	195.90	4431.00
					5/19/15	195.64	4431.26
					9/8/15	196.32	4430.58
					3/14/16	195.87	4431.03
					9/14/16	197.37	4429.53
					3/1/17	197.24	4429.66
					7/10/17	197.92	4428.98
					2/8/18	197.96	4428.94
					7/10/18	198.63	4428.27
					2/4/19	198.78	4428.12
					8/6/19	199.61	4427.29
					2/3/20	199.52	4427.38
					7/22/20	200.02	4426.88

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-7M	908794	603099.165	3470029.283	4688.33	7/14/08	238.31	4450.02
					11/6/08	239.69	4448.64
					2/18/09	238.90	4449.43
					5/11/09	239.03	4449.30
					8/6/09	239.17	4449.16
					10/27/09	239.55	4448.78
					2/17/10	239.98	4448.35
					4/15/10	240.13	4448.20
					7/6/10	240.28	4448.05
					2/14/11	241.26	4447.07
					7/15/11	241.81	4446.52
					1/30/12	242.44	4445.89
					7/11/12	243.0	4445.33
					2/15/13	243.8	4444.53
					8/28/13	244.32	4444.01
					2/13/14	244.31	4444.02
					7/22/14	244.66	4443.67
					2/5/15	243.91	4444.42
					9/14/15	244.59	4443.74
					3/16/16	244.91	4443.42
					8/18/16	245.23	4443.10
					3/7/17	245.44	4442.89
					7/10/17	245.73	4442.60
					2/1/18	245.82	4442.51
					7/23/18	246.18	4442.15
					2/11/19	246.46	4441.87
					8/8/19	246.80	4441.53
					2/18/20	247.28	4441.05
					7/23/20	247.68	4440.65
BMO-2008-8B	910097	604171.347	3471141.719	4753.25	12/5/08	297.94	4455.31
					2/19/09	297.63	4455.62
					5/5/09	297.37	4455.88
					8/10/09	297.53	4455.72
					11/9/09	297.85	4455.40
					3/3/10	298.37	4454.88
					4/16/10	298.46	4454.79
					7/1/10	298.64	4454.61
					2/11/11	299.56	4453.69
					5/13/11	299.78	4453.47
					7/15/11	300.00	4453.25
					1/30/12	300.52	4452.73
					7/12/12	301.15	4452.10
					2/13/13	302.05	4451.20
					8/12/13	302.48	4450.77
					7/24/14	301.86	4451.39
					2/5/15	299.56	4453.69
					9/15/15	300.14	4453.11
					3/16/16	300.76	4452.49
					9/15/16	301.26	4451.99
					3/7/17	301.61	4451.64
					7/10/17	301.89	4451.36
					2/1/18	301.83	4451.42
					7/23/18	302.83	4450.42
					2/11/19	302.84	4450.41
					8/8/19	303.42	4449.83
					2/18/20	304.19	4449.06
					7/23/20	304.74	4448.51

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-8M	909711	604167.912	3471127.902	4752.45	12/9/08	299.79	4452.66
					2/19/09	298.32	4454.13
					5/5/09	298.27	4454.18
					8/10/09	298.57	4453.88
					11/5/09	298.81	4453.64
					3/3/10	299.18	4453.27
					4/16/10	299.42	4453.03
					7/1/10	299.70	4452.75
					1/24/11	300.46	4451.99
					5/13/11	301.00	4451.45
					7/15/11	300.96	4451.49
					1/30/12	301.60	4450.85
					7/12/12	302.45	4450.00
					2/14/13	303.07	4449.38
					8/12/13	303.60	4448.85
					2/19/14	303.11	4449.34
					7/24/14	303.48	4448.97
					2/5/15	301.98	4450.47
					9/15/15	302.46	4449.99
					3/16/16	303.19	4449.26
					9/15/16	303.43	4449.02
					3/7/17	303.85	4448.60
					7/10/17	304.09	4448.36
					2/1/18	303.94	4448.51
					7/23/18	304.20	4448.25
					2/11/19	304.09	4448.36
					8/8/19	304.8	4447.65
					2/18/20	304.90	4447.55
					7/23/20	305.42	4447.03
BMO-2008-9M	909255	604668.669	3471121.675	4762.61	8/8/08	287.17	4475.44
					11/5/08	287.65	4474.96
					2/26/09	285.65	4476.96
					5/12/09	285.28	4477.33
					8/17/09	286.09	4476.52
					11/3/09	286.55	4476.06
					3/4/10	287.45	4475.16
					4/6/10	287.81	4474.80
					7/1/10	288.26	4474.35
					2/10/11	289.77	4472.84
					5/13/11	290.47	4472.14
					7/15/11	290.95	4471.66
					2/1/12	293.44	4469.17
					7/12/12	294.65	4467.96
					2/13/13	296.67	4465.94
					8/12/13	297.63	4464.98
					2/18/14	293.68	4468.93
					7/24/14	293.53	4469.08
					2/5/15	286.01	4476.60
					9/14/15	286.34	4476.27
					3/16/16	287.22	4475.39
					9/15/16	289.35	4473.26
					3/7/17	289.83	4472.78
					7/11/17	291.03	4471.58
					2/1/18	289.66	4472.95
					7/26/18	291.78	4470.83
					2/11/19	291.42	4471.19
					8/12/19	292.67	4469.94
					2/20/20	290.43	4472.18
					7/20/20	288.57	4474.04

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-10GL	909435	605264.072	3471702.043	4792.21	8/20/08	521.75	4270.46
					11/5/08	520.50	4271.71
					2/25/09	516.72	4275.49
					5/12/09	514.68	4277.53
					8/11/09	513.23	4278.98
					11/2/09	509.43	4282.78
					3/4/10	510.88	4281.33
					4/8/10	506.31	4285.90
					7/2/10	511.80	4280.41
					7/13/11	512.16	4280.05
					2/2/12	511.34	4280.87
					7/13/12	510.90	4281.31
					2/18/13	509.91	4282.30
					8/13/13	509.32	4282.89
					8/7/14	507.21	4285.00
					2/10/15	463.22	4328.99
					9/14/15	439.93	4352.28
					3/16/16	364.33	4427.88
					8/17/16	337.26	4454.95
					3/7/17	332.86	4459.35
					7/11/17	337.89	4454.32
					2/1/18	337.84	4454.37
					7/26/18	333.28	4458.93
					1/28/19	326.80	4465.41
					8/1/19	316.92	4475.29
					2/17/20	324.94	4467.27
					7/20/20	298.10	4494.11
BMO-2008-10GU	909272	605267.551	3471731.866	4793.45	8/4/08	299.28	4494.17
					11/5/08	295.89	4497.56
					2/25/09	289.84	4503.61
					5/6/09	289.35	4504.10
					8/11/09	289.09	4504.36
					11/2/09	289.77	4503.68
					3/10/10	289.58	4503.87
					4/7/10	289.5	4503.95
					7/6/10	288.93	4504.52
					7/13/11	301.02	4492.43
					2/1/12	326.51	4466.94
					7/13/12	328.7	4464.75
					8/19/13	283.97	4509.48
					2/10/15	207.58	4585.87
					9/14/15	200.36	4593.09
					3/16/16	195.53	4597.92
					8/17/16	201.47	4591.98
					3/7/17	210.83	4582.62
					8/9/17	201.50	4591.95
					2/1/18	201.09	4592.36
					7/26/18	200.53	4592.92
					1/28/19	201.56	4591.89
					8/1/19	200.43	4593.02
					2/17/20	201.74	4591.71
					7/20/20	196.63	4596.82

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-11G	909434	603800.995	3472626.482	4844.67	8/22/08	577.76	4266.91
					11/12/08	576.80	4267.87
					2/26/09	575.91	4268.76
					4/8/09	575.46	4269.21
					8/12/09	574.84	4269.83
					11/9/09	573.41	4271.26
					3/1/10	573.68	4270.99
					4/9/10	573.56	4271.11
					7/1/10	572.97	4271.70
					2/10/11	571.61	4273.06
					7/22/11	571.20	4273.47
					1/31/12	569.83	4274.84
					8/14/12	569.70	4274.97
					2/13/13	568.75	4275.92
					8/27/13	566.50	4278.17
					2/19/14	564.68	4279.99
					8/14/14	564.24	4280.43
					2/5/15	560.60	4284.07
					9/14/15	557.84	4286.83
					3/15/16	556.04	4288.63
					8/17/16	554.94	4289.73
					3/2/17	554.27	4290.40
					7/11/17	554.02	4290.65
					2/12/18	552.11	4292.56
					7/12/18	552.20	4292.47
					1/28/19	550.72	4293.95
					8/6/19	550.89	4293.78
					2/4/20	548.35	4296.32
					8/13/20	546.77	4297.90
BMO-2008-13B	909551	601657.612	3470076.358	4649.21	10/3/08	206.42	4442.79
					2/17/09	206.11	4443.10
					5/6/09	206.32	4442.89
					8/5/09	206.79	4442.42
					10/28/09	207.08	4442.13
					2/16/10	207.26	4441.95
					4/14/10	207.27	4441.94
					7/6/10	207.68	4441.53
					2/10/11	208.51	4440.70
					5/13/11	208.95	4440.26
					7/15/11	209.36	4439.85
					2/9/12	209.78	4439.43
					7/11/12	210.60	4438.61
					2/27/13	211.40	4437.81
					9/4/13	212.15	4437.06
					8/19/14	212.68	4436.53
					2/4/15	212.28	4436.93
					9/15/15	212.37	4436.84
					3/16/16	211.95	4437.26
					9/21/16	212.84	4436.37
					3/7/17	213.15	4436.06
					8/2/17	213.57	4435.64
					2/1/18	213.6	4435.61
					8/6/18	214.22	4434.99
					2/11/19	214.79	4434.42
					8/20/19	215.16	4434.05
					2/20/20	215.46	4433.75
					8/5/20	215.70	4433.51

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2008-13M	909760	601650.495	3470040.455	4647.15	12/3/08	206.00	4441.15
					2/17/09	208.74	4438.41
					4/29/09	208.53	4438.62
					8/5/09	208.85	4438.30
					10/28/09	208.91	4438.24
					2/16/10	209.16	4437.99
					4/13/10	209.20	4437.95
					7/2/10	209.30	4437.85
					2/10/11	210.36	4436.79
					5/13/11	210.50	4436.65
					7/15/11	210.67	4436.48
					2/6/12	210.90	4436.25
					8/13/12	211.42	4435.73
					2/15/13	212.13	4435.02
					9/6/13	212.52	4434.63
					8/20/14	213.14	4434.01
					2/4/15	212.97	4434.18
					9/15/15	212.91	4434.24
					3/16/16	212.76	4434.39
					9/21/16	213.22	4433.93
					3/7/17	213.6	4433.55
					8/15/17	213.71	4433.44
					2/1/18	214.09	4433.06
					8/6/18	214.37	4432.78
					2/11/19	214.57	4432.58
					8/20/19	215.1	4432.05
					2/20/20	215.46	4431.69
					8/5/20	215.73	4431.42
BMO-2010-1M	219957	605581.263	3469935.750	4718.55	9/7/10	224.13	4494.42
					11/10/10	222.97	4495.58
					2/11/11	222.01	4496.54
					5/12/11	223.08	4495.47
					8/31/11	224.38	4494.17
					12/13/11	222.86	4495.69
					2/8/12	222.97	4495.58
					4/24/12	223.87	4494.68
					7/9/12	225.05	4493.50
					10/17/12	225.63	4492.92
					2/13/13	226.85	4491.70
					5/8/13	227.45	4491.10
					8/15/13	228.10	4490.45
					11/4/13	224.41	4494.14
					2/12/14	222.90	4495.65
					6/2/14	222.80	4495.75
					8/4/14	223.14	4495.41
					11/12/14	219.47	4499.08
					2/5/15	214.19	4504.36
					9/9/15	211.68	4506.87
					3/16/16	210.91	4507.64
					8/25/16	212.23	4506.32
					3/7/17	212.69	4505.86
					7/12/17	214.02	4504.53
					2/1/18	213.31	4505.24
					8/7/18	214.94	4503.61
					2/11/19	213.87	4504.68
					7/30/19	214.78	4503.77
					2/5/20	213.19	4505.36
					7/20/20	211.73	4506.82

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-2M	219958	605685.549	3470564.646	4746.16	9/7/10	264.13	4482.03
					11/11/10	263.94	4482.22
					2/10/11	264.13	4482.03
					5/13/11	266.97	4479.19
					7/14/11	268.05	4478.11
					12/13/11	270.98	4475.18
					1/30/12	271.50	4474.66
					4/18/12	272.31	4473.85
					7/9/12	273.20	4472.96
					10/17/12	274.27	4471.89
					2/13/13	275.52	4470.64
					5/8/13	276.05	4470.11
					8/15/13	278.76	4467.40
					11/4/13	273.26	4472.90
					2/12/14	271.44	4474.72
					5/8/14	270.65	4475.51
					8/14/14	270.78	4475.38
					11/12/14	263.19	4482.97
					2/5/15	259.84	4486.32
					9/14/15	260.92	4485.24
					3/16/16	261.81	4484.35
					9/13/16	264.66	4481.50
					3/7/17	265.47	4480.69
					7/12/17	267.14	4479.02
					2/1/18	266.24	4479.92
					8/7/18	268.92	4477.24
					2/11/19	268.25	4477.91
					7/30/19	269.21	4476.95
					2/20/20	265.12	4481.04
					7/21/20	262.38	4483.78
BMO-2010-3B	219970	599977.962	3468347.363	4550.59	7/28/10	115.38	4435.21
					11/10/10	115.80	4434.79
					1/20/11	115.46	4435.13
					4/7/11	116.11	4434.48
					7/13/11	117.30	4433.29
					10/13/11	117.72	4432.87
					2/2/12	117.18	4433.41
					4/24/12	117.92	4432.67
					7/5/12	118.84	4431.75
					10/18/12	119.13	4431.46
					1/16/13	118.89	4431.70
					4/16/13	119.36	4431.23
					7/23/13	120.02	4430.57
					10/8/13	119.63	4430.96
					1/15/14	118.96	4431.63
					5/13/14	119.40	4431.19
					7/15/14	120.06	4430.53
					10/14/14	119.16	4431.43
					1/28/15	118.46	4432.13
					5/18/15	118.49	4432.10
					7/22/15	118.81	4431.78
					10/6/15	118.06	4432.53
					2/2/16	117.39	4433.20
					7/12/16	119.21	4431.38
					1/18/17	119.89	4430.70
					7/11/17	120.51	4430.08
					1/8/18	119.84	4430.75
					7/10/18	121.45	4429.14
					1/8/19	121.92	4428.67
					7/16/19	122.49	4428.10
					1/6/20	122.64	4427.95
					8/4/20	123.25	4427.34

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2010-3M	219969	599970.801	3468353.543	4550.53	7/30/10	118.63	4431.90
					11/10/10	118.75	4431.78
					1/20/11	118.32	4432.21
					4/7/11	119.09	4431.44
					8/25/11	120.74	4429.79
					10/13/11	120.67	4429.86
					2/2/12	119.91	4430.62
					4/24/12	120.93	4429.60
					7/5/12	122.05	4428.48
					10/18/12	122.06	4428.47
					1/16/13	121.86	4428.67
					4/16/13	122.26	4428.27
					7/23/13	122.97	4427.56
					10/8/13	121.91	4428.62
					1/15/14	120.91	4429.62
					5/13/14	121.90	4428.63
					7/15/14	121.92	4428.61
					10/14/14	121.87	4428.66
					1/28/15	120.63	4429.90
					5/18/15	120.48	4430.05
					7/22/15	120.42	4430.11
					10/6/15	119.44	4431.09
					2/2/16	118.65	4431.88
					7/12/16	121.56	4428.97
					1/18/17	122.27	4428.26
					7/11/17	122.85	4427.68
					1/8/18	121.24	4429.29
					7/10/18	124.08	4426.45
					1/8/19	123.97	4426.56
					7/16/19	124.81	4425.72
					1/6/20	124.82	4425.71
					8/4/20	125.96	4424.57
BMO-2012-1M	221388	606097.384	3469746.747	4719.76	11/13/12	231.90	4487.86
					2/27/13	233.20	4486.56
					5/8/13	233.97	4485.79
					8/14/13	233.96	4485.80
					11/1/13	230.44	4489.32
					2/13/14	229.85	4489.91
					5/8/14	229.89	4489.87
					7/22/14	229.94	4489.82
					11/13/14	225.37	4494.39
					2/4/15	222.57	4497.19
					9/10/15	221.60	4498.16
					3/3/16	214.86	4504.90
					8/17/16	215.57	4504.19
					3/2/17	216.10	4503.66
					7/24/17	217.59	4502.17
					8/21/17	217.55	4502.21
					2/13/18	217.58	4502.18
					7/16/18	219.60	4500.16
					1/29/19	218.63	4501.13
					7/31/19	220.01	4499.75
					2/4/20	218.70	4501.06
					7/21/20	216.17	4503.59

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-1BL	917394	600563.194	3468234.798	4557.18	11/7/14	123.03	4434.15
				4558.45	1/29/15	123.53	4434.92
					4/15/15	123.45	4435.00
					5/18/15	123.93	4434.52
					7/29/15	124.22	4434.23
					10/7/15	123.58	4434.87
					2/4/16	123.17	4435.28
					4/6/16	123.61	4434.84
					7/14/16	124.85	4433.60
					11/2/16	124.93	4433.52
					1/24/17	124.57	4433.88
					7/13/17	126.19	4432.26
					1/10/18	125.47	4432.98
					7/12/18	127.11	4431.34
					1/10/19	126.62	4431.83
					7/18/19	127.19	4431.26
					1/8/20	127.10	4431.35
					8/6/20	127.50	4430.95
BMO-2014-1BU	917393	600570.805	3468231.440	4557.18	11/13/14	123.51	4433.67
				4558.54	1/28/15	123.74	4434.80
					4/15/15	123.90	4434.64
					5/18/15	124.42	4434.12
					7/29/15	124.65	4433.89
					10/7/15	123.97	4434.57
					2/4/16	123.43	4435.11
					4/6/16	123.90	4434.64
					7/14/16	125.23	4433.31
					11/2/16	125.32	4433.22
					1/24/17	124.86	4433.68
					7/13/17	126.42	4432.12
					1/10/18	125.73	4432.81
					7/12/18	127.19	4431.35
					1/10/19	126.86	4431.68
					7/18/19	127.48	4431.06
					1/8/20	127.39	4431.15
					8/6/20	127.73	4430.81
BMO-2014-2BL	917452	600784.872	3468183.921	4560.31	11/20/14	126.15	4434.16
				4561.80	1/29/15	126.74	4435.06
					4/15/15	126.70	4435.10
					5/18/15	127.18	4434.62
					7/29/15	127.43	4434.37
					10/7/15	126.90	4434.90
					2/4/16	126.68	4435.12
					4/6/16	126.77	4435.03
					7/14/16	127.85	4433.95
					11/2/16	128.39	4433.41
					1/24/17	127.73	4434.07
					9/6/17	128.56	4433.24
					1/10/18	129.09	4432.71
					7/12/18	129.61	4432.19
					1/10/19	129.96	4431.84
					7/18/19	130.42	4431.38
					1/8/20	130.43	4431.37
					8/6/20	130.73	4431.07

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-2BU	917453	600788.520	3468192.762	4560.31	12/1/14	126.73	4433.58
				4561.85	1/30/15	126.73	4435.12
					4/15/15	126.65	4435.20
					5/18/15	127.21	4434.64
					7/29/15	127.49	4434.36
					10/7/15	126.94	4434.91
					2/4/16	126.56	4435.29
					4/6/16	126.81	4435.04
					7/14/16	127.93	4433.92
					11/2/16	128.37	4433.48
					1/24/17	127.75	4434.10
					7/13/17	129.07	4432.78
					1/10/18	129.01	4432.84
					7/12/18	129.67	4432.18
					1/10/19	129.99	4431.86
					7/18/19	130.46	4431.39
					1/8/20	130.35	4431.50
					8/6/20	130.75	4431.10
BMO-2014-3BL	917527	600822.399	3467786.416	4572.213	2/13/15	136.57	4435.64
				4573.765	4/15/15	138.35	4435.42
					5/18/15	138.64	4435.13
					7/29/15	138.86	4434.91
					10/7/15	138.51	4435.26
					2/4/16	138.14	4435.63
					4/6/16	138.39	4435.38
					7/14/16	139.44	4434.33
					11/2/16	139.66	4434.11
					1/25/17	139.54	4434.23
					7/13/17	140.74	4433.03
					1/11/18	140.48	4433.29
					1/12/18	140.56	4433.21
					7/12/18	141.74	4432.03
					1/10/19	142.01	4431.76
					7/18/19	142.49	4431.28
					1/9/20	142.76	4431.01
					8/6/20	142.99	4430.78
BMO-2014-3BU	917494	600810.534	3467787.733	4572.213	2/24/15	137.91	4434.30
				4574.887	4/15/15	139.45	4435.44
					5/18/15	139.74	4435.15
					7/29/15	140.03	4434.86
					10/7/15	139.64	4435.25
					2/4/16	139.20	4435.69
					4/6/16	139.48	4435.41
					7/14/16	140.55	4434.34
					11/2/16	140.83	4434.06
					1/25/17	140.66	4434.23
					7/13/17	140.80	4434.09
					1/11/18	141.50	4433.39
					1/12/18	141.52	4433.37
					7/12/18	141.65	4433.24
					1/10/19	143.12	4431.77
					7/18/19	143.56	4431.33
					1/9/20	143.84	4431.05
					8/6/20	144.08	4430.81

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2014-4B	917620	600508.792	3468581.267	4566.453	3/4/15	132.43	4434.02
				4567.672	4/14/15	133.60	4434.07
					5/18/15	133.85	4433.82
					7/23/15	134.27	4433.40
					10/6/15	133.74	4433.93
					2/3/16	133.04	4434.63
					4/5/16	133.25	4434.42
					7/13/16	134.64	4433.03
					11/1/16	134.87	4432.80
					1/23/17	134.41	4433.26
					7/12/17	135.68	4431.99
					1/9/18	135.05	4432.62
					7/11/18	136.51	4431.16
					1/9/19	136.53	4431.14
					7/17/19	137.00	4430.67
					1/7/20	137.04	4430.63
					8/5/20	137.37	4430.30
BMO-2014-4BL	917619	600498.091	3468566.229	4566.453	3/1/15	131.89	4434.56
				4567.045	4/14/15	132.95	4434.10
					5/18/15	133.23	4433.82
					7/23/15	133.67	4433.38
					10/6/15	133.16	4433.89
					2/3/16	132.43	4434.62
					4/5/16	132.67	4434.38
					8/25/16	133.82	4433.23
					11/1/16	134.30	4432.75
					1/23/17	133.85	4433.20
					7/12/17	135.10	4431.95
					1/9/18	134.47	4432.58
					7/11/18	136.07	4430.98
					1/9/19	135.95	4431.10
					7/17/19	136.44	4430.61
					1/7/20	136.46	4430.59
					8/5/20	136.86	4430.19
BMO-2015-1B	917622	600261.991	3468563.389	4561.382	3/15/15	128.05	4433.33
				4562.063	4/14/15	129.10	4432.96
					5/18/15	129.24	4432.82
					7/23/15	129.62	4432.44
					10/6/15	129.02	4433.04
					2/3/16	128.41	4433.65
					4/5/16	128.45	4433.61
					8/25/16	130.05	4432.01
					11/1/16	130.38	4431.68
					1/23/17	130.28	4431.78
					7/12/17	131.14	4430.92
					1/9/18	130.50	4431.56
					7/11/18	131.87	4430.19
					1/9/19	132.24	4429.82
					7/17/19	132.79	4429.27
					1/7/20	132.91	4429.15
					8/5/20	133.35	4428.71

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BMO-2015-1BL	917621	600272.479	3468583.092	4561.382	3/12/15	129.10	4432.28
				4563.402	4/14/15	130.45	4432.95
					5/18/15	130.59	4432.81
					7/23/15	130.98	4432.42
					10/6/15	130.30	4433.10
					2/3/16	129.75	4433.65
					4/5/16	129.81	4433.59
					7/13/16	131.31	4432.09
					11/1/16	131.66	4431.74
					1/23/17	131.58	4431.82
					7/12/17	132.46	4430.94
					1/9/18	131.79	4431.61
					7/11/18	133.21	4430.19
					1/9/19	133.52	4429.88
					7/17/19	134.09	4429.31
					1/7/20	134.18	4429.22
					8/5/20	134.62	4428.78
BMO-2015-2B	917827	600267.799	3468996.635	4579.624	3/19/15	147.17	4432.45
				4582.082	4/14/15	149.05	4433.03
					5/18/15	149.18	4432.90
					7/23/15	149.47	4432.61
					10/6/15	148.94	4433.14
					2/3/16	148.45	4433.63
					4/5/16	148.37	4433.71
					7/13/16	149.88	4432.20
					11/1/16	150.30	4431.78
					1/23/17	150.12	4431.96
					7/12/17	150.99	4431.09
					1/9/18	150.43	4431.65
					7/11/18	151.72	4430.36
					1/9/19	152.10	4429.98
					7/17/19	152.71	4429.37
					1/7/20	152.82	4429.26
					8/5/20	153.31	4428.77
BMO-2015-2BL	917828	600252.069	3468983.910	4579.624	3/26/15	146.43	4433.19
				4580.644	4/14/15	147.60	4433.04
					5/18/15	147.82	4432.82
					7/23/15	148.12	4432.52
					10/6/15	147.56	4433.08
					2/3/16	147.06	4433.58
					4/5/16	146.99	4433.65
					7/13/16	148.52	4432.12
					11/1/16	149.00	4431.64
					1/23/17	148.80	4431.84
					7/12/17	149.64	4431.00
					1/9/18	149.09	4431.55
					7/11/18	150.39	4430.25
					1/9/19	150.76	4429.88
					7/17/19	151.37	4429.27
					1/7/20	151.49	4429.15
					8/5/20	151.95	4428.69
BOOTH	914931	601132.466	3468049.945	4568.21	1/15/13	131.47	4436.74
					4/19/13	132.04	4436.17
					10/18/13	132.56	4435.65

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
BURKE	212268	602230.087	3473029.816	4856.30	4/22/08	606.55	4249.75
					8/5/08	605.86	4250.44
					10/28/08	604.88	4251.42
					2/19/09	603.91	4252.39
					4/28/09	603.70	4252.60
					8/19/09	602.66	4253.64
					10/10/13	601.06	4255.24
					1/8/14	592.90	4263.40
					4/16/14	592.51	4263.79
					7/21/14	592.35	4263.95
					10/21/14	594.68	4261.62
					8/3/15	587.06	4269.24
COB MW-1	903992	603153.259	3469889.889	4683.26	2/22/08	232.47	4450.79
					5/20/08	233.12	4450.14
					7/30/08	233.37	4449.89
					10/23/08	233.62	4449.64
					2/12/09	234.05	4449.21
					4/21/09	234.99	4448.27
					7/22/09	234.34	4448.92
					10/22/09	234.69	4448.57
					2/4/10	235.15	4448.11
					4/20/10	235.47	4447.79
					7/13/10	235.68	4447.58
					7/14/11	236.98	4446.28
					7/12/12	238.24	4445.02
					2/5/13	239.11	4444.15
					7/11/13	239.67	4443.59
					7/9/14	240.03	4443.23
					2/4/15	239.46	4443.80
					7/27/15	239.83	4443.43
COB MW-1B	225906	603153.259 [2]	3469889.889 [2]	4683.26 [2]	7/20/16	240.06	4443.20
					1/19/17	239.90	4443.36
					7/19/17	240.27	4442.99

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COB MW-2	903984	600973.257	3468114.836	4566.21	2/22/08	122.85	4443.36
					5/20/08	123.00	4443.21
					7/30/08	123.53	4442.68
					10/23/08	124.02	4442.19
					2/12/09	123.39	4442.82
					4/23/09	124.16	4442.05
					7/22/09	124.91	4441.30
					10/22/09	125.33	4440.88
					3/3/10	124.93	4441.28
					4/26/10	125.47	4440.74
					7/13/10	126.54	4439.67
					1/20/11	126.46	4439.75
					7/14/11	128.17	4438.04
					1/31/12	128.04	4438.17
					7/12/12	129.58	4436.63
					1/9/13	129.28	4436.93
					7/25/13	130.21	4436.00
					1/6/14	130.11	4436.10
					7/9/14	131.32	4434.89
					2/4/15	126.60	4439.61
					5/28/15	130.39	4435.82
					7/27/15	130.32	4435.89
					10/7/15	129.96	4436.25
					1/11/16	129.56	4436.65
					7/20/16	130.90	4435.31
					1/19/17	130.99	4435.22
					7/19/17	131.90	4434.31
					1/11/18	131.72	4434.49
					7/17/18	132.56	4433.65
					1/15/19	133.13	4433.08
					7/24/19	133.54	4432.67
					1/14/20	133.82	4432.39
					8/11/20	134.02	4432.19
COB MW-3	906823	599169.225	3468726.000	4538.63	2/28/08	120.84	4417.79
					5/20/08	125.00	4413.63
					7/30/08	118.50	4420.13
					10/23/08	117.93	4420.70
					2/12/09	110.91	4427.72
					4/23/09	125.13	4413.50
					7/22/09	124.09	4414.54
					10/22/09	118.03	4420.60
					3/3/10	120.14	4418.49
					4/26/10	123.12	4415.51
					7/13/10	128.60	4410.03
					7/14/11	132.41	4406.22
					7/12/12	133.89	4404.74
					2/5/13	123.68	4414.95
					7/25/13	129.05	4409.58
					1/6/14	127.52	4411.11
					7/9/14	124.19	4414.44
					2/4/15	115.11	4423.52
					7/27/15	118.39	4420.24
					10/7/15	114.37	4424.26
					1/11/16	112.93	4425.70
					7/20/16	120.25	4418.38
					1/27/17	126.14	4412.49
					7/19/17	120.70	4417.93
					1/11/18	116.02	4422.61
					7/17/18	125.77	4412.86
					1/15/19	125.53	4413.10
					7/24/19	127.73	4410.90
					1/14/20	123.27	4415.36
					8/11/20	137.35	4401.28

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COB WL	593116	606357.506	3472502.012	4832.06	2/22/08	56.50	4775.56
					5/20/08	57.50	4774.56
					7/30/08	58.64	4773.42
					10/23/08	58.76	4773.30
					2/12/09	58.89	4773.17
					4/23/09	59.73	4772.33
					7/22/09	61.27	4770.79
					10/22/09	62.82	4769.24
					3/3/10	65.24	4766.82
					4/26/10	66.13	4765.93
					7/13/10	67.52	4764.54
					7/14/11	73.86	4758.20
					7/12/12	78.85	4753.21
					2/5/13	82.41	4749.65
					7/25/13	81.36	4750.70
					7/9/14	78.12	4753.94
					2/4/15	58.14	4773.92
					7/27/15	80.09	4751.97
					1/11/16	81.72	4750.34
					7/20/16	84.80	4747.26
					1/25/17	87.06	4745.00
					7/14/17	89.96	4742.10
					1/11/18	89.87	4742.19
					7/9/18	91.48	4740.58
					1/7/19	91.73	4740.33
					7/15/19	92.89	4739.17
					1/7/20	93.72	4738.34
					8/4/20	94.79	4737.27
COLLINS	565260	602551.286	3471341.335	4733.72	2/12/08	289.47	4444.25
					5/29/08	288.53	4445.19
					7/31/08	290.08	4443.64
					10/20/08	290.15	4443.57
					4/21/09	290.66	4443.06
					7/20/09	290.78	4442.94
					10/20/09	290.52	4443.20
					2/2/10	291.64	4442.08
					4/23/10	291.96	4441.76
					7/20/10	292.21	4441.51

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
COOPER C	637069	601349.987	3468913.011	4599.14	3/4/08	155.08	4444.06
					5/5/08	155.34	4443.80
					7/15/08	156.01	4443.13
					10/16/08	155.85	4443.29
					1/27/09	155.62	4443.52
					4/14/09	155.86	4443.28
					7/14/09	156.50	4442.64
					10/12/09	156.89	4442.25
					1/27/10	157.03	4442.11
					4/22/10	157.31	4441.83
					7/21/10	158.00	4441.14
					10/20/10	158.41	4440.73
					1/17/11	158.37	4440.77
					4/11/11	158.74	4440.40
					8/26/11	159.51	4439.63
					10/13/11	159.81	4439.33
					2/1/12	159.80	4439.34
					4/25/12	160.26	4438.88
					7/12/12	160.88	4438.26
					10/10/12	161.10	4438.04
					2/27/13	161.40	4437.74
					5/8/13	161.70	4437.44
					8/13/13	162.07	4437.07
					11/1/13	162.23	4436.91
					2/10/14	161.90	4437.24
					5/7/14	162.63	4436.51
					7/21/14	162.67	4436.47
					11/13/14	162.48	4436.66
					5/19/15	162.14	4437.00
					9/10/15	162.14	4437.00
					10/21/15	162.17	4436.97
					3/16/16	161.76	4437.38
					8/18/16	162.78	4436.36
					7/13/17	162.68	4436.46
					2/5/18	163.66	4435.48
					7/25/18	164.42	4434.72
					1/28/19	164.72	4434.42
					8/19/19	165.43	4433.71
					8/17/20	165.98	4433.16

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
DODSON	644927	605594.560	3469063.772	4686.34	5/12/08	81.38	4604.96
					7/24/08	82.20	4604.14
					10/13/08	81.82	4604.52
					1/22/09	82.33	4604.01
					4/9/09	82.84	4603.50
					7/8/09	86.88	4599.46
					10/6/09	87.27	4599.07
					1/21/10	88.54	4597.80
					4/19/10	89.53	4596.81
					7/20/10	90.79	4595.55
					10/18/10	90.33	4596.01
					1/19/11	90.34	4596.00
					4/5/11	91.05	4595.29
					7/12/11	92.07	4594.27
					10/10/11	93.11	4593.23
					1/31/12	93.68	4592.66
					4/12/12	94.19	4592.15
					10/4/12	97.80	4588.54
					1/18/13	99.73	4586.61
					4/9/13	98.09	4588.25
					7/9/13	98.38	4587.96
					10/9/13	92.69	4593.65
					1/9/14	93.21	4593.13
					4/15/14	94.64	4591.70
					7/14/14	95.43	4590.91
					10/16/14	97.22	4589.12
					1/26/15	95.81	4590.53
					7/23/15	97.32	4589.02
					1/12/16	99.34	4587.00
					7/18/16	103.91	4582.43
					7/17/17	103.07	4583.27
					1/17/18	101.44	4584.90
					7/30/18	117.18	4569.16
					1/15/19	105.08	4581.26
					7/9/19	104.16	4582.18
					1/15/20	101.82	4584.52
					8/13/20	99.10	4587.24
DOUGLASS 791	592791	607632.993	3470222.677	4703.27	2/13/08	22.11	4681.16
					5/13/08	24.60	4678.67
					7/22/08	27.00	4676.27
					10/16/08	23.60	4679.67
					1/19/09	26.51	4676.76
					4/8/09	28.53	4674.74
					7/7/09	31.04	4672.23
					10/5/09	31.49	4671.78
					1/21/10	34.55	4668.72
					4/19/10	36.40	4666.87
					7/12/10	36.74	4666.53
					1/18/11	25.96	4677.31
					1/30/12	27.72	4675.55
					4/11/12	29.99	4673.28
					7/5/12	32.67	4670.60
					1/9/13	27.24	4676.03
					7/8/13	32.70	4670.57
					1/6/14	23.56	4679.71
					7/7/14	28.22	4675.05
					7/20/15	30.86	4672.41
					7/11/16	32.09	4671.18
					7/13/17	31.58	4671.69
					8/1/18	36.48	4666.79
					7/11/19	27.35	4675.92
					8/14/20	27.69	4675.58

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
DOUGLASS 792	592792	607607.541	3469829.115	4681.73	2/13/08	87.76	4593.97
					5/13/08	87.21	4594.52
					7/22/08	86.90	4594.83
					10/16/08	86.45	4595.28
					1/20/09	86.26	4595.47
					4/8/09	86.04	4595.69
					7/7/09	86.16	4595.57
					10/5/09	86.19	4595.54
					1/21/10	86.45	4595.28
					4/19/10	87.19	4594.54
					7/12/10	87.55	4594.18
					1/18/11	87.8	4593.93
					7/12/11	88.38	4593.35
					1/30/12	88.92	4592.81
					4/11/12	89.18	4592.55
					7/5/12	95.64	4586.09
					1/9/13	82.60	4599.13
					7/8/13	83.66	4598.07
					1/6/14	83.55	4598.18
					7/7/14	82.43	4599.30
					7/20/15	82.57	4599.16
					7/11/16	83.48	4598.25
					7/13/17	84.43	4597.30
					8/1/18	85.76	4595.97
					7/11/19	85.39	4596.34
					8/14/20	85.28	4596.45
EAST	599796	607076.365	3468712.215	4626.01	2/8/08	50.20	4575.81
					5/14/08	52.45	4573.56
					7/23/08	52.16	4573.85
					10/14/08	52.19	4573.82
					1/20/09	50.52	4575.49
					4/8/09	51.91	4574.10
					7/13/09	56.93	4569.08
					10/8/09	60.95	4565.06
					1/25/10	59.35	4566.66
					4/21/10	58.88	4567.13
					7/14/10	61.86	4564.15
					10/20/10	61.20	4564.81
					1/18/11	59.79	4566.22
					4/5/11	59.73	4566.28
					7/12/11	63.79	4562.22
					10/12/11	63.64	4562.37
					1/31/12	63.82	4562.19
					4/11/12	65.72	4560.29
					7/9/12	70.50	4555.51
					10/4/12	73.34	4552.67
					1/17/13	75.04	4550.97
					4/9/13	78.05	4547.96
					7/9/13	78.37	4547.64
					10/15/13	72.38	4553.63
					1/14/14	71.88	4554.13
					4/8/14	71.03	4554.98
					7/8/14	72.03	4553.98
					10/22/14	67.75	4558.26
					7/24/15	74.64	4551.37
					7/12/16	65.02	4560.99
					7/27/17	67.11	4558.90
					7/30/18	77.95	4548.06
					7/17/19	79.28	4546.73
					8/13/20	77.26	4548.75

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ECHAVE	219449	599701	3470168	4648	2/1/12	216.71	4431.29
					1/18/13	218.41	4429.59
					7/28/17	220.49	4427.51
					2/23/18	219.94	4428.06
					7/17/18	220.37	4427.63
					1/15/19	220.49	4427.51
					7/23/19	220.93	4427.07
					1/21/20	221.16	4426.84
					8/10/20	221.50	4426.50
EPPELE 641	805641	607165.354	3469229.942	4642.86	3/11/08	29.52	4613.34
					5/12/08	30.64	4612.22
					7/21/08	25.59	4617.27
					10/14/08	24.53	4618.33
					1/21/09	27.35	4615.51
					4/8/09	29.08	4613.78
					7/9/09	31.51	4611.35
					10/7/09	29.92	4612.94
					7/20/10	50.38	4592.48
					10/20/10	48.88	4593.98
					1/17/11	51.13	4591.73
					4/5/11	53.81	4589.05
					7/11/11	56.82	4586.04
					10/12/11	37.62	4605.24
					1/31/12	46.80	4596.06
					4/11/12	52.07	4590.79
					7/6/12	62.39	4580.47
					10/3/12	71.66	4571.20
					1/17/13	59.73	4583.13
					4/8/13	83.98	4558.88
					7/9/13	92.84	4550.02
					10/15/13	28.50	4614.36
					1/14/14	49.32	4593.54
					4/8/14	52.03	4590.83
					7/8/14	66.62	4576.24
					10/21/14	24.56	4618.30
					7/24/15	41.32	4601.54
					7/12/16	38.41	4604.45
					7/27/17	48.58	4594.28
					7/31/18	62.29	4580.57
					7/19/19	29.30	4613.56
FLEMING	218386	605565.701	3469342.523	4693.68	2/18/09	299.30	4394.38
					4/8/09	301.81	4391.87
					7/7/09	304.60	4389.08
					10/6/09	307.84	4385.84
					1/21/10	311.73	4381.95
					4/20/10	315.26	4378.42
					7/15/10	318.32	4375.36
					11/4/10	349.62	4344.06
					1/19/11	356.89	4336.79
					7/12/11	364.72	4328.96
					2/3/12	370.84	4322.84
					7/9/12	373.86	4319.82
					1/18/13	373.96	4319.72
					7/17/13	374.88	4318.80
					1/10/14	379.63	4314.05
					7/17/14	372.97	4320.71
FRANCO 101	500101	602848.756	3468830.905	4636.75	4/10/13	196.05	4440.70
					7/10/13	196.19	4440.56
					10/16/13	196.65	4440.10
					1/14/14	196.77	4439.98
					4/8/14	196.86	4439.89
					7/14/14	197.08	4439.67
					10/8/14	197.91	4438.84

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
FRANCO 383	221383	602817.854	3468831.563	4636.88	9/13/12	195.19	4441.69
					10/5/12	195.00	4441.88
					12/3/12	196.70	4440.18
					1/15/13	196.30	4440.58
					2/6/13	195.62	4441.26
					3/7/13	196.20	4440.68
					4/10/13	196.25	4440.63
					7/10/13	196.13	4440.75
					10/16/13	196.30	4440.58
					1/14/14	196.46	4440.42
					4/8/14	196.89	4439.99
					7/14/14	196.87	4440.01
					10/8/14	196.86	4440.02
					7/27/15	198.11	4438.77
					7/18/16	197.32	4439.56
					7/20/17	198.37	4438.51
					7/27/18	198.73	4438.15
				4635.79	7/24/19	199.56	4436.23
					8/12/20	200.58	4435.21
FULTZ	212447	607153.306	3469063.892	4642.92	10/22/08	40.59	4602.33
					1/21/09	40.66	4602.26
					4/9/09	42.88	4600.04
					7/13/09	54.94	4587.98
					10/8/09	56.16	4586.76
					1/25/10	53.45	4589.47
					4/20/10	63.82	4579.10
					7/14/10	119.86	4523.06
GARNER 557	558557	602659.240	3468962.415	4638.45	2/21/08	191.05	4447.40
					5/5/08	191.28	4447.17
					7/15/08	191.44	4447.01
					10/16/08	191.83	4446.62
					1/28/09	191.92	4446.53
					4/15/09	192.09	4446.36
					7/16/09	192.52	4445.93
					10/14/09	192.82	4445.63
					2/2/10	193.33	4445.12
					4/22/10	193.49	4444.96
					7/20/10	193.93	4444.52
					10/19/10	194.29	4444.16
					1/19/11	194.61	4443.84
					4/6/11	194.86	4443.59
					7/15/11	195.25	4443.20
					10/11/11	195.72	4442.73
					2/2/12	196.09	4442.36
					4/13/12	196.30	4442.15
					7/11/12	196.72	4441.73
					10/5/12	197.08	4441.37
					1/11/13	197.51	4440.94
					4/15/13	197.76	4440.69
					7/10/13	197.87	4440.58
					10/11/13	198.27	4440.18
					1/17/14	198.46	4439.99
					4/15/14	198.58	4439.87
					8/6/20	202.36	4436.09

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
GARNER 635	587635	602665.352	3468967.902	4640.74	2/4/08	193.20	4447.54
					5/5/08	195.90	4444.84
					7/15/08	193.58	4447.16
					10/15/08	194.35	4446.39
					1/28/09	194.80	4445.94
					4/15/09	195.54	4445.20
					7/16/09	194.88	4445.86
					10/14/09	196.36	4444.38
					2/2/10	195.32	4445.42
					4/22/10	196.01	4444.73
					8/25/10	195.57	4445.17
					10/19/10	225.83	4414.91
					1/19/11	196.89	4443.85
					4/6/11	197.40	4443.34
					7/15/11	198.07	4442.67
					10/11/11	197.75	4442.99
					2/2/12	199.50	4441.24
					4/13/12	200.40	4440.34
					7/11/12	199.15	4441.59
					10/5/12	202.71	4438.03
					1/11/13	199.38	4441.36
					4/15/13	200.53	4440.21
					7/10/13	200.13	4440.61
					10/11/13	200.27	4440.47
					1/17/14	201.83	4438.91
					4/15/14	200.67	4440.07
					7/26/17	202.02	4438.72
					1/16/18	202.07	4438.67
					7/24/18	205.65	4435.09
					1/15/19	203.03	4437.71
					7/15/19	208.66	4432.08
					8/6/20	204.32	4436.42
GGOOSE 547	628547	606256.657	3469820.260	4717.11	5/21/08	220.91	4496.20
					8/15/08	238.48	4478.63
					10/29/08	235.90	4481.21
					2/24/09	236.13	4480.98
					5/14/09	236.17	4480.94
					8/19/09	236.01	4481.10
					8/19/09	236.01	4481.10
					11/11/09	237.66	4479.45
					3/9/10	238.84	4478.27
					4/27/10	239.17	4477.94
GL-03	539782	604386.940	3473747.943	4924.31	5/22/08	660.15	4264.16
					8/4/08	659.79	4264.52
					12/2/08	658.25	4266.06
					2/26/09	658.62	4265.69
					5/5/09	657.23	4267.08
					8/12/09	656.56	4267.75
					8/12/09	656.56	4267.75
					11/10/09	655.31	4269.00
					3/2/10	655.52	4268.79
					4/9/10	655.35	4268.96
					7/7/10	655.05	4269.26
					2/1/12	651.72	4272.59

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
GOAR RANCH	610695	602454.751	3468892.471	4631.13	2/21/08	183.90	4447.23
					5/5/08	188.11	4443.02
					7/16/08	184.41	4446.72
					10/22/08	184.68	4446.45
					1/27/09	184.87	4446.26
					4/15/09	184.96	4446.17
					7/7/09	185.36	4445.77
					10/12/09	185.72	4445.41
					2/2/10	186.25	4444.88
					4/22/10	186.44	4444.69
					7/13/10	186.76	4444.37
					1/19/11	187.52	4443.61
					7/12/11	188.24	4442.89
					2/6/12	189.02	4442.11
					9/13/12	190.08	4441.05
					1/11/13	190.48	4440.65
					9/18/13	191.21	4439.92
					1/17/14	191.48	4439.65
					7/21/14	191.73	4439.40
					2/2/15	191.44	4439.69
					8/4/15	191.74	4439.39
					1/11/16	191.68	4439.45
					7/25/16	191.83	4439.30
					1/17/17	192.43	4438.70
					7/12/17	192.84	4438.29
					1/15/18	193.12	4438.01
					7/17/18	193.56	4437.57
					1/7/19	194.16	4436.97
					7/8/19	194.68	4436.45
					1/21/20	195.19	4435.94
					7/20/20	195.34	4435.79

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
HOBAN	805290	601705.848	3468880.329	4607.60	2/27/08	163.05	4444.55
					5/7/08	163.28	4444.32
					7/14/08	163.87	4443.73
					10/16/08	163.95	4443.65
					1/28/09	163.82	4443.78
					4/15/09	164.16	4443.44
					7/14/09	164.59	4443.01
					10/15/09	165.00	4442.60
					3/2/10	165.32	4442.28
					5/18/10	165.71	4441.89
					7/20/10	166.17	4441.43
					10/19/10	166.45	4441.15
					8/31/11	167.76	4439.84
					12/14/11	168.13	4439.47
					2/1/12	168.09	4439.51
					4/19/12	168.32	4439.28
					7/11/12	169.10	4438.50
					10/17/12	169.40	4438.20
					2/15/13	169.70	4437.90
					5/8/13	169.95	4437.65
					8/13/13	170.31	4437.29
					11/1/13	170.54	4437.06
					2/10/14	170.22	4437.38
					5/7/14	170.61	4436.99
					7/21/14	170.90	4436.70
					11/13/14	170.81	4436.79
					2/4/15	170.26	4437.34
					5/19/15	170.37	4437.23
					9/10/15	170.57	4437.03
					10/21/15	170.58	4437.02
					3/16/16	170.33	4437.27
					8/18/16	171.05	4436.55
					3/7/17	171.41	4436.19
					7/13/17	172.00	4435.60
					2/5/18	172.12	4435.48
					7/25/18	172.74	4434.86
					1/28/19	173.29	4434.31
					8/7/19	173.88	4433.72
					2/20/20	174.29	4433.31
					9/8/20	174.47	4433.13
HOWARD 312	221312	601308.920	3468772.630	4594.9356	8/14/12	188.36	4406.58
					10/16/12	193.33	4401.61
					2/6/13	193.74	4401.20
					4/9/13	195.30	4399.64
					7/12/13	198.27	4396.67
					10/16/13	201.08	4393.86
					1/8/14	202.61	4392.33
					4/10/14	204.64	4390.30
					7/14/14	206.97	4387.97
					10/10/14	206.36	4388.58
					5/19/15	208.08	4386.86
					7/31/15	210.54	4384.40
					7/27/16	207.89	4387.05
					7/21/17	207.54	4387.40
					7/23/18	204.95	4389.99
					7/9/19	206.58	4388.36
					7/21/20	205.37	4389.57

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
HOWARD NR	NR	601281.159	3468770.377	4593.91	3/4/08	150.10	4443.81
					5/8/08	150.70	4443.21
					7/14/08	150.91	4443.00
					10/15/08	150.67	4443.24
					1/28/09	150.67	4443.24
					4/15/09	151.15	4442.76
					7/15/09	151.76	4442.15
					10/12/09	152.08	4441.83
					1/27/10	152.20	4441.71
					4/21/10	152.30	4441.61
					7/19/10	153.16	4440.75
					10/18/10	153.53	4440.38
					1/17/11	153.51	4440.40
					4/11/11	154.24	4439.67
					8/26/11	154.79	4439.12
					10/11/11	155.02	4438.89
					2/1/12	155.08	4438.83
					4/13/12	155.40	4438.51
					9/13/12	156.29	4437.62
					10/16/12	156.43	4437.48
					2/6/13	156.27	4437.64
					4/9/13	156.71	4437.20
					7/12/13	157.18	4436.73
					10/16/13	157.52	4436.39
					1/8/14	157.16	4436.75
					4/10/14	157.55	4436.36
					7/14/14	157.92	4435.99
					10/10/14	157.68	4436.23
					2/2/15	157.11	4436.80
					5/19/15	157.31	4436.60
					7/31/15	157.58	4436.33
					10/8/15	157.36	4436.55
					1/12/16	157.01	4436.90
					7/27/16	157.93	4435.98
					1/16/17	158.23	4435.68
					7/21/17	158.84	4435.07
					1/15/18	158.86	4435.05
					7/23/18	159.64	4434.27
					1/14/19	160.18	4433.73
					7/9/19	160.66	4433.25
					1/17/20	160.96	4432.95
					7/21/20	161.07	4432.84

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
KEEFER	209744	599879.175	3468119.015	4572.03	2/6/08	134.67	4437.36
					5/6/08	135.28	4436.75
					7/16/08	136.24	4435.79
					10/28/08	135.87	4436.16
					1/28/09	134.88	4437.15
					4/16/09	135.00	4437.03
					7/14/09	136.07	4435.96
					10/13/09	136.67	4435.36
					1/26/10	136.26	4435.77
					4/20/10	136.26	4435.77
					7/15/10	137.29	4434.74
					10/19/10	137.68	4434.35
					1/18/11	137.42	4434.61
					4/6/11	137.91	4434.12
					7/18/11	140.39	4431.64
					10/11/11	141.68	4430.35
					2/6/12	139.27	4432.76
					4/23/12	139.76	4432.27
					7/17/12	140.69	4431.34
					10/9/12	141.00	4431.03
					1/10/13	140.80	4431.23
					4/8/13	141.32	4430.71
					7/11/13	141.81	4430.22
					10/7/13	141.63	4430.40
					1/7/14	141.10	4430.93
					4/9/14	140.91	4431.12
					7/10/14	141.97	4430.06
					10/8/14	141.45	4430.58
					5/19/15	140.47	4431.56
					7/21/15	140.80	4431.23
					10/8/15	140.21	4431.82
					1/14/16	139.54	4432.49
					7/25/16	143.37	4428.66
					7/25/17	142.64	4429.39
					2/23/18	142.25	4429.78
					7/9/18	143.46	4428.57
					1/11/19	144.10	4427.93
					7/10/19	144.82	4427.21
					1/17/20	144.79	4427.24
					7/22/20	145.42	4426.61
LADD 251	520251	594788.933	3470348.534	4443.83	3/22/13	221.32	4222.51
					6/14/13	221.78	4222.05
					9/24/13	219.6	4224.23
					12/3/13	217.44	4226.39
					2/25/14	217.59	4226.24
					6/4/14	218.27	4225.56
					9/10/14	219.04	4224.79
					11/20/14	213.58	4230.25
					3/24/15	214.18	4229.65
					9/17/15	216.39	4227.44
					3/24/16	217.85	4225.98
					9/28/16	219.8	4224.03
					3/20/17	220.91	4222.92
					8/10/17	222.12	4221.71
					3/8/18	222.94	4220.89
					8/22/18	223.64	4220.19
					2/14/19	224.29	4219.54
					9/9/19	225.05	4218.78
					2/27/20	225.45	4218.38
					8/25/20	225.33	4218.50

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 538	505538	596790.675	3469638.573	4527.05	2/9/10	253.10	4273.95
					4/28/10	253.83	4273.22
					7/28/10	254.05	4273.00
					12/8/10	252.87	4274.18
					3/17/11	252.76	4274.29
					6/24/11	288.00	4239.05
					9/29/11	276.58	4250.47
					12/16/11	250.68	4276.37
					2/15/12	253.80	4273.25
					6/11/12	258.90	4268.15
					9/26/12	255.76	4271.29
					12/19/12	249.43	4277.62
					3/22/13	250.51	4276.54
					6/27/13	270.00	4257.05
					9/24/13	250.80	4276.25
					12/3/13	251.36	4275.69
					2/25/14	253.36	4273.69
					6/4/14	259.63	4267.42
					9/10/14	248.68	4278.37
					11/20/14	268.66	4258.39
					3/24/15	248.46	4278.59
					9/17/15	243.05	4284.00
					3/24/16	266.62	4260.43
					9/28/16	246.14	4280.91
					3/20/17	232.53	4294.52
					8/10/17	227.4	4299.65
					3/8/18	222.4	4304.65
					8/22/18	219.90	4307.15
					2/14/19	217.80	4309.25
					9/9/19	216.22	4310.83
					2/27/20	215.26	4311.79
					8/25/20	213.80	4313.25
LADD 635	224635	598724.834	3467541.096	4598.99	7/18/15	169.31	4429.68
					12/17/15	169.54	4429.45
					3/31/16	169.56	4429.43
					9/28/16	170.21	4428.78
					11/22/16	170.90	4428.09
					3/20/17	184.94	4414.05
					8/24/17	172.09	4426.90
					3/8/18	172.22	4426.77
					8/22/18	173.07	4425.92
					2/14/19	173.20	4425.79
					9/9/19	174.03	4424.96
					2/27/20	173.85	4425.14
					8/25/20	186.34	4412.65

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
LADD 837	519837	594757.700	3470817.194	4470.11	2/9/10	262.80	4207.31
					4/28/10	262.65	4207.46
					7/28/10	265.75	4204.36
					12/8/10	262.38	4207.73
					3/17/11	262.65	4207.46
					6/24/11	262.51	4207.60
					9/29/11	262.28	4207.83
					12/16/11	264.32	4205.79
					2/15/12	262.24	4207.87
					6/11/12	264.04	4206.07
					9/26/12	261.75	4208.36
					12/19/12	261.94	4208.17
					3/27/13	266.68	4203.43
					6/14/13	261.51	4208.60
					9/24/13	261.38	4208.73
					12/3/13	260.85	4209.26
					2/25/14	261.04	4209.07
					6/4/14	262.53	4207.58
					9/10/14	263.68	4206.43
					11/20/14	261.18	4208.93
					3/24/15	261.44	4208.67
					9/17/15	264.32	4205.79
					3/24/16	261.79	4208.32
					9/28/16	262.8	4207.31
					3/20/17	261.3	4208.81
					8/10/17	262.0	4208.11
					3/8/18	283.2	4186.90
					8/22/18	281.46	4188.65
					2/14/19	341.04	4129.07
					9/9/19	295.40	4174.71
					2/27/20	304.30	4165.81
					8/25/20	299.29	4170.82
LADD 977	642977	597619.168	3468714.011	4513.40	3/17/11	82.32	4431.08
					6/24/11	84.00	4429.40
					9/29/11	83.62	4429.78
					12/16/11	84.8	4428.60
					2/15/12	84.67	4428.73
					6/11/12	85.7	4427.70
					9/26/12	84.96	4428.44
					12/19/12	86.27	4427.13
					3/22/13	85.18	4428.22
					6/14/13	86.54	4426.86
					9/24/13	82.66	4430.74
					12/3/13	84.48	4428.92
					2/25/14	85.27	4428.13
					6/4/14	85.88	4427.52
					9/10/14	86.15	4427.25
					11/20/14	80.95	4432.45
					3/24/15	83.73	4429.67
					5/19/15	84.28	4429.12
					9/17/15	86.44	4426.96
					12/17/15	86.81	4426.59
					3/24/16	87.22	4426.18
					9/28/16	86.11	4427.29
					3/20/17	86.55	4426.85
					8/10/17	87.9	4425.50
					3/8/18	87.92	4425.48
					8/22/18	88.92	4424.48
					2/14/19	87.5	4425.90
					9/9/19	89.27	4424.13
					2/27/20	87.47	4425.93
					8/25/20	89.28	4424.12

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
MCCONNELL 265	539265	601463.094	3468840.139	4600.70	2/20/08	156.15	4444.55
					5/6/08	156.40	4444.30
					7/15/08	157.07	4443.63
					11/19/08	157.17	4443.53
					1/28/09	156.70	4444.00
					4/15/09	157.22	4443.48
					7/15/09	157.59	4443.11
					10/12/09	158.13	4442.57
					1/26/10	158.35	4442.35
					4/22/10	158.68	4442.02
					7/21/10	159.37	4441.33
					10/18/10	159.63	4441.07
					1/19/11	159.69	4441.01
					4/8/11	159.10	4441.60
					7/12/11	160.77	4439.93
					10/11/11	161.17	4439.53
					2/7/12	161.31	4439.39
					4/11/12	161.57	4439.13
					7/6/12	162.36	4438.34
					10/8/12	162.43	4438.27
					1/10/13	162.57	4438.13
					4/18/13	163.08	4437.62
					10/14/13	163.61	4437.09
					1/8/14	163.42	4437.28
					4/14/14	163.79	4436.91
					7/14/14	164.03	4436.67
					10/7/14	163.89	4436.81
					2/2/15	163.32	4437.38
					5/19/15	163.54	4437.16
					7/31/15	163.83	4436.87
					10/8/15	163.64	4437.06
					1/11/16	163.36	4437.34
					7/26/16	167.70	4433.00
					1/16/17	164.46	4436.24
					7/20/17	165.09	4435.61
					1/15/18	165.10	4435.60
					7/17/18	165.09	4435.61
					1/9/19	166.29	4434.41
					7/10/19	166.91	4433.79
					1/16/20	167.28	4433.42
					8/10/20	167.46	4433.24
MCCONNELL 459	221459	601471.708	3468840.682	4601.55	7/27/12	170.50	4431.05
					10/8/12	166.81	4434.74
					1/15/13	166.32	4435.23
					4/10/13	166.79	4434.76
					7/19/13	167.53	4434.02
					10/14/13	167.13	4434.42
					1/8/14	167.90	4433.65
					4/14/14	167.28	4434.27
					9/9/14	167.37	4434.18
					10/7/14	167.24	4434.31
					5/19/15	168.03	4433.52
					7/31/15	170.86	4430.69
					7/26/16	167.13	4434.42
					7/20/17	168.58	4432.97
					7/17/18	169.08	4432.47
					7/10/19	170.81	4430.74
					8/10/20	171.11	4430.44

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
METZLER	35-71891	602091.308	3471381.176	4728.53	3/5/08	288.30	4440.23
					5/15/08	286.53	4442.00
					7/31/08	286.82	4441.71
					10/20/08	287.09	4441.44
					2/11/09	287.74	4440.79
					4/20/09	287.47	4441.06
					7/15/09	287.58	4440.95
					10/14/09	287.99	4440.54
					2/1/10	288.38	4440.15
					5/18/10	288.65	4439.88
					7/16/10	288.88	4439.65
					10/19/10	289.09	4439.44
					1/19/11	289.54	4438.99
					4/4/11	289.87	4438.66
					7/12/11	289.98	4438.55
					10/12/11	290.47	4438.06
					2/7/12	290.92	4437.61
					4/12/12	291.15	4437.38
					7/18/12	291.37	4437.16
					10/4/12	291.63	4436.90
					1/11/13	292.15	4436.38
					4/11/13	292.29	4436.24
					7/17/13	292.43	4436.10
					10/17/13	292.86	4435.67
					1/16/14	293.20	4435.33
					4/15/14	293.20	4435.33
					7/21/14	293.45	4435.08
					10/8/14	293.62	4434.91
					1/27/15	293.36	4435.17
					8/3/15	293.54	4434.99
					1/12/16	293.69	4434.84
					7/25/16	293.40	4435.13
					1/17/17	294.09	4434.44
					7/14/17	294.38	4434.15
					1/15/18	294.51	4434.02
					7/17/18	294.94	4433.59
					1/14/19	295.08	4433.45
					7/12/19	295.54	4432.99
					1/15/20	295.76	4432.77
					8/11/20	295.97	4432.56
MOORE	538847	599499.9949	3468066.557	4568.49	8/1/18	155.64	4412.85
					7/9/19	157.43	4411.06
					7/22/20	157.32	4411.17
NESS	509127	607866.391	3471419.494	4761.23	7/24/08	557.90	4203.33
					10/16/08	549.30	4211.93
					2/25/09	536.40	4224.83
					5/11/09	544.64	4216.59
					8/11/09	566.87	4194.36
					11/12/09	537.34	4223.89
					2/2/10	531.85	4229.38
					4/21/10	568.11	4193.12
					7/19/10	573.02	4188.21
					1/18/11	541.80	4219.43
					7/12/11	597.71	4163.52
					2/3/12	591.24	4169.99
					1/9/13	551.35	4209.88
					1/6/14	538.84	4222.39
					7/7/14	594.42	4166.81
					7/20/15	553.54	4207.69
					7/11/16	556.90	4204.33
					7/27/17	550.36	4210.87
					7/31/18	538.72	4222.51
					7/11/19	575.06	4186.17
					8/14/20	584.34	4176.89

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NOTEMAN	212483	606053.800	3471576.400	4800.68	5/13/08	339.77	4460.91
					8/27/08	344.34	4456.34
					11/22/08	322.26	4478.42
					2/25/09	327.54	4473.14
NSD-02	527587	598820.051	3468821.474	4531.38	10/7/09	101.17	4430.21
					3/16/10	99.43	4431.95
					5/25/10	101.63	4429.75
					8/25/10	102.38	4429.00
					3/17/11	102.68	4428.70
					6/17/11	109.29	4422.09
					12/7/11	104.41	4426.97
					3/6/12	104.30	4427.08
					12/14/12	107.24	4424.14
					3/22/13	107.20	4424.18
					6/24/13	113.50	4417.88
					9/23/13	105.00	4426.38
					12/19/13	103.45	4427.93
					3/24/14	103.12	4428.26
					6/23/14	107.06	4424.32
					9/23/14	104.77	4426.61
					12/22/14	101.30	4430.08
					3/23/15	101.56	4429.82
					6/22/15	104.33	4427.05
					9/28/15	113.64	4417.74
					12/21/15	112.43	4418.95
					3/21/16	113.42	4417.96
					6/20/16	114.78	4416.60
					9/29/16	103.99	4427.39
					3/16/17	105.44	4425.94
					9/30/17	108.89	4422.49
					3/26/18	106.02	4425.36
					9/24/18	106.13	4425.25
					3/18/19	105.00	4426.38
					7/30/19	112.53	4418.85
					1/30/20	105.28	4426.10
					7/30/20	108.14	4423.24

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NSD-03	527586	598070.538	3468694.259	4518.28	10/7/09	85.62	4432.66
					3/16/10	83.51	4434.77
					5/25/10	84.49	4433.79
					8/25/10	85.70	4432.58
					3/17/11	86.76	4431.52
					6/17/11	88.76	4429.52
					12/7/11	89.30	4428.98
					3/6/12	89.24	4429.04
					12/14/12	90.83	4427.45
					3/22/13	88.65	4429.63
					6/24/13	91.70	4426.58
					9/23/13	86.88	4431.40
					12/19/13	89.11	4429.17
					3/24/14	89.48	4428.80
					6/23/14	90.77	4427.51
					9/23/14	89.10	4429.18
					12/22/14	86.80	4431.48
					3/23/15	87.68	4430.60
					6/22/15	89.40	4428.88
					9/28/15	90.65	4427.63
					12/21/15	90.97	4427.31
					3/21/16	91.30	4426.98
					6/20/16	92.16	4426.12
					9/29/16	89.50	4428.78
					3/16/17	89.81	4428.47
					9/30/17	90.71	4427.57
					3/26/18	91.28	4427.00
					9/24/18	92.22	4426.06
					3/18/19	91.01	4427.27
					7/30/19	93.64	4424.64
					1/30/20	90.87	4427.41
					7/30/20	93.51	4424.77
NWC-02	562944	600177.435	3467474.673	4600.44	10/27/08	160.51	4439.93
					4/29/09[3]	160.5	4439.94
					9/10/09[3]	155	4445.44
					4/2010[3]	131	4469.44
					3/1/13[3]	131	4469.44
					2/12/15	165.02	4435.42
					7/30/15	166.36	4434.08
					10/6/15	165.92	4434.52
					1/12/16	166.36	4434.08
					7/26/16	167.43	4433.01
					1/26/17	167.49	4432.95
					7/18/17	168.60	4431.84
					1/16/18	168.50	4431.94
					7/18/18	169.35	4431.09
					1/7/19	170.50	4429.94
					7/9/19	170.59	4429.85
					1/16/20	171.98	4428.46
					7/22/20	171.19	4429.25
NWC-03	203321	601153.857	3468350.838	4574.99	11/3/08	131.48	4443.51
					4/29/09[3]	130	4444.99
					9/10/09[3]	126	4448.99
					10/9/09[3]	125	4449.99

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
NWC-03 CAP	627684	601151.704	3468343.653	4572.82	2/2/09	130.03	4442.79
					4/23/09	130.62	4442.20
					7/21/09	131.26	4441.56
					10/21/09	131.60	4441.22
					2/3/10	131.34	4441.48
					4/21/10	131.86	4440.96
					7/20/10	131.50	4441.32
					1/18/11	132.91	4439.91
					7/15/11	134.42	4438.40
					10/13/11	134.73	4438.09
					1/31/12	134.50	4438.32
					4/25/12	135.09	4437.73
					7/18/12	135.73	4437.09
					10/10/12	135.97	4436.85
					1/10/13	135.60	4437.22
					4/17/13	136.32	4436.50
					7/12/13	136.78	4436.04
					10/10/13	136.78	4436.04
					1/13/14	136.43	4436.39
					4/7/14	136.93	4435.89
					7/10/14	137.30	4435.52
					2/12/15	136.27	4436.55
					7/30/15	136.88	4435.94
					9/29/16	130.38	4442.44
					1/26/17	128.41	4444.41
					7/18/17	130.48	4442.34
					1/16/18	121.55	4451.27
					2/23/18	124.44	4448.38
					7/18/18	119.39	4453.43
NWC-04	551849	605829.808	3469071.959	4690.77	12/2/08	352.11	4338.66
					4/29/09[3]	328	4362.77
					9/10/09[3]	324	4366.77
					4/2010[3]	216	4474.77
					3/1/13[3]	216	4474.77
NWC-06	575700	599822.821	3467749.954	4592.50	4/29/09[3]	156	4436.50
					9/10/09[3]	155	4437.50
					10/9/09[3]	148	4444.50
					4/2010[3]	140	4452.50
					3/1/13[3]	140	4452.50
					7/30/15	160.95	4431.55
					10/6/15	160.48	4432.02
					1/12/16	168.81	4423.69
					7/26/16	167.73	4424.77
					1/26/17	162.26	4430.24
					7/18/17	162.80	4429.70
					1/16/18	162.78	4429.72
					7/18/18	163.77	4428.73
					1/7/19	164.68	4427.82
					7/9/19	165.28	4427.22
					1/16/20	165.12	4427.38
					7/22/20	165.81	4426.69
OLMOS	224745	599641.506	3468055.337	4576.92	1/13/16	145.84	4431.08
					1/15/18	148.47	4428.45
					7/13/18	150.28	4426.64
					1/14/19	150.75	4426.17
					7/8/19	151.52	4425.40
					1/17/20	151.52	4425.40
					8/5/20	152.38	4424.54

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
OSBORN	643436	607031.823	3470270.548	4711.95	5/13/08	68.65	4643.30
					8/5/08	69.53	4642.42
					10/16/08	69.83	4642.12
					1/20/09	69.23	4642.72
					4/7/09	69.60	4642.35
					7/8/09	96.61	4615.34
					10/5/09	75.09	4636.86
					1/21/10	75.37	4636.58
					4/19/10	81.59	4630.36
					7/12/10	83.00	4628.95
					7/12/11	74.60	4637.35
					2/3/12	74.57	4637.38
					7/9/12	74.63	4637.32
PANAGAKOS	35-76413	605304.234	3469323.140	4691.40	1/22/09	155.28	4536.12
					4/9/09	156.15	4535.25
					7/9/09	161.61	4529.79
					10/6/09	167.20	4524.20
					1/21/10	166.92	4524.48
					4/20/10	167.11	4524.29
					7/20/10	171.78	4519.62
					10/18/10	176.39	4515.01
					7/14/11	173.78	4517.62
					8/25/11	172.89	4518.51
					2/6/12	169.09	4522.31
					2/29/12	169.32	4522.08
					3/15/12	169.64	4521.76
					4/12/12	168.85	4522.55
					7/9/12	170.38	4521.02
					11/27/12	169.82	4521.58
					1/18/13	169.12	4522.28
					2/6/13	168.76	4522.64
					4/9/13	167.79	4523.61
					7/10/13	168.51	4522.89
					10/15/13	164.49	4526.91
					1/10/14	160.32	4531.08
					4/16/14	158.75	4532.65
					7/17/14	159.69	4531.71
					10/16/14	159.28	4532.12
					1/26/15	158.02	4533.38
					7/27/15	160.04	4531.36
					1/11/16	160.50	4530.90
					2/24/17	162.64	4528.76
					7/17/17	160.37	4531.03
					1/18/18	160.12	4531.28
					7/30/18	161.94	4529.46
					1/15/19	167.97	4523.43
					7/8/19	166.86	4524.54
					1/14/20	166.69	4524.71
					8/13/20	163.46	4527.94
PARRA	576415	602170.716	3471263.549	4727.21	5/15/08	279.78	4447.43
					8/18/08	280.06	4447.15
					11/3/08	280.39	4446.82
					2/13/09	280.75	4446.46
					4/28/09	280.88	4446.33
					7/20/09	280.99	4446.22

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
PIONKE 395	613395	601045.471	3468960.981	4592.13	7/17/08	149.88	4442.25
					11/3/08	150.99	4441.14
					2/25/09	149.68	4442.45
					4/14/09	150.01	4442.12
					7/13/09	150.47	4441.66
					10/7/09	150.96	4441.17
					3/8/10	151.11	4441.02
					4/26/10	151.32	4440.81
					7/15/10	151.90	4440.23
					10/18/10	152.38	4439.75
					1/19/11	152.38	4439.75
					4/8/11	153.04	4439.09
					7/12/11	153.57	4438.56
					10/11/11	153.87	4438.26
					2/1/12	153.92	4438.21
					4/12/12	154.35	4437.78
					7/11/12	154.97	4437.16
					10/17/12	155.31	4436.82
					1/9/13	155.25	4436.88
					4/17/13	155.76	4436.37
					7/18/13	156.09	4436.04
					10/17/13	156.39	4435.74
					2/5/14	155.84	4436.29
					4/9/14	156.21	4435.92
					7/11/14	156.66	4435.47
					10/7/14	156.47	4435.66
					2/2/15	155.81	4436.32
					5/18/15	155.97	4436.16
					7/22/15	156.29	4435.84
					10/8/15	156.03	4436.10
					1/11/16	155.64	4436.49
					7/26/16	156.55	4435.58
					1/16/17	156.92	4435.21
					9/30/17	157.63	4434.50
					1/15/18	157.42	4434.71
					7/24/18	158.37	4433.76
					1/7/19	158.89	4433.24
					7/11/19	159.32	4432.81
					1/8/20	159.43	4432.70
					8/12/20	159.73	4432.40
PIONKE 517	221517	600909.967	3468866.654	4587.20792	9/18/12	152.00	4435.21
					10/11/12	152.15	4435.06
					1/9/13	152.23	4434.98
					4/17/13	152.58	4434.63
					7/16/13	153.11	4434.10
					10/17/13	153.27	4433.94
					3/5/14	153.24	4433.97
					4/9/14	153.07	4434.14
					7/11/14	153.56	4433.65
					10/7/14	153.31	4433.90
					5/18/15	152.76	4434.45
					7/22/15	153.12	4434.09
					7/26/16	153.32	4433.89
					7/18/17	154.44	4432.77
					7/24/18	155.18	4432.03
					7/11/19	156.16	4431.05
					8/12/20	156.55	4430.66

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
POOL	509518	599683.603	3470013.823	4639.09	2/20/08	204.22	4434.87
					5/19/08	204.72	4434.37
					7/31/08	205.56	4433.53
					10/21/08	205.06	4434.03
					2/13/09	204.74	4434.35
					4/21/09	204.87	4434.22
					7/20/09	205.69	4433.40
					10/20/09	206.06	4433.03
					2/24/10	205.59	4433.50
					4/22/10	205.48	4433.61
					7/14/10	206.58	4432.51
					10/20/10	206.74	4432.35
					3/21/16	209.98	4429.11
					8/1/18	212.45	4426.64
					7/10/19	212.88	4426.21
					8/10/20	213.56	4425.53
POWER 639	222639	602146.123	3471373.655	4734.38	1/16/14	294.07	4440.31
					2/5/14	294.07	4440.31
					3/5/14	294.20	4440.18
					4/15/14	294.14	4440.24
					5/13/14	294.25	4440.13
					6/23/14	294.28	4440.10
					7/17/14	294.32	4440.06
					8/11/14	294.44	4439.94
					9/9/14	294.47	4439.91
					10/8/14	294.49	4439.89
					1/27/15	294.24	4440.14
					3/10/15	294.19	4440.19
					4/28/15	294.17	4440.21
					5/14/15	249.23	4485.15
					6/11/15	294.29	4440.09
					7/30/15	294.38	4440.00
					1/14/16	294.65	4439.73
					7/27/16	294.81	4439.57
					1/26/17	295.05	4439.33
					7/12/17	295.25	4439.13
					1/10/18	295.47	4438.91
					7/25/18	295.75	4438.63
					1/14/19	295.96	4438.42
					7/12/19	296.56	4437.82
					1/15/20	296.68	4437.70
					8/13/20	296.98	4437.40

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
RAMIREZ	216425	599730.649	3467584.363	4596.61	10/27/08	159.45	4437.16
					1/29/09	158.74	4437.87
					4/16/09	158.66	4437.95
					7/10/09	159.64	4436.97
					10/6/09	160.36	4436.25
					1/25/10	160.10	4436.51
					4/21/10	159.96	4436.65
					7/21/10	161.05	4435.56
					10/19/10	161.23	4435.38
					1/18/11	161.22	4435.39
					4/11/11	161.48	4435.13
					7/18/11	162.39	4434.22
					10/12/11	163.04	4433.57
					4/10/12	163.22	4433.39
					7/6/12	163.85	4432.76
					10/8/12	164.38	4432.23
					4/19/13	164.96	4431.65
					1/13/14	165.26	4431.35
					4/14/14	164.85	4431.76
					2/2/15	164.33	4432.28
					5/28/15	164.39	4432.22
					7/21/15	164.65	4431.96
					10/8/15	164.72	4431.89
					1/14/16	164.15	4432.46
					7/14/16	165.52	4431.09
					7/26/17	166.81	4429.80
					1/15/18	167.59	4429.02
					7/25/18	167.71	4428.90
					1/14/19	168.26	4428.35
					7/9/19	189.06	4407.55
					7/30/19	168.94	4427.67
					1/13/20	169.12	4427.49
					8/6/20	169.88	4426.73

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
RAY	803772	607083.422	3469195.147	4647.91	2/15/08	40.85	4607.06
					5/13/08	43.82	4604.09
					7/29/08	45.25	4602.66
					10/22/08	44.54	4603.37
					1/20/09	44.31	4603.60
					4/8/09	44.68	4603.23
					7/9/09	48.99	4598.92
					10/7/09	49.87	4598.04
					1/26/10	47.61	4600.30
					4/20/10	49.78	4598.13
					7/14/10	51.36	4596.55
					10/20/10	49.85	4598.06
					1/17/11	50.51	4597.40
					4/5/11	51.84	4596.07
					7/11/11	55.74	4592.17
					10/12/11	53.63	4594.28
					1/31/12	53.21	4594.70
					4/11/12	54.50	4593.41
					7/6/12	58.75	4589.16
					10/3/12	60.98	4586.93
					1/17/13	56.57	4591.34
					4/18/13	56.32	4591.59
					7/9/13	60.30	4587.61
					10/15/13	44.33	4603.58
					1/14/14	34.50	4613.41
					4/8/14	36.72	4611.19
					7/8/14	43.38	4604.53
					10/22/14	44.65	4603.26
					8/4/15	48.31	4599.60
					7/12/16	53.50	4594.41
					7/26/17	57.61	4590.30
					7/31/18	54.96	4592.95
					7/19/19	55.48	4592.43
					8/13/20	60.56	4587.35
ROGERS 596	573596	601001.503	3468491.639	4577.35	11/11/09	135.46	4441.89
					2/25/10	135.89	4441.46
					4/22/10	135.62	4441.73
					7/16/10	136.63	4440.72
					10/19/10	136.61	4440.74
					1/20/11	134.21	4443.14
					4/8/11	137.68	4439.67
					7/14/11	138.09	4439.26
					10/12/11	138.09	4439.26
					1/30/12	137.91	4439.44
					4/23/12	138.61	4438.74
					7/13/12	139.65	4437.70
					10/10/12	139.55	4437.80
					1/15/13	139.23	4438.12
					4/15/13	139.97	4437.38
					7/15/13	139.94	4437.41
					10/16/13	140.50	4436.85
					1/9/14	140.12	4437.23
					4/11/14	140.56	4436.79
					7/18/14	140.64	4436.71
					1/12/16	139.57	4437.78
					9/30/17	141.86	4435.49
					1/18/18	141.88	4435.47
					7/26/18	142.57	4434.78
					1/14/19	142.75	4434.60
					7/22/19	143.54	4433.81
					1/22/20	143.75	4433.60

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ROGERS 750[4]	641750	600977.690	3468417.386	4579.02	2/7/08	129.85	4449.17
					7/29/08	131.86	4447.16
					10/22/08	132.08	4446.94
					2/10/09	130.62	4448.40
					4/29/09	131.33	4447.69
					8/3/09	135.07	4443.95
ROGERS 803	641803	601003.273	3468480.391	4576.16	9/30/17	138.83	4437.33
					1/18/18	138.90	4437.26
					7/26/18	139.62	4436.54
					1/14/19	139.92	4436.24
					7/22/19	140.39	4435.77
					1/22/20	140.60	4435.56
					8/11/20	140.82	4435.34
ROGERS E	216018	600449.648	3467636.029	4590.66	7/17/08	149.65	4441.01
					11/3/08	150.15	4440.51
					2/10/09	149.02	4441.64
					4/16/09	149.53	4441.13
					7/13/09	150.31	4440.35
					10/6/09	150.76	4439.90
					1/25/10	150.64	4440.02
					4/21/10	150.97	4439.69
					8/25/10	151.15	4439.51
					10/19/10	151.57	4439.09
					10/13/11	153.79	4436.87
					1/30/12	153.56	4437.10
					4/10/12	154.13	4436.53
					7/17/12	155.10	4435.56
					1/17/13	154.56	4436.10
					4/18/13	155.66	4435.00
					7/17/13	155.71	4434.95
					4/14/14	155.97	4434.69
					7/30/15	155.91	4434.75
					10/8/15	155.55	4435.11
					7/26/17	157.46	4433.20
					2/23/18	157.28	4433.38
					7/13/18	158.53	4432.13
					1/11/19	159.10	4431.56
					7/12/19	159.66	4431.00
					1/21/20	159.76	4430.90
					8/7/20	160.14	4430.52
RUIZ	531770	602857.357	3471424.219	4735.18	2/5/08	293.29	4441.89
					5/15/08	293.57	4441.61
					7/30/08	293.86	4441.32
					10/20/08	294.18	4441.00
					2/12/09	294.62	4440.56
					4/21/09	294.66	4440.52
					8/3/09	294.98	4440.20
					10/28/09	295.33	4439.85
					2/1/10	295.70	4439.48
					4/26/10	295.96	4439.22
					4/8/11	297.20	4437.98
					4/13/12	298.47	4436.71
					1/11/13	299.39	4435.79
					4/11/13	299.72	4435.46
					7/25/13	300.06	4435.12
					10/17/13	300.07	4435.11
					1/8/14	300.19	4434.99
					4/15/14	300.31	4434.87
					10/21/14	300.38	4434.80
					1/27/15	299.76	4435.42
					7/30/15	299.74	4435.44
					1/12/16	300.20	4434.98
					7/24/18	301.45	4433.73
					1/15/19	301.74	4433.44
					7/10/19	302.08	4433.10

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
RUIZ 146	232146				8/12/20	301.12	4434.06
SCHWARTZ	210865	600811.014	3468269.622	4564.49	2/8/08	121.80	4442.69
					5/19/08	123.49	4441.00
					7/29/08	122.64	4441.85
					10/22/08	123.39	4441.10
					1/29/09	122.87	4441.62
					4/17/09	123.53	4440.96
					7/10/09	124.15	4440.34
					10/6/09	124.55	4439.94
					1/22/10	124.32	4440.17
					4/21/10	124.65	4439.84
					7/21/10	125.80	4438.69
					10/19/10	126.30	4438.19
					1/17/11	125.35	4439.14
					4/11/11	127.50	4436.99
					7/18/11	127.67	4436.82
					10/12/11	127.51	4436.98
					2/6/12	127.34	4437.15
					4/10/12	127.78	4436.71
					7/16/12	128.84	4435.65
					10/17/12	128.98	4435.51
					3/13/13	128.81	4435.68
					5/14/13	129.60	4434.89
					7/15/13	129.05	4435.44
					10/14/13	130.15	4434.34
					4/9/14	129.77	4434.72
					7/18/14	129.81	4434.68
					10/22/14	129.66	4434.83
					2/3/15	128.66	4435.83
					5/18/15	129.30	4435.19
					8/4/15	129.51	4434.98
					10/8/15	129.34	4435.15
					1/14/16	128.32	4436.17
					7/27/16	130.01	4434.48
					1/24/17	129.86	4434.63
					7/11/17	131.21	4433.28
					1/9/18	130.46	4434.03
					7/11/18	131.96	4432.53
					1/9/19	131.50	4432.99
					1/22/20	132.54	4431.95
					7/22/20	132.76	4431.73

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
STEPHENS	808560	606981.766	3469072.799	4651.22	5/13/08	44.94	4606.28
					8/5/08	46.61	4604.61
					10/16/08	46.60	4604.62
					1/21/09	47.19	4604.03
					4/8/09	48.45	4602.77
					7/7/09	49.41	4601.81
					10/7/09	50.33	4600.89
					1/26/10	51.13	4600.09
					4/20/10	51.24	4599.98
					7/14/10	51.91	4599.31
					1/18/11	52.98	4598.24
					7/11/11	54.44	4596.78
					1/31/12	55.65	4595.57
					7/9/12	10.69	4640.53
					1/18/13	10.50	4640.72
					7/10/13	58.16	4593.06
					1/14/14	45.51	4605.71
					7/8/14	45.39	4605.83
					1/26/15	47.91	4603.31
					7/24/15	49.71	4601.51
					1/11/16	50.88	4600.34
					7/12/16	52.64	4598.58
					1/17/17	53.09	4598.13
					7/14/17	54.15	4597.07
					1/15/18	55.74	4595.48
					7/30/18	56.02	4595.20
					1/15/19	55.85	4595.37
					7/11/19	56.20	4595.02
					1/14/20	54.02	4597.20
					7/20/20	53.58	4597.64
SUNBELT	201531	605998.250	3471735.149	4806.52	2/6/08	352.10	4454.42
					5/15/08	358.97	4447.55
					8/5/08	Dry	<4426
					10/16/08	347.00	4459.52
					1/21/09	344.78	4461.74
					4/10/09	349.64	4456.88
					7/8/09	356.99	4449.53
					10/5/09	Dry	<4426
					1/21/10	Dry	<4426
					4/19/10	Dry	<4426
					7/12/10	Dry	<4426
					1/19/11	Dry	<4426
					8/25/11	Dry	<4426
					2/3/12	Dry	<4426
					7/9/12	Dry	<4426
					9/13/12	Dry	<4426
					1/17/13	Dry	<4426
					7/9/13	Dry	<4426
					1/10/14	Dry	<4426
					7/8/14	Dry	<4426

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
SWAN	NR	607378.547	3470648.298	4716.59	2/13/08	26.50	4690.09
					5/14/08	30.69	4685.90
					7/24/08	32.06	4684.53
					10/16/08	27.53	4689.06
					1/20/09	29.77	4686.82
					4/7/09	31.47	4685.12
					7/8/09	33.61	4682.98
					10/5/09	35.12	4681.47
					1/21/10	36.64	4679.95
					4/21/10	38.06	4678.53
					7/19/10	39.67	4676.92
					1/18/11	35.06	4681.53
					7/12/11	39.32	4677.27
					2/3/12	37.86	4678.73
					7/10/12	40.39	4676.20
					1/9/13	38.51	4678.08
					7/8/13	42.26	4674.33
					1/10/14	29.43	4687.16
					7/7/14	33.68	4682.91
					7/20/15	33.08	4683.51
					7/11/16	35.60	4680.99
					7/27/17	38.08	4678.51
					7/31/18	42.14	4674.45
THOMPSON 151	612151	599543.561	3467387.294	4597.62	8/9/13	167.86	4429.76
					10/10/13	167.68	4429.94
					1/16/14	167.19	4430.43
					4/14/14	166.98	4430.64
					7/21/14	167.78	4429.84
					10/22/14	167.56	4430.06
					2/2/15	166.56	4431.06
					5/19/15	166.51	4431.11
					8/3/15	167.09	4430.53
THOMPSON 341	218341	599532.241	3467396.849	4596.73	7/28/17	168.34	4428.39
					1/16/18	168.22	4428.51
					7/26/18	169.23	4427.50
					1/11/19	169.81	4426.92
					7/10/19	170.29	4426.44
					1/15/20	170.62	4426.11
					8/12/20	171.37	4425.36

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-02A	522574	604152.059	3472008.794	4808.43	3/4/08	346.62	4461.81
					5/23/08	346.16	4462.27
					8/15/08	353.91	4454.52
					10/30/08	349.45	4458.98
					2/24/09	348.64	4459.79
					5/6/09	349.38	4459.05
					8/12/09	349.13	4459.30
					11/4/09	348.97	4459.46
					3/10/10	348.19	4460.24
					4/6/10	353.86	4454.57
					7/6/10	349.20	4459.23
					2/10/11	347.60	4460.83
					7/13/11	348.14	4460.29
					2/2/12	346.94	4461.49
					8/13/12	344.53	4463.90
					2/14/13	343.50	4464.93
					8/27/13	343.84	4464.59
					2/18/14	341.47	4466.96
					8/12/14	338.50	4469.93
					2/5/15	336.02	4472.41
					9/14/15	334.23	4474.20
					3/16/16	333.52	4474.91
					8/17/16	333.90	4474.53
					3/7/17	335.30	4473.13
					8/1/17	336.32	4472.11
					2/1/18	337.14	4471.29
					7/26/18	337.17	4471.26
					2/11/19	337.53	4470.90
					8/5/19	338.84	4469.59
					2/20/20	338.42	4470.01
					7/20/20	337.15	4471.28
TM-03	522575	606366.130	3473711.046	4897.85	3/12/08	127.14	4770.71
					5/20/08	127.40	4770.45
					8/6/08	128.02	4769.83
					11/12/08	128.00	4769.85
					2/26/09	126.94	4770.91
					5/13/09	113.86	4783.99
					8/18/09	128.80	4769.05
					11/10/09	125.38	4772.47
					3/2/10	128.02	4769.83
					4/14/10	130.56	4767.29
					7/7/10	131.25	4766.60
					2/1/12	135.04	4762.81

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-06 MILLER	522695	606055.975	3468376.658	4707.88	2/26/08	158.78	4549.10
					5/20/08	158.76	4549.12
					8/4/08	158.80	4549.08
					10/29/08	158.85	4549.03
					2/16/09	159.28	4548.60
					5/13/09	158.81	4549.07
					8/18/09	158.91	4548.97
					11/12/09	158.96	4548.92
					3/8/10	158.99	4548.89
					4/14/10	159.02	4548.86
					7/2/10	159.13	4548.75
					7/21/11	159.88	4548.00
					7/9/12	161.40	4546.48
					2/14/13	161.05	4546.83
					8/19/13	161.30	4546.58
					7/21/14	162.60	4545.28
					2/5/15	162.36	4545.52
					9/10/15	162.94	4544.94
					3/16/16	162.14	4545.74
					9/21/16	163.08	4544.80
					3/7/17	162.83	4545.05
					7/26/17	163.47	4544.41
					2/5/18	163.46	4544.42
					7/16/18	163.96	4543.92
					1/29/19	162.32	4545.56
					7/31/19	164.23	4543.65
					2/20/20	163.15	4544.73
					8/10/20	166.27	4541.61
TM-10 USBP	522696	601586.268	3471816.397	4741.18	3/15/12	279.30	4461.88
					4/24/12	279.03	4462.15
					9/13/12	278.30	4462.88
					10/19/12	277.45	4463.73
					3/7/13	276.55	4464.63
					4/17/13	276.42	4464.76
					7/23/13	275.99	4465.19
					11/6/13	254.20	4486.98
					1/15/14	262.00	4479.18
					5/15/14	269.39	4471.79
					7/15/14	271.03	4470.15
					10/16/14	235.11	4506.07
					1/28/15	252.47	4488.71
					7/24/15	264.53	4476.65
					2/2/16	262.66	4478.52
					7/13/16	269.35	4471.83
					1/27/17	259.58	4481.60
					7/17/17	267.41	4473.77
					1/8/18	255.19	4485.99
					7/9/18	266.18	4475.00
					1/8/19	247.36	4493.82
					7/16/19	259.23	4481.95
					1/6/20	239.32	4501.86
					8/3/20	256.07	4485.11
TM-15 MILLER	522699	599618.715	3471425.631	4729.25	3/20/17	300.54	4428.71
					8/1/17	300.76	4428.49
					7/18/18	301.32	4427.93
					8/19/19	301.92	4427.33
					8/24/20	302.43	4426.82

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-16	522578	605588.075	3469842.199	4717.71	3/5/08	81.00	4636.71
					5/22/08	81.24	4636.47
					8/6/08	81.65	4636.06
					11/5/08	81.75	4635.96
					2/26/09	81.88	4635.83
					5/13/09	82.01	4635.70
					8/19/09	82.37	4635.34
					11/10/09	82.83	4634.88
					3/2/10	83.09	4634.62
					4/14/10	83.22	4634.49
					7/2/10	83.51	4634.20
					7/14/11	80.41	4637.30
					7/9/12	72.55	4645.16
					8/15/13	61.42	4656.29
					8/4/14	62.55	4655.16
					2/5/15	58.80	4658.91
					9/9/15	60.06	4657.65
					3/16/16	60.43	4657.28
					8/25/16	59.24	4658.47
					3/7/17	61.08	4656.63
					7/12/17	62.59	4655.12
					2/1/18	60.18	4657.53
					8/7/18	62.44	4655.27
					2/11/19	58.90	4658.81
					7/30/19	61.35	4656.36
					2/20/20	58.16	4659.55
					7/20/20	60.72	4656.99
TM-19A	522581	602458.710	3469197.426	4645.87	3/6/08	199.85	4446.02
					5/22/08	199.50	4446.37
					8/6/08	199.19	4446.68
					11/18/08	199.46	4446.41
					3/3/09	199.81	4446.06
					4/22/09	200.57	4445.30
					8/12/09	201.46	4444.41
					11/4/09	201.16	4444.71
					3/10/10	201.34	4444.53
					4/9/10	201.55	4444.32
					7/7/10	202.35	4443.52
					2/14/11	203.00	4442.87
					7/15/11	203.30	4442.57
					2/2/12	203.84	4442.03
					7/11/12	204.75	4441.12
					10/16/12	205.02	4440.85
					2/15/13	205.30	4440.57
					9/4/13	205.73	4440.14
					2/12/14	207.47	4438.40
					7/21/14	210.56	4435.31
					9/10/15	206.48	4439.39
					8/18/16	207.24	4438.63
					7/26/17	207.54	4438.33
					7/25/18	208.53	4437.34
					8/7/19	209.33	4436.54
					8/17/20	211.36	4434.51

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TM-42	562554	603698.271	3469104.903	4666.67	3/5/08	211.04	4455.63
					5/22/08	210.98	4455.69
					8/6/08	211.55	4455.12
					11/6/08	207.05	4459.62
					2/18/09	212.31	4454.36
					5/7/09	212.37	4454.30
					8/18/09	212.77	4453.90
					11/3/09	213.05	4453.62
					2/24/10	213.36	4453.31
					4/19/10	213.51	4453.16
					7/2/10	213.52	4453.15
					7/12/11	214.62	4452.05
					7/11/12	216.10	4450.57
					2/12/13	216.55	4450.12
					8/28/13	217.38	4449.29
					7/21/14	218.33	4448.34
					2/4/15	218.87	4447.80
					9/10/15	219.31	4447.36
					3/16/16	219.55	4447.12
					8/18/16	219.89	4446.78
					3/7/17	220.35	4446.32
					7/26/17	220.54	4446.13
					2/5/18	220.81	4445.86
					8/6/18	221.12	4445.55
					1/29/19	221.36	4445.31
					8/7/19	221.71	4444.96
					2/20/20	222.15	4444.52
					8/10/20	222.31	4444.36
TVI 236	802236	600552.215	3467978.431	4561.98	5/7/08	123.30	4438.68
					7/15/08	121.55	4440.43
					10/15/08	122.35	4439.63
					2/11/09	121.28	4440.70
					4/17/09	122.73	4439.25
					7/21/09	123.96	4438.02
					10/19/09	123.88	4438.10
					2/2/10	122.26	4439.72
					4/23/10	122.70	4439.28
					7/15/10	125.08	4436.90
					7/15/11	127.23	4434.75
					7/16/12	127.81	4434.17
					10/9/12	128.45	4433.53
					7/18/13	127.38	4434.60
					7/16/14	129.24	4432.74
					2/2/15	126.81	4435.17
					5/19/15	128.38	4433.60
					7/30/15	128.31	4433.67
					10/7/15	127.26	4434.72
					1/12/16	126.49	4435.49
					7/20/16	128.90	4433.08
					9/26/16	128.26	4433.72
					1/27/17	128.57	4433.41
					7/31/17	128.59	4433.39
					1/17/18	129.66	4432.32
					7/27/18	130.16	4431.82
					1/16/19	130.67	4431.31
					7/24/19	130.87	4431.11
					1/21/20	130.92	4431.06
					8/11/20	131.43	4430.55

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
TVI 713	567713	600729.095	3468412.946	4567.22	5/7/08	127.10	4440.12
					7/14/08	126.30	4440.92
					10/15/08	130.00	4437.22
					2/11/09	149.87	4417.35
					4/17/09	126.73	4440.49
					7/21/09	127.36	4439.86
					10/19/09	127.79	4439.43
					2/2/10	126.71	4440.51
					4/23/10	127.53	4439.69
					7/15/10	129.14	4438.08
					10/20/10	130.84	4436.38
					1/20/11	134.36	4432.86
					4/11/11	135.72	4431.50
					7/15/11	131.61	4435.61
					10/12/11	130.33	4436.89
					2/3/12	130.01	4437.21
					4/25/12	131.33	4435.89
					7/16/12	131.97	4435.25
					10/9/12	132.16	4435.06
					2/6/13	131.14	4436.08
					4/10/13	132.08	4435.14
					7/18/13	131.72	4435.50
					10/8/13	133.10	4434.12
					1/9/14	132.37	4434.85
					4/9/14	132.93	4434.29
					7/16/14	132.57	4434.65
					10/9/14	132.29	4434.93
					1/29/15	132.01	4435.21
					5/18/15	132.34	4434.88
					7/30/15	132.71	4434.51
					10/7/15	132.00	4435.22
					1/12/16	131.34	4435.88
					7/14/16	133.11	4434.11
					1/27/17	132.88	4434.34
					7/13/17	134.08	4433.14
					1/10/18	134.24	4432.98
					7/12/18	134.83	4432.39
					1/10/19	134.87	4432.35
					7/18/19	135.59	4431.63
					3/23/20	135.43	4431.79
					8/6/20	135.81	4431.41

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
WEISKOPF 802	641802	601154.951	3468658.855	4586.89	2/15/08	143.31	4443.58
					5/7/08	143.90	4442.99
					7/16/08	144.22	4442.67
					10/28/08	145.81	4441.08
					1/29/09	143.99	4442.90
					4/15/09	144.38	4442.51
					7/15/09	144.99	4441.90
					10/15/09	145.66	4441.23
					2/2/10	145.28	4441.61
					4/22/10	145.72	4441.17
					7/19/10	146.46	4440.43
					10/20/10	147.11	4439.78
					1/17/11	146.72	4440.17
					4/11/11	146.31	4440.58
					8/26/11	148.06	4438.83
					10/13/11	148.30	4438.59
					2/1/12	148.23	4438.66
					4/25/12	148.82	4438.07
					7/13/12	149.79	4437.10
					10/11/12	149.73	4437.16
					1/16/13	149.49	4437.40
					4/17/13	150.16	4436.73
					7/18/13	150.24	4436.65
					10/17/13	150.69	4436.20
					1/16/14	150.08	4436.81
					4/11/14	150.75	4436.14
					7/18/14	150.85	4436.04
					10/9/14	150.89	4436.00
					2/2/15	150.01	4436.88
					5/18/15	150.25	4436.64
					8/4/15	150.72	4436.17
					10/8/15	150.47	4436.42
					1/12/16	151.01	4435.88
					7/26/16	150.95	4435.94
					1/16/17	151.31	4435.58
					7/24/17	151.59	4435.30
					1/12/18	152.06	4434.83
					7/16/18	152.74	4434.15
					1/14/19	153.39	4433.50
					7/23/19	153.77	4433.12
					1/16/20	154.08	4432.81
					7/23/20	154.23	4432.66
WEISKOPF 897	220897	601096.780	3468647.358	4585.70	12/6/12	149.27	4436.43
					1/16/13	148.70	4437.00
					4/17/13	149.80	4435.90
					7/18/13	150.15	4435.55
					10/17/13	150.38	4435.32
					1/16/14	149.78	4435.92
					4/11/14	150.50	4435.20
					7/18/14	150.55	4435.15
					10/9/14	150.34	4435.36
					5/18/15	149.95	4435.75
					8/4/15	150.31	4435.39
					7/26/16	150.63	4435.07
					7/24/17	151.52	4434.18
					7/16/18	152.37	4433.33
					7/23/19	153.41	4432.29
					7/23/20	154.84	4430.86
WMD-2011-03M	913037	605360.830	3470671.273	4746.28	2/2/12	226.66	4519.62

TABLE 4
Compilation of Groundwater Elevation Data

Well Name	ADWR 55 Registry Number	UTM East (meters)	UTM North (meters)	Measuring Point Elevation (ft amsl)	Date	Depth To Water (feet)	Groundwater Elevation (ft amsl)
ZANDER	205126	599678.880	3467998.486	4580.94	2/4/08	144.85	4436.09
					5/6/08	145.33	4435.61
					7/16/08	146.40	4434.54
					10/28/08	146.01	4434.93
					2/10/09	144.83	4436.11
					4/16/09	144.94	4436.00
					7/14/09	146.14	4434.80
					10/13/09	146.77	4434.17
					1/26/10	146.34	4434.60
					4/22/10	146.27	4434.67
					7/21/10	147.81	4433.13
					10/19/10	147.80	4433.14
					1/18/11	147.52	4433.42
					4/6/11	147.84	4433.10
					7/13/11	148.91	4432.03
					10/12/11	149.50	4431.44
					1/31/12	149.31	4431.63
					4/10/12	149.64	4431.30
					7/17/12	150.63	4430.31
					10/8/12	150.92	4430.02
					1/10/13	150.89	4430.05
					4/18/13	151.36	4429.58
					7/15/13	152.14	4428.80
					10/7/13	151.65	4429.29
					1/7/14	151.10	4429.84
					4/9/14	150.81	4430.13
					7/17/14	152.02	4428.92
					8/3/15	150.65	4430.29
					10/8/15	150.10	4430.84
					1/12/16	149.46	4431.48
					7/15/16	151.25	4429.69
					1/27/17	152.14	4428.80
					7/24/17	152.63	4428.31
					1/16/18	152.03	4428.91
					7/24/18	153.67	4427.27
					1/11/19	154.15	4426.79
					7/16/19	154.82	4426.12
					1/17/20	154.93	4426.01
					8/11/20	155.71	4425.23

Notes:

35-71891 = ADWR 35 Database

ADWR = Arizona Department of Water Resources

ft amsl = feet above mean sea level

NR = No Record

UTM = Universal Transverse Mercator Zone 12, North American Datum 1983 (NAD83)

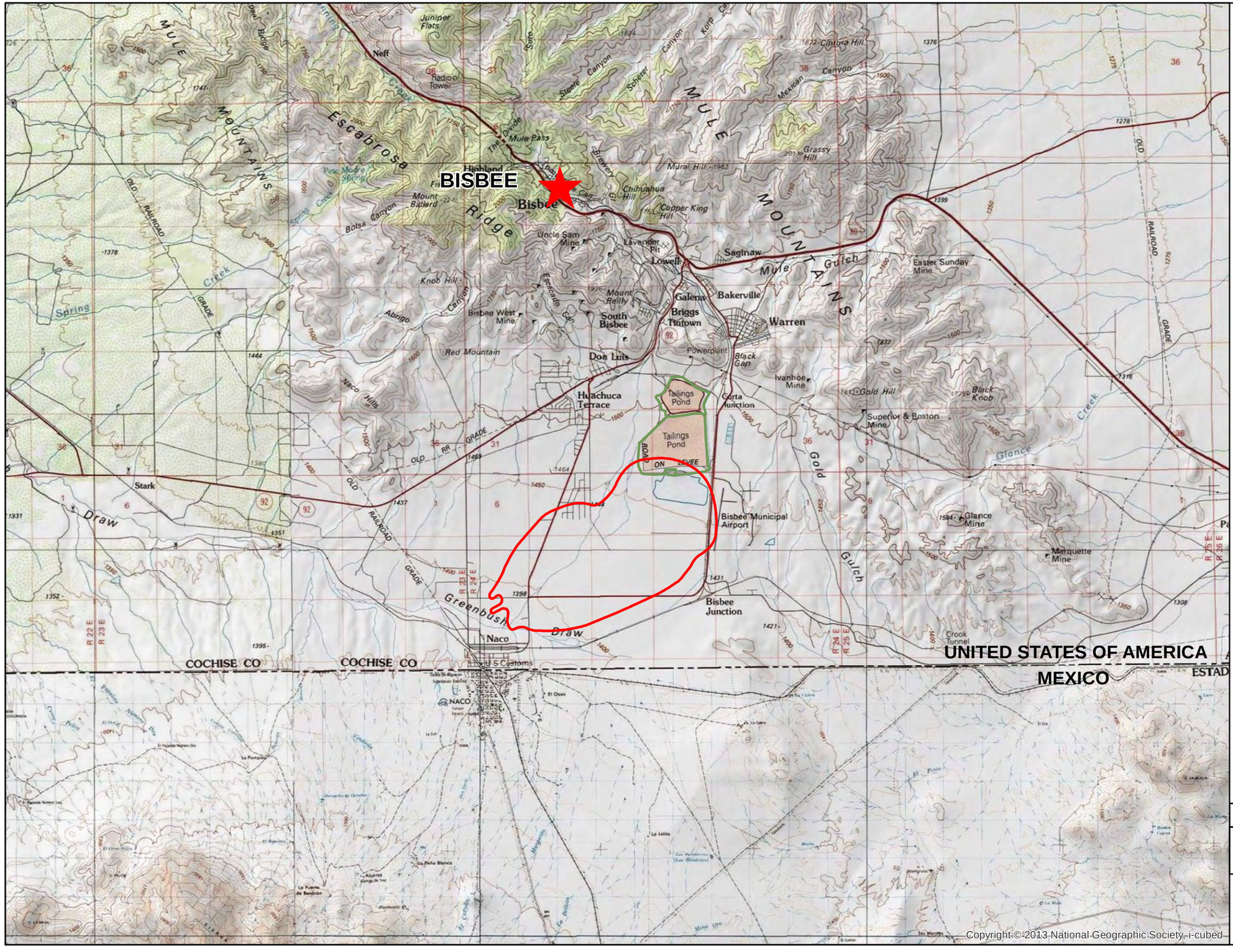
[1] Depth to water measurement provided by Arizona Water Company

[2] Preliminary data will be updated when well survey is conducted

[3] Depth to water measurement provided by Naco Water Company

[4] Well previously identified as ROGERS 803

FIGURES



Legend

- CTSA Facility
- Estimated 250 mg/L Sulfate Concentration Contour for Third Quarter 2020

Miles

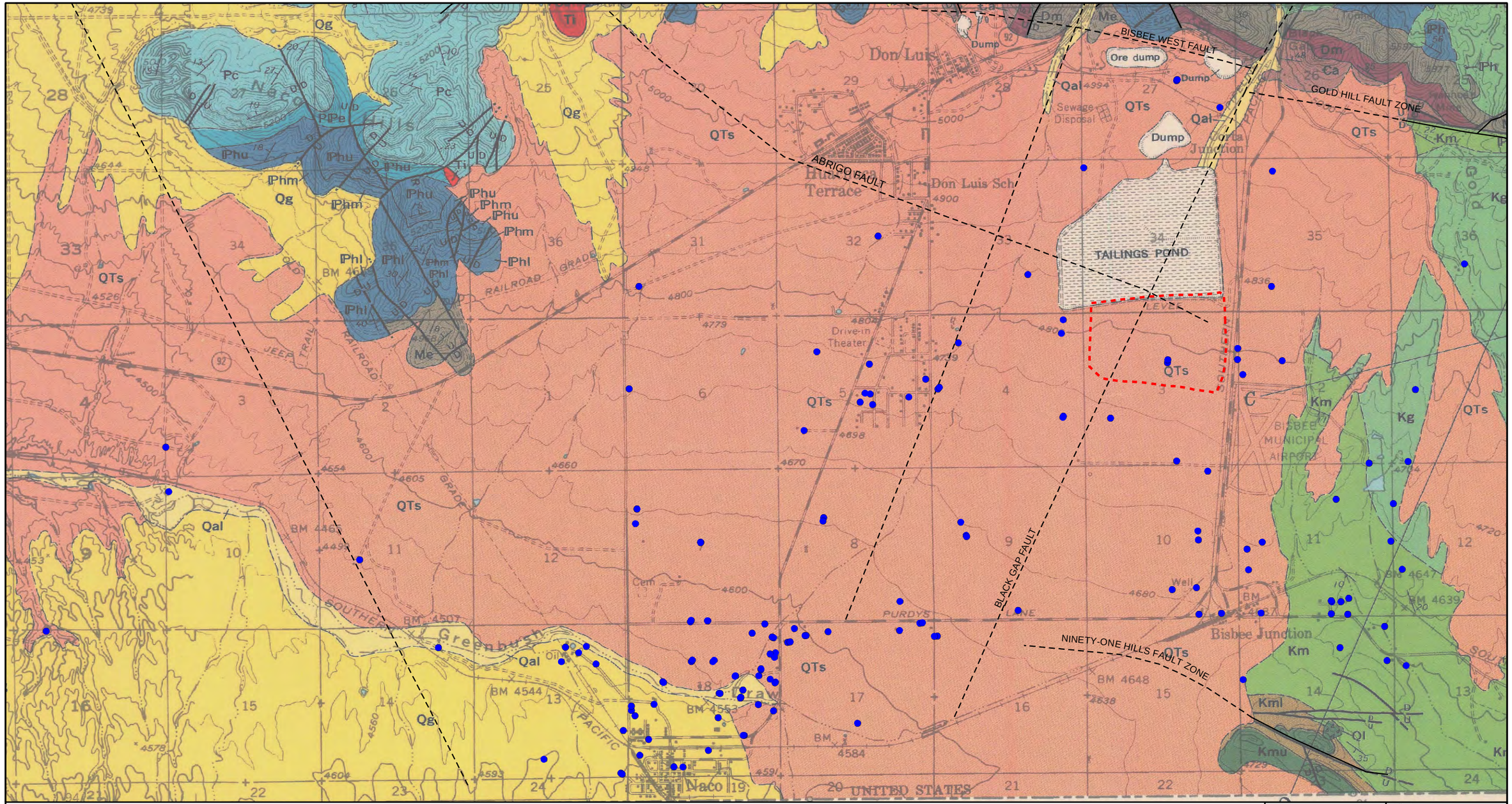
0 1.5 3

Notes:
Projection: UTM Zone 12N NAD83

Date	File ID
3/15/2021	055038-526A

CLEAR CREEK ASSOCIATES

FIGURE 1
PROJECT LOCATION MAP



Legend

- Monitoring Location
- Fault (dashed where inferred)
- Former Evaporation Ponds

Geologic Unit - Hayes and Landis (1964)

Basin Fill
- Qal - Quaternary Alluvium
- Qg - Quaternary Gravel
- QTs - Quaternary Tertiary sediment
- Ti - Tertiary Intrusive

Bisbee Group
- Kc - Cintura Formation (not shown)
- Kmu - Upper Mural Limestone
- Kml - Lower Mural Limestone
- Km - Morita Formation
- Kg - Glance Conglomerate

Paleozoic Sedimentary Formations
- Pc - Colina Limestone
- PPe - Earp Formation
- Phu, Phm, Phl - Horquilla Limestone
- Me - Escabrosa Limestone
- Dm - Martin Limestone
- Ca - Abrigo Limestone

See Figure 3 for Monitoring Location Names

Scale (Feet)

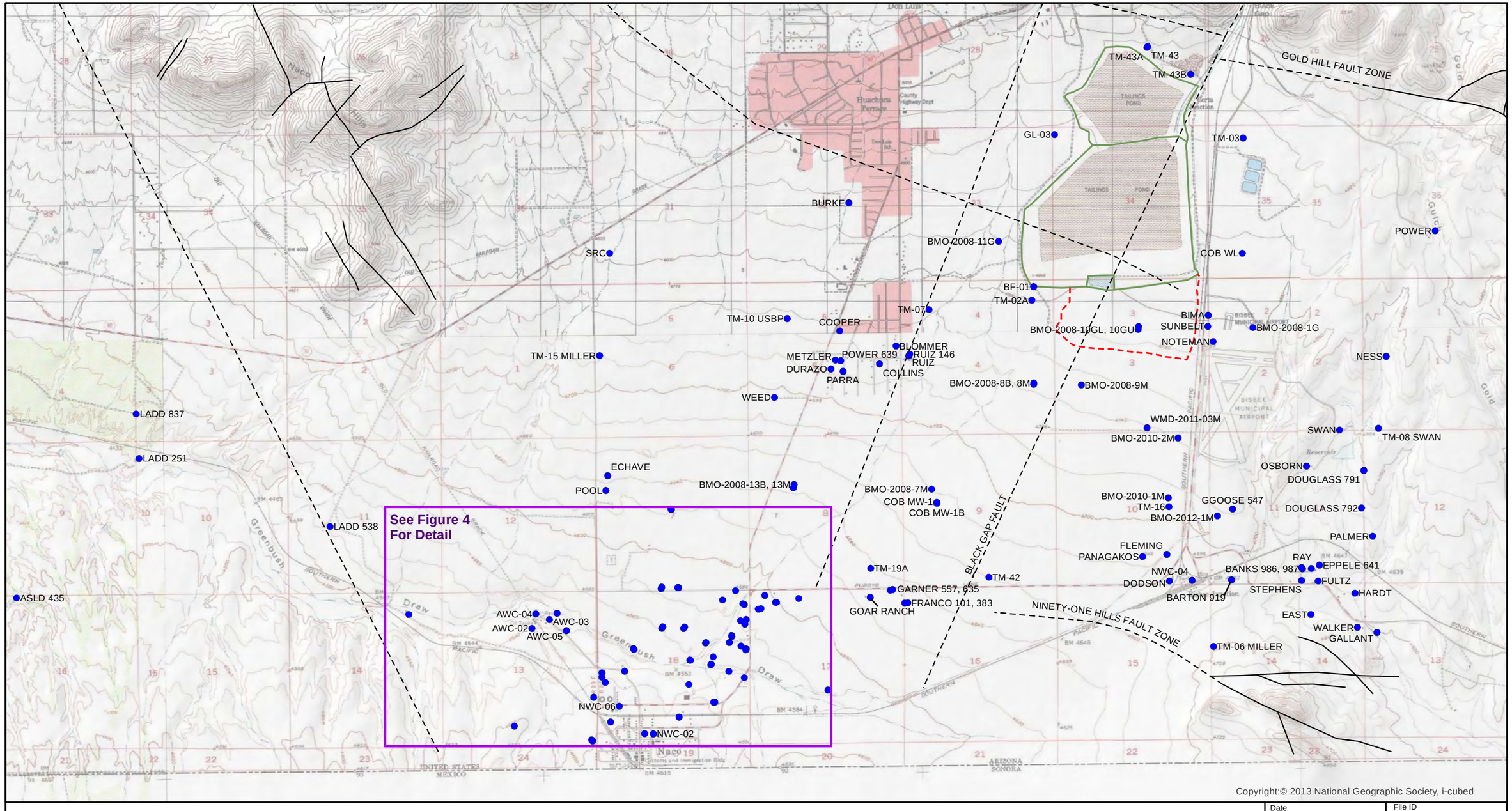
0 3,000 6,000

Projection: UTM Zone 12N NAD83
Geology reprinted from Hayes and Landis (1964) USGS Miscellaneous Geologic Investigations I-418

Date: 10/12/2020
File ID: 055038-554

CLEAR CREEK ASSOCIATES

FIGURE 2
GEOLOGIC MAP
WITH MONITORING LOCATIONS



Legend

- Monitoring Location
- Former Evaporation Ponds
- CTSA Facility
- Fault (dashed where inferred)

Scale (Feet)

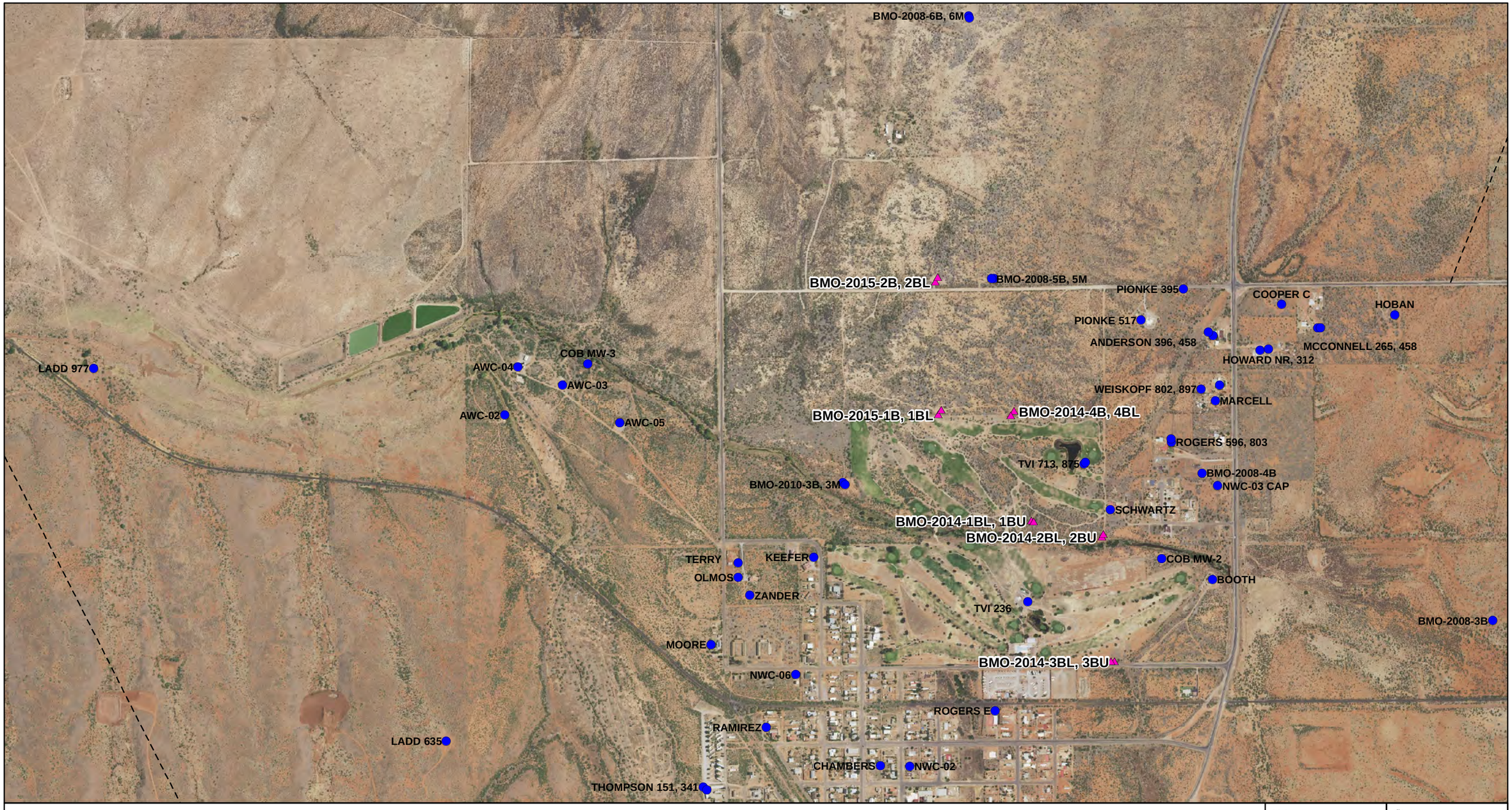
0 3,000 6,000

Projection: UTM Zone 12N NAD83

Date	File ID
10/12/2020	055038-555

CLEAR CREEK ASSOCIATES

FIGURE 3
GROUNDWATER
MONITORING LOCATIONS



Legend

- Expanded Goundwater Monitoring Program Well
- Existing Well

Scale (Feet)

0 1,000 2,000

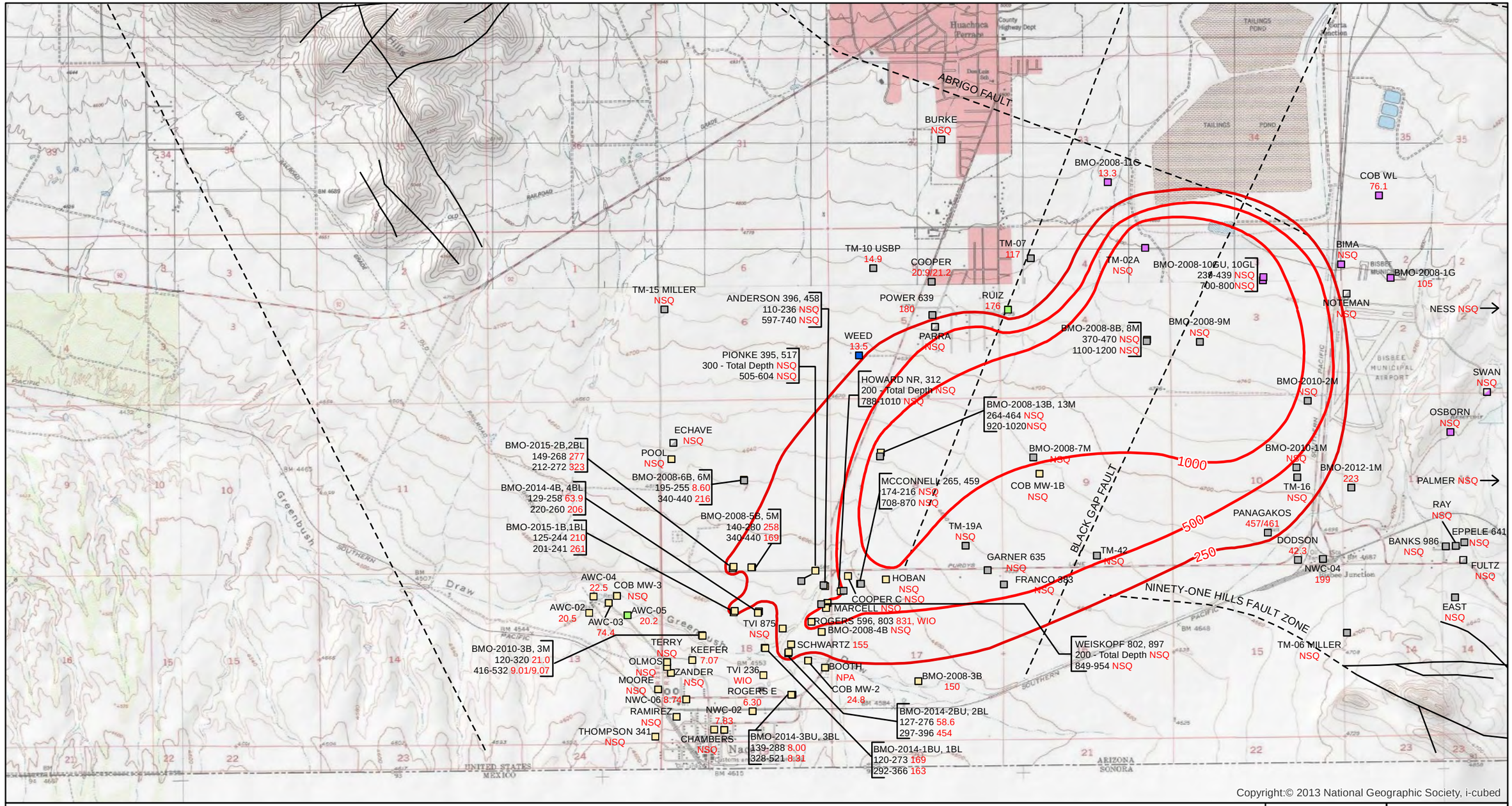
Projection: UTM Zone 12N
NAD83

Date 11/8/2019

File ID 055038-539

CLEAR CREEK ASSOCIATES

FIGURE 4
NACO AREA
WELL SITES



Copyright:© 2013 National Geographic Society, i-cubed

Legend

- NWC-02 Well ID
- 7.83 SO4 Concentration (mg/L) Duplicate results separated by "/"
- SO4 Concentration Contour
- Fault (dashed where inferred)

Co-located Wells

- Well ID
- Screen (ft bls): Sulfate Levels (mg/L)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

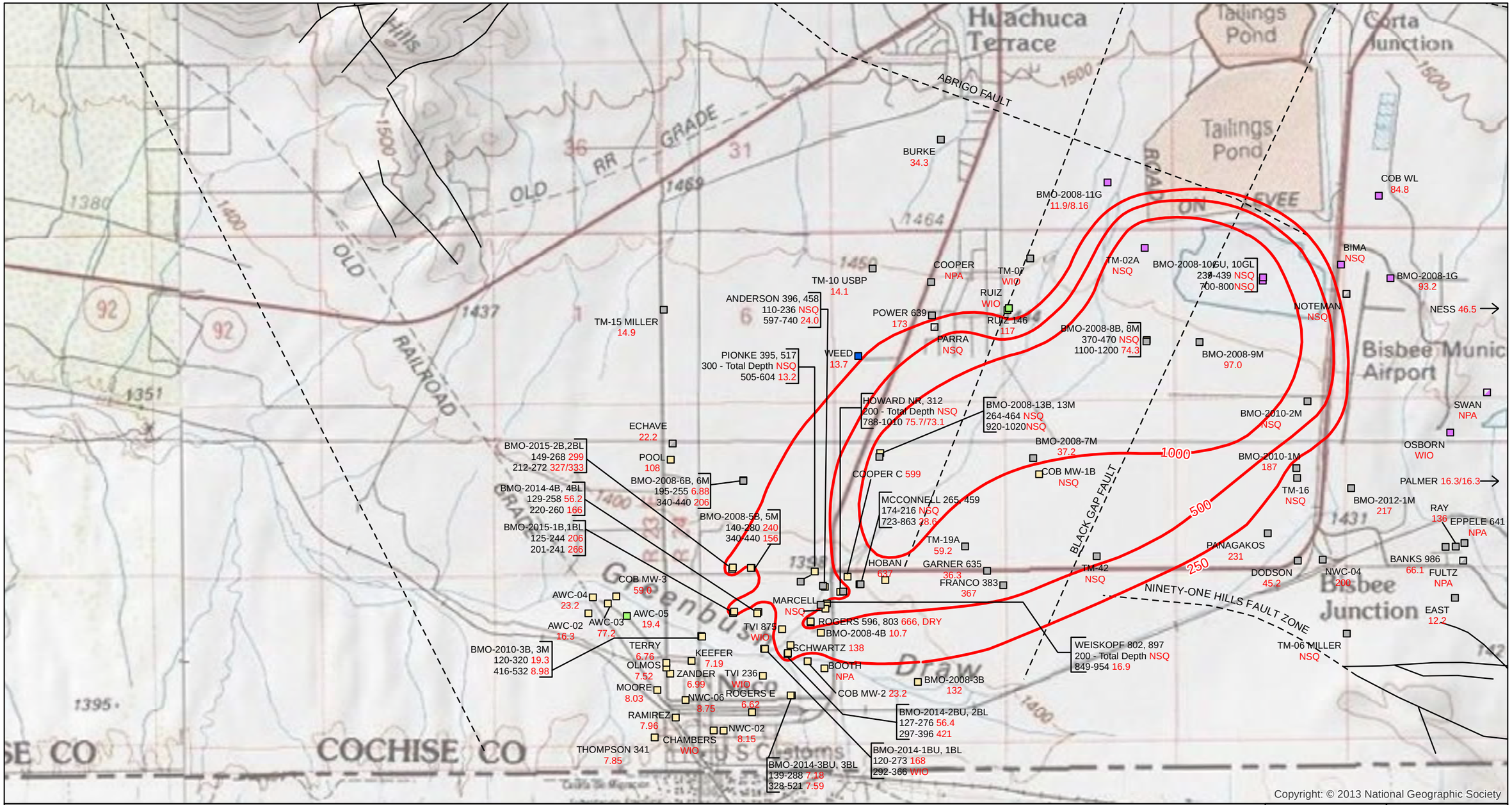
NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
mg/L = milligrams per liter
ft bls = feet below land surface
Sulfate contours are based on represented and historical data.
Projection: UTM Zone 12N NAD83

Scale (Feet)
0 3,000 6,000

Date 3/20/2020
File ID 055038-543

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FIGURE 5
SULFATE CONCENTRATIONS IN SITE-WIDE GROUNDWATER SAMPLES FOR FIRST QUARTER 2020



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Legend

- NWC-02 Well ID
- 8.15 SO4 Concentration (mg/L) Duplicate results separated by "/"
- SO4 Concentration Contour
- Fault (dashed where inferred)

Co-located Wells

- Well ID
- Screen (ft bls): Sulfate Levels (mg/L)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

ft bls = feet below land surface
mg/L = milligrams per liter
NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
Sulfate contours are based on represented and historical data.

Scale (Feet)

0 3,000 6,000

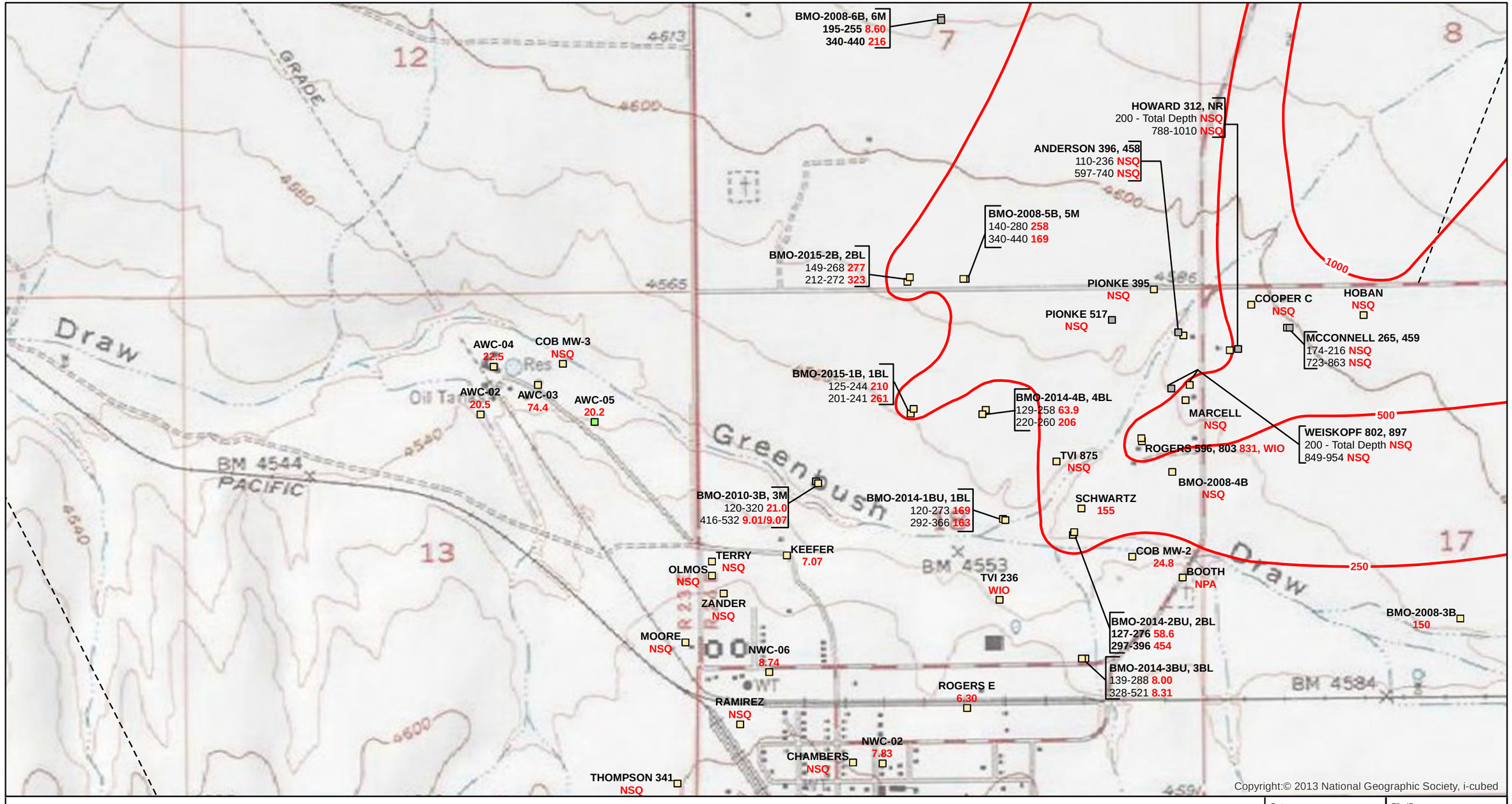
Projection: UTM Zone 12N NAD83

Date 10/26/2020

File ID 055038-550

CLEAR CREEK ASSOCIATES

FIGURE 6
SULFATE CONCENTRATIONS IN SITE-WIDE GROUNDWATER SAMPLES FOR THIRD QUARTER 2020



Legend

- **NWC-02** Well ID
- 7.83 Sulfate Concentration (mg/L)
- Duplicate results separated by "/"
- Sulfate Concentration Contour
- Fault (Inferred)

Co-located Wells
- Well ID
- Screen (ft bls): Sulfate Levels (mg/L)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
mg/L = milligrams per liter
ft bls = feet below land surface
Sulfate contours are based on represented and historical data.

Scale (Feet)
0 1,000 2,000

Projection: UTM Zone12N
NAD83

Date 3/25/2020

File ID 055038-545

CLEAR CREEK ASSOCIATES

FIGURE 7
SULFATE CONCENTRATIONS AT THE WEST EDGE OF THE PLUME FOR FIRST QUARTER 2020

BMO-2008-6B, 6M
195-255 6.88
340-440 206

HOWARD NR, 312
200 - Total Depth NSQ
788-1010 75.7/73.1

ANDERSON 396, 458
110-236 NSQ
597-740 24.0

BMO-2008-5B, 5M
140-280 240
340-440 156

BMO-2015-2B, 2BL
149-268 299
212-272 327/333

PIONKE 395
NSQ

COOPER C
599

HOBAN
637

PIONKE 517
13.2

MCCONNELL 265, 459
174-216 NSQ
723-863 28.6

BMO-2015-1B, 1BL
125-244 206
201-241 266

BMO-2014-4B, 4BL
129-258 56.2
220-260 166

WEISKOPF 802, 897
200 - Total Depth NSQ
849-954 16.9

MARCELL
NSQ

ROGERS 596, 803 666, DRY

TVI 875
WIO

BMO-2008-4B
10.7

AWC-04
23.2

COB MW-3
59.0

AWC-03
77.2

AWC-02
16.3

AWC-05
19.4

BMO-2010-3B, 3M
120-320 19.3
416-532 8.98

BMO-2014-1BU, 1BL
120-273 168
292-366 WIO

SCHWARTZ
138

TERRY
6.76

KEEFER
7.19

OLMOS
7.52

ZANDER
6.99

BMO-2014-2BU, 2BL
127-276 56.4
297-396 421

COB MW-2
23.2

BOOTH
NPA

TVI 236
WIO

BMO-2008-3B
132

MOORE
8.03

NWC-06
8.75

BMO-2014-3BU, 3BL
139-288 7.18
328-521 7.59

ROGERS E
6.62

RAMIREZ
7.96

CHAMBERS
WIO

NWC-02
8.15

THOMPSON 341
7.85

1000
500
250

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Legend

NWC-02 Well ID
8.15 Sulfate Concentration (mg/L)
Duplicate results separated by "/"
Sulfate Concentration Contour
Fault (Inferred)

Co-located Wells
Well ID
Screen (ft bls): Sulfate Levels (mg/L)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate - Estimated

Undifferentiated Bisbee Group: Cintura, Mural Limestone, and Morita Formations

ft bls = feet below land surface
mg/L = milligrams per liter
NPA = No Property Access
NSQ = Not Scheduled for Quarter
WIO = Well Inoperable
Sulfate contours are based on represented and historical data.

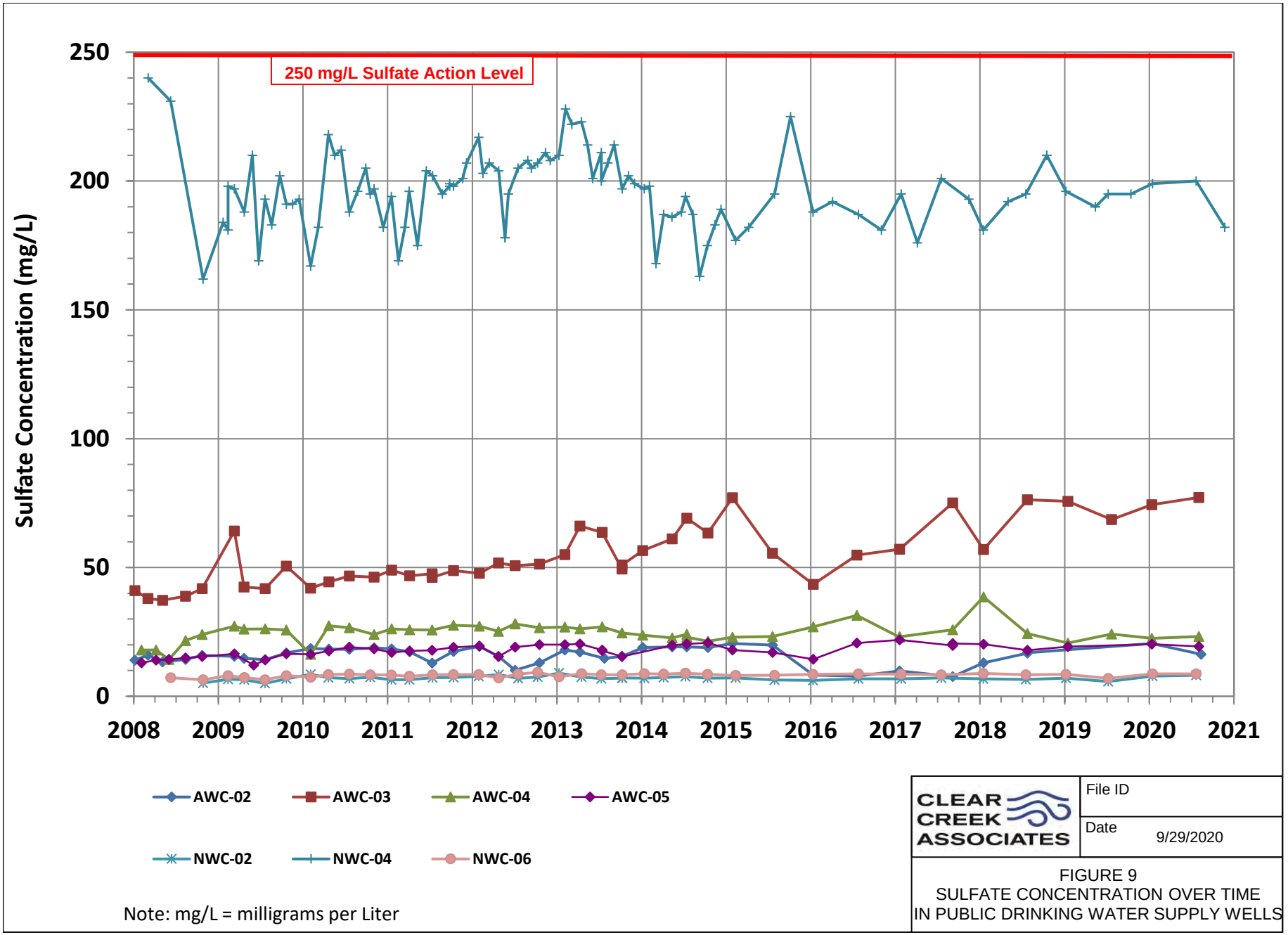
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone12N
NAD83

Date 10/26/2020
File ID 055038-551

CLEAR CREEK ASSOCIATES

FIGURE 8
SULFATE CONCENTRATIONS AT THE WEST EDGE OF THE PLUME FOR THIRD QUARTER 2020



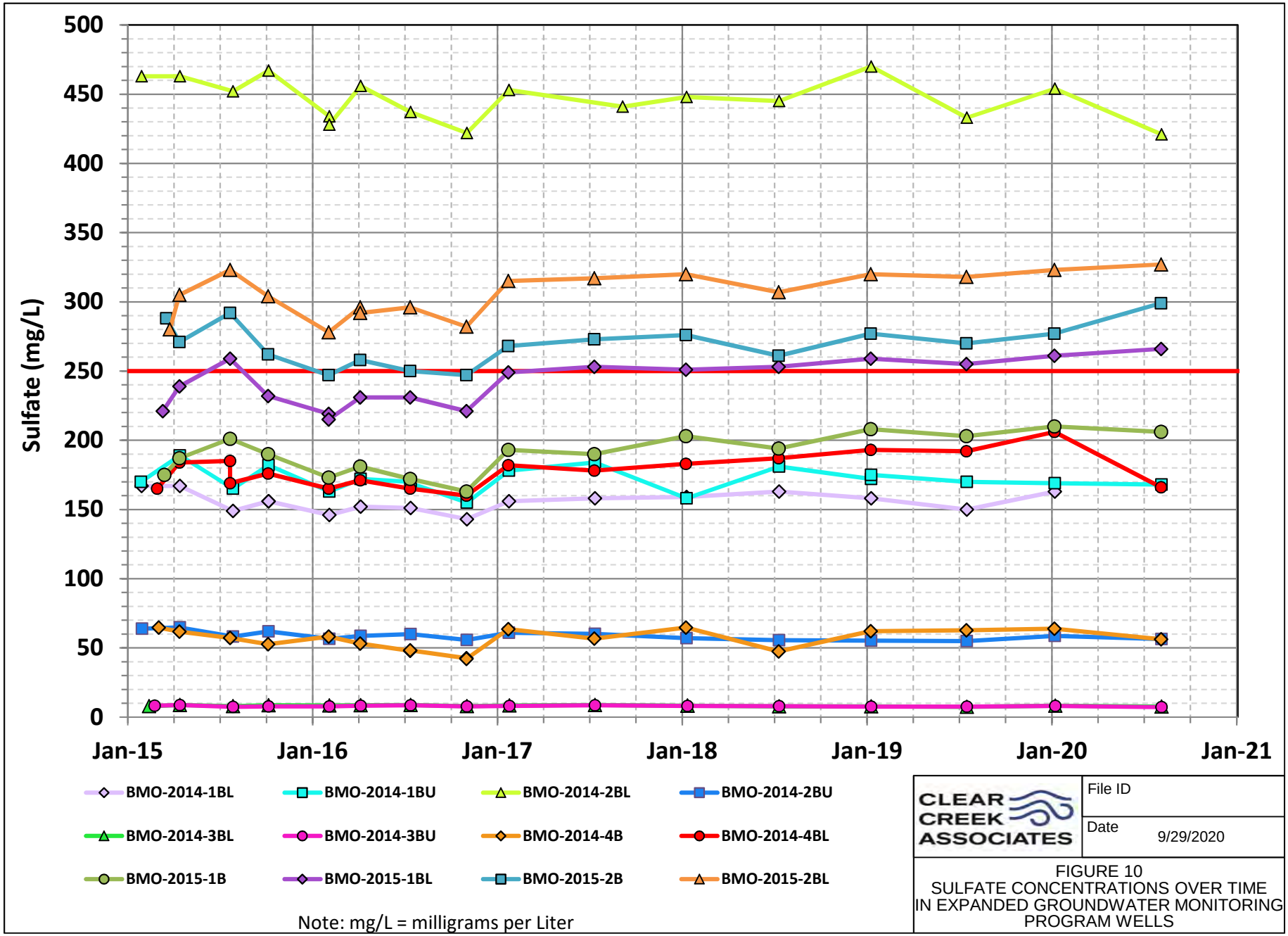
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 9/29/2020

FIGURE 9
SULFATE CONCENTRATION OVER TIME
IN PUBLIC DRINKING WATER SUPPLY WELLS



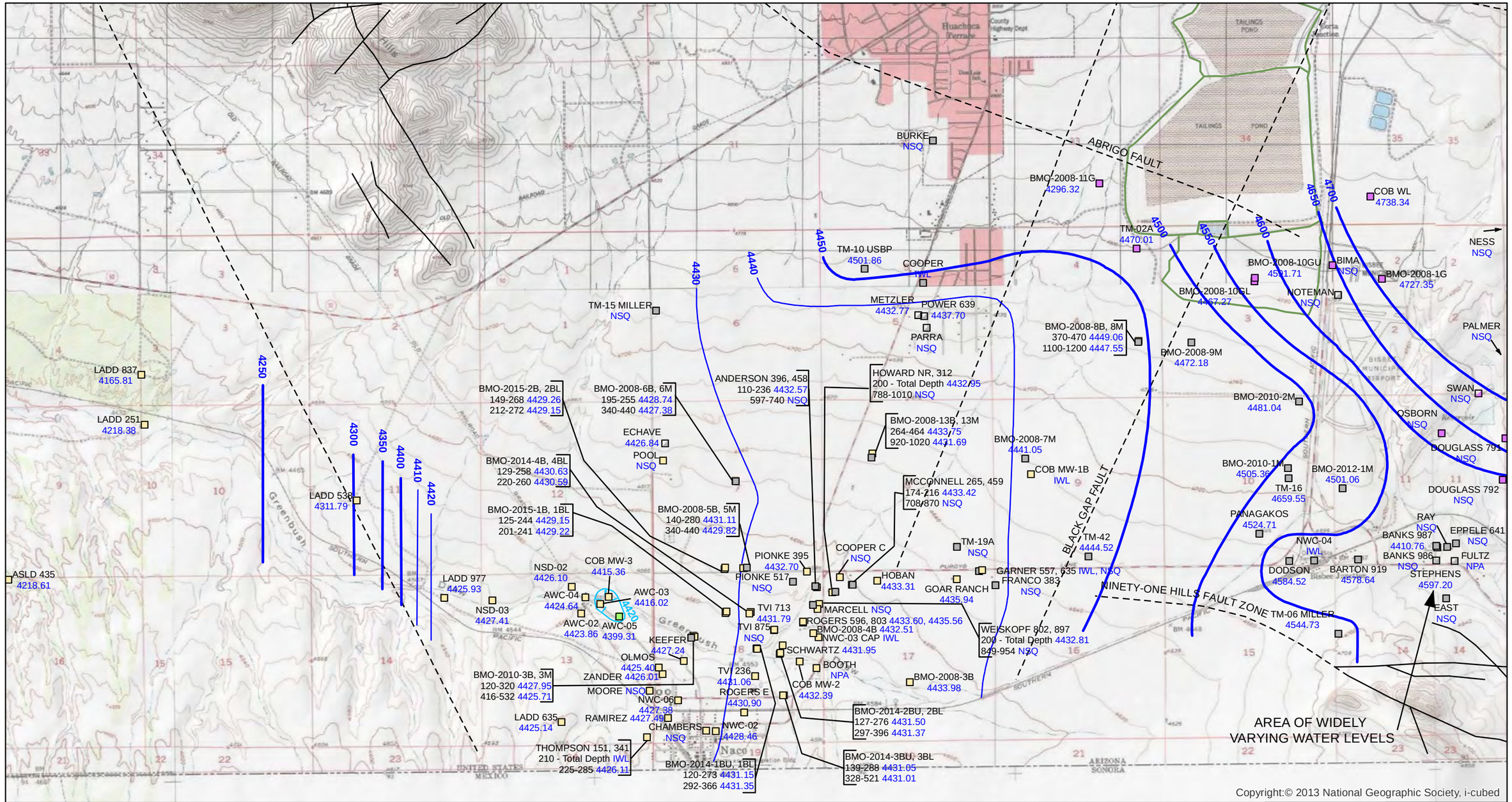
Note: mg/L = milligrams per Liter

CLEAR CREEK ASSOCIATES

File ID

Date 9/29/2020

FIGURE 10
SULFATE CONCENTRATIONS OVER TIME
IN EXPANDED GROUNDWATER MONITORING
PROGRAM WELLS



Legend

- AWC-05 Well ID
- 4399.31 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contours (10 ft)
- Groundwater Elevation Contours (50 ft) (dashed where inferred)
- Groundwater Depression
- Faults (dashed where inferred)
- CTSA Facility
- Co-located Wells
  - Well ID
  - Screen (ft bls): Water Elevation (ft amsl)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not Scheduled for Quarter
ft amsl = feet above mean sea level
ft bls = feet below land surface
LADD 635 and NWC-03 CAP were not used for contouring

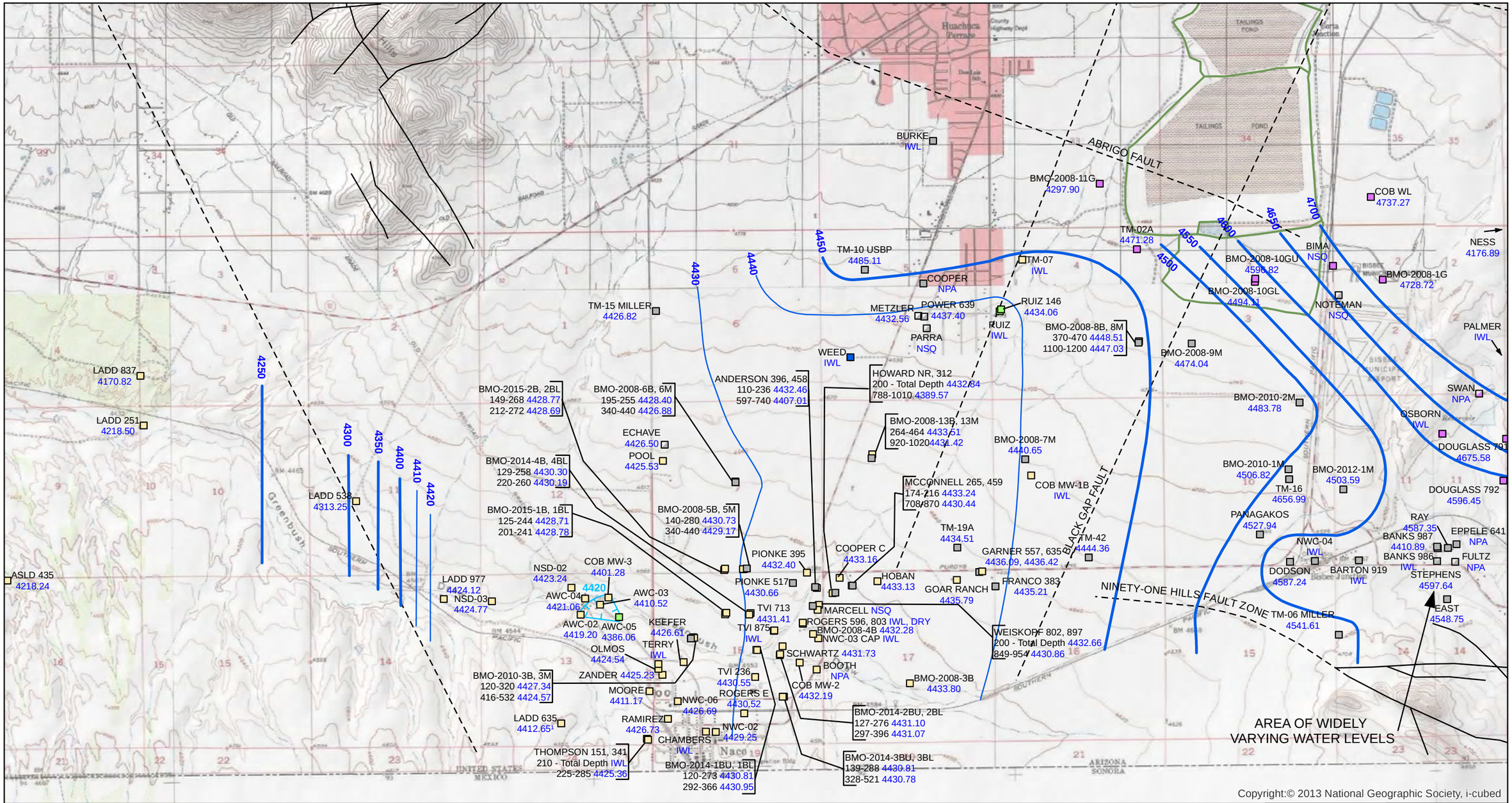
Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N NAD83

Date 3/24/2020
File ID 055038-544

CLEAR CREEK ASSOCIATES

FIGURE 11
SITE-WIDE
GROUNDWATER ELEVATIONS
FOR FIRST QUARTER 2020



Legend

- AWC-05 4386.06 — Well ID; Groundwater Elevation (ft amsl)
- Groundwater Elevation Contours (10 ft)
- Groundwater Elevation Contours (50 ft)
- Groundwater Depression
- Faults (dashed where inferred)
- CTSA Facility

Co-located Wells
- Well ID
- Screen (ft bls): Water Elevation (ft amsl)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

Notes:
[1] Pump was running at time of depth to water measurement
IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not Scheduled for Sampling
ft amsl = feet above mean sea level
ft bls = feet below land surface

Scale (Feet)
0 3,000 6,000

Projection: UTM Zone 12N NAD83

Date 2/9/2021

File ID 055038-548

CLEAR CREEK ASSOCIATES

FIGURE 12
SITE-WIDE GROUNDWATER ELEVATIONS FOR THIRD QUARTER 2020

AWC WELLFIELD

BMO-2008-6B 4428.74

BMO-2015-2B, 2BL
149-268 4429.26
212-272 4429.15

BMO-2008-5B 4431.11

BMO-2014-4B, 4BL
129-258 4430.63
220-260 4430.59

BMO-2015-1B, 1BL
125-244 4429.15
201-241 4429.22

BMO-2014-1BU, 1BL
120-273 4431.15
292-366 4431.35

BMO-2014-2BU, 2BL
127-276 4431.50
297-396 4431.37

BMO-2014-3BU, 3BL
139-288 4431.05
328-521 4431.01

NSD-02 4426.10
AWC-04 4424.64
AWC-03 4416.02
AWC-02 4423.86
AWC-05 4399.31
COB MW-3 4415.36
NSD-03 4427.41
LADD 977 4425.93
LADD 635 4425.14

BMO-2010-3B 4427.95
TERRY NSQ
KEEFER 4427.24
OLMOS 4425.40
ZANDER 4426.01
MOORE NSQ
NWC-06 4427.38
RAMIREZ 4427.49
THOMPSON 151, 341
Total Depth - 210 IWL
225-285 4426.11
CHAMBERS NSQ
NWC-02 4428.46
ROGERS E 4430.90

TVI 713 4431.79
TVI 875 NSQ
SCHWARTZ 4431.95
TVI 236 4431.06
COB MW-2 4432.39
BOOTH NPA

PIONKE 395 4432.70
COOPER C NSQ
HOBAN 4433.31
ANDERSON 396 4432.57
MCCONNELL 265 4433.42
HOWARD NR 4432.95
WEISKOPF 802 4432.81
MARCELL NSQ
ROGERS 596, 803
230-290 4433.60
? -140 4435.56
BMO-2008-4B 4432.51
NWC-03 CAP IWL
BMO-2008-3B 4433.98

4425 4426 4427 4426 4400 4425 4426 4427 4428 4429 4430 4431 4432 4433

GRADE Draw Draw Greenbush PACIFIC

BM 4544 BM 4584

12 13 17 18 8

4513 4600 4680 4565 4540 4640

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Legend

- **AWC-02** Well ID
- 4423.86 Groundwater Elevation (ft amsl)
- Groundwater Elevation Contour (ft amsl)
- Groundwater Elevation Depression Contour (ft amsl)
- Faults (dashed where inferred)

Co-located Wells
- Well ID
- Screen (ft bls): Water Elevation (ft amsl)

Screened Formation
- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not scheduled for Quarter
ft amsl = feet above mean sea level
ft bls = feet below land surface

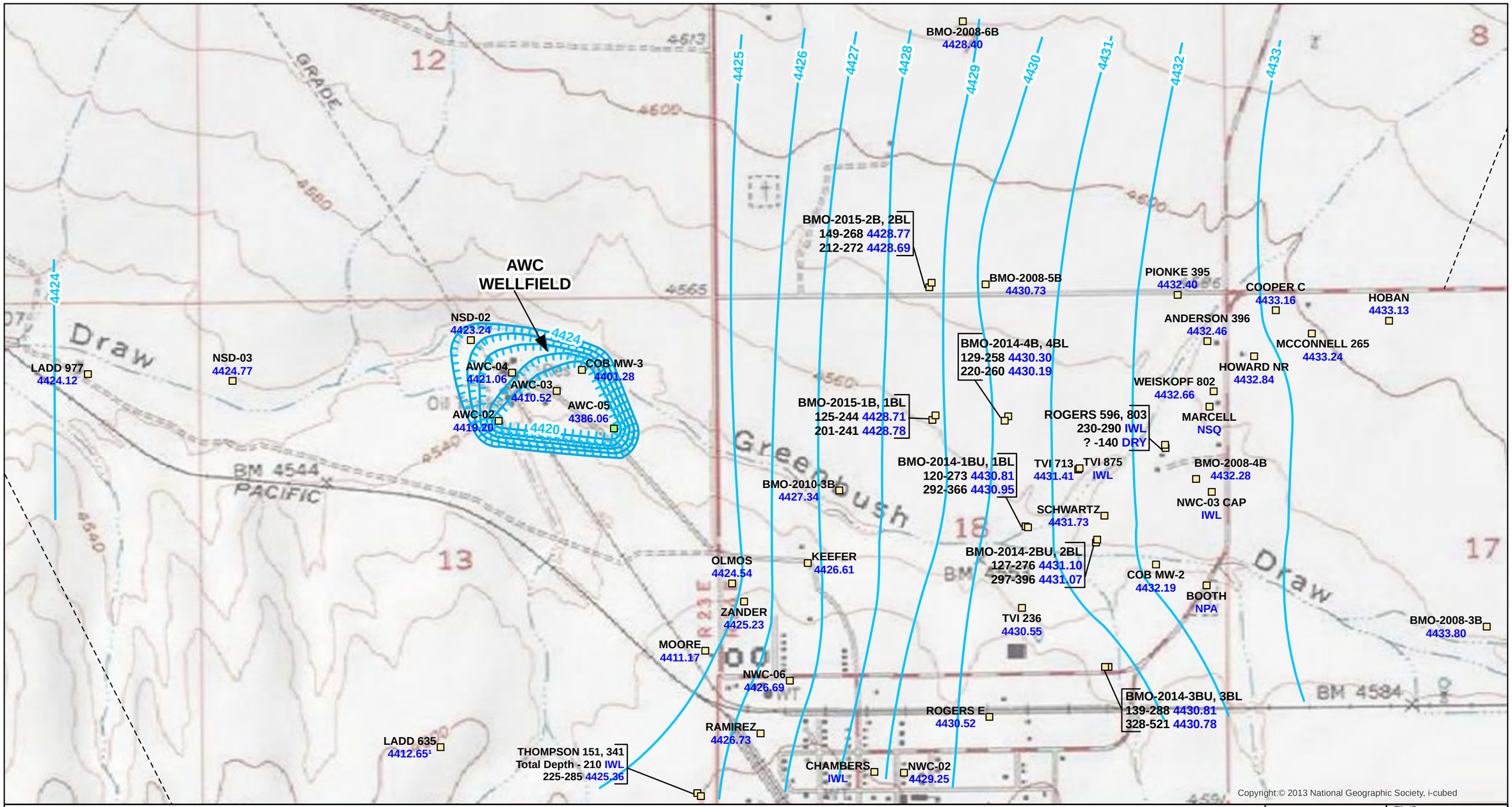
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone 12N NAD83

Date 11/20/19
File ID 055038-546

CLEAR CREEK ASSOCIATES

FIGURE 13
BASIN FILL
GROUNDWATER ELEVATIONS
AT THE WEST EDGE OF THE PLUME
FOR FIRST QUARTER 2020



Legend

- **AWC-02** Well ID
- **4419.20** Groundwater Elevation (ft amsl)
- Groundwater Elevation Contour (ft amsl)
- Groundwater Elevation Depression Contour (ft amsl)
- Faults (dashed where inferred)

Co-located Wells

- Well ID
- Screen (ft bls): Water Elevation (ft amsl)

Screened Formation

- Basin Fill
- Basin Fill and Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group
- Undifferentiated Bisbee Group - Estimated
- Undifferentiated Bisbee Group and Glance Conglomerate
- Glance Conglomerate
- Glance Conglomerate-Estimated

Notes:
¹Pump was running at time of depth to water measurement
IWL = Inaccesible for Water Level
NPA = No Property Access
NSQ = Not Scheduled for Sampling
ft amsl = feet above mean sea level
ft bls = feet below land surface

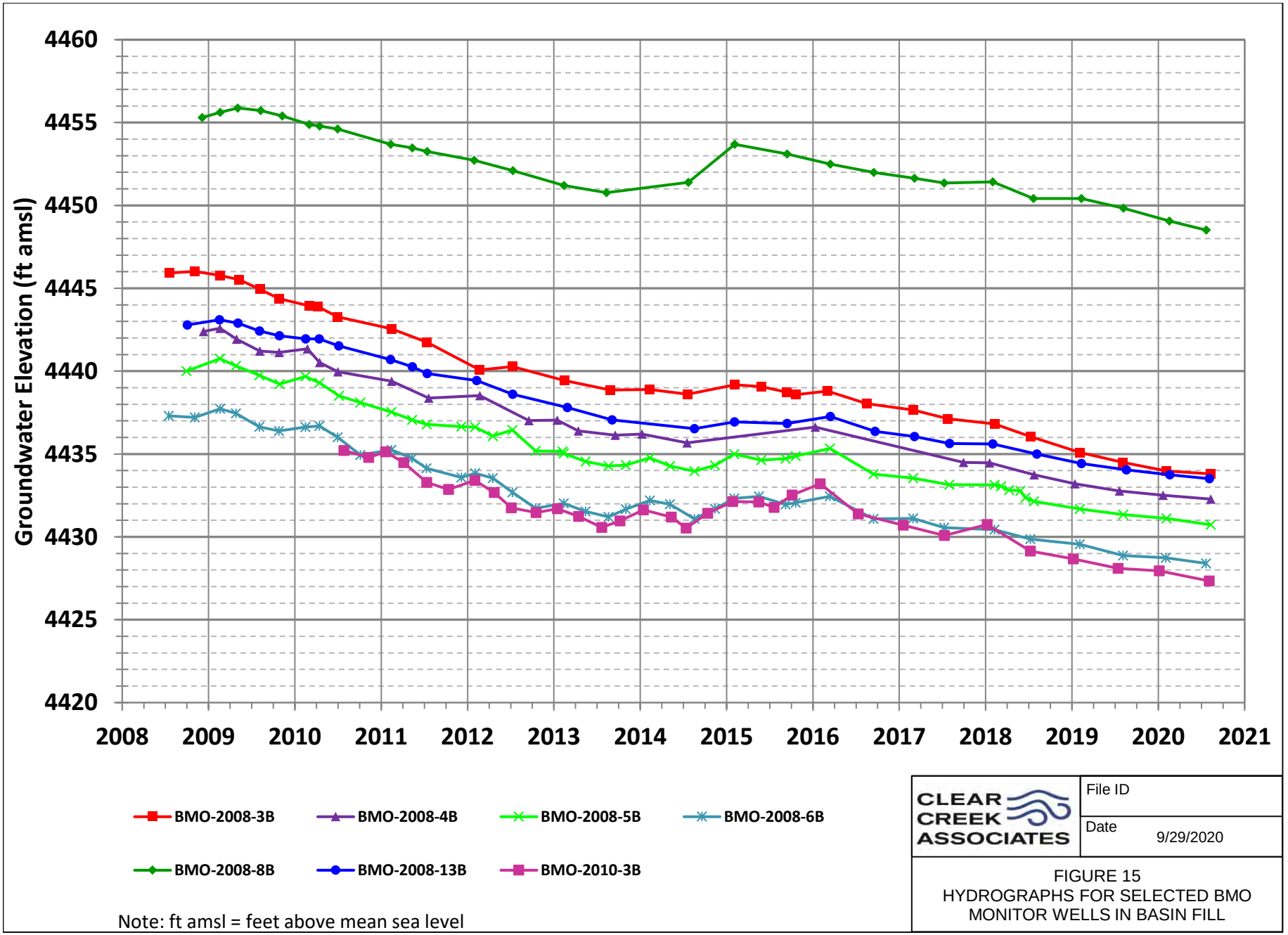
Scale (Feet)
0 1,000 2,000

Projection: UTM Zone 12N NAD83

Date	File ID
2/9/2021	055038-549

CLEAR CREEK ASSOCIATES

FIGURE 14
BASIN FILL
GROUNDWATER ELEVATIONS
AT THE WEST EDGE OF THE PLUME
FOR THIRD QUARTER 2020



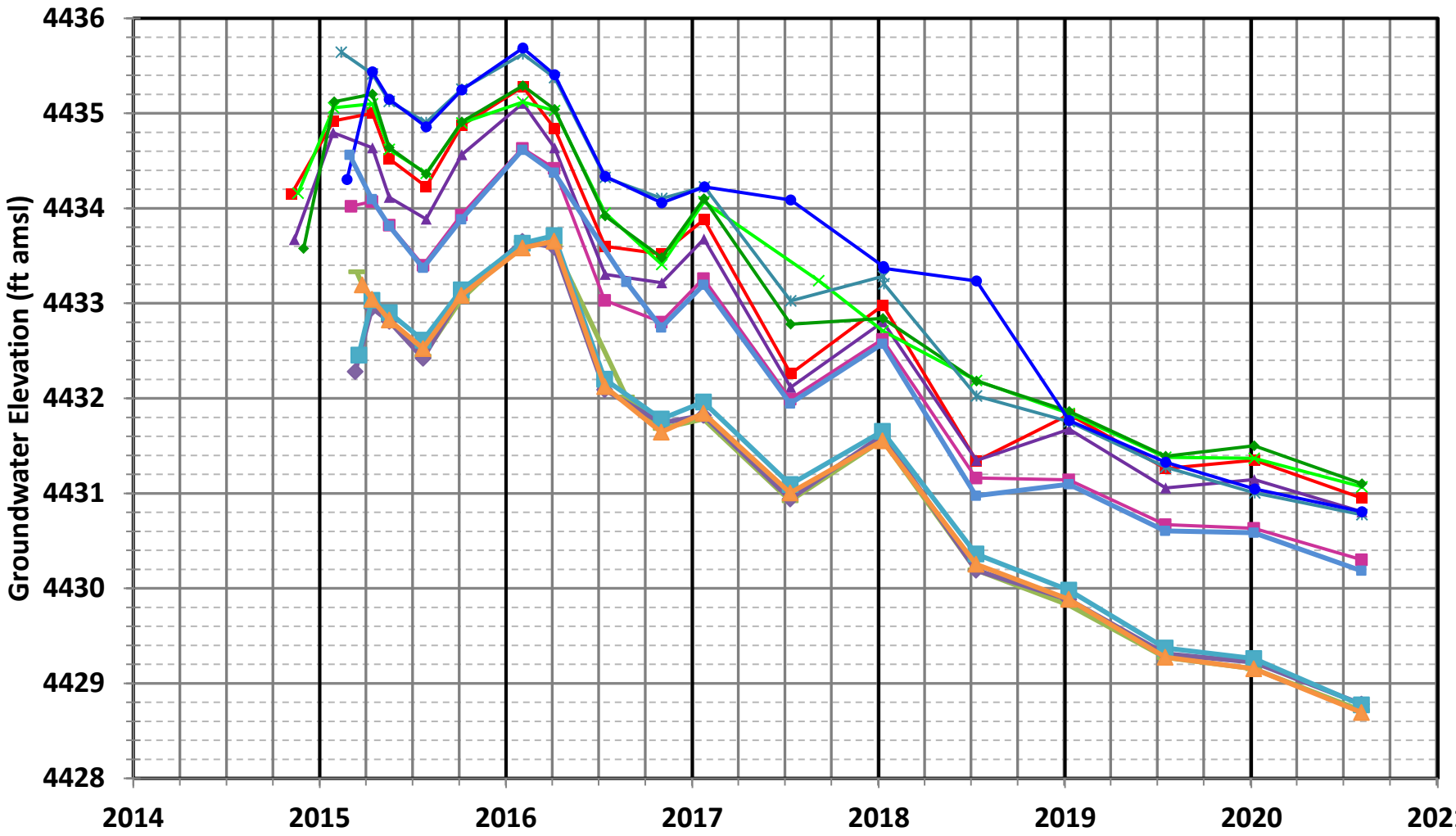
Note: ft amsl = feet above mean sea level

CLEAR CREEK ASSOCIATES

File ID

Date 9/29/2020

FIGURE 15
HYDROGRAPHS FOR SELECTED BMO MONITOR WELLS IN BASIN FILL



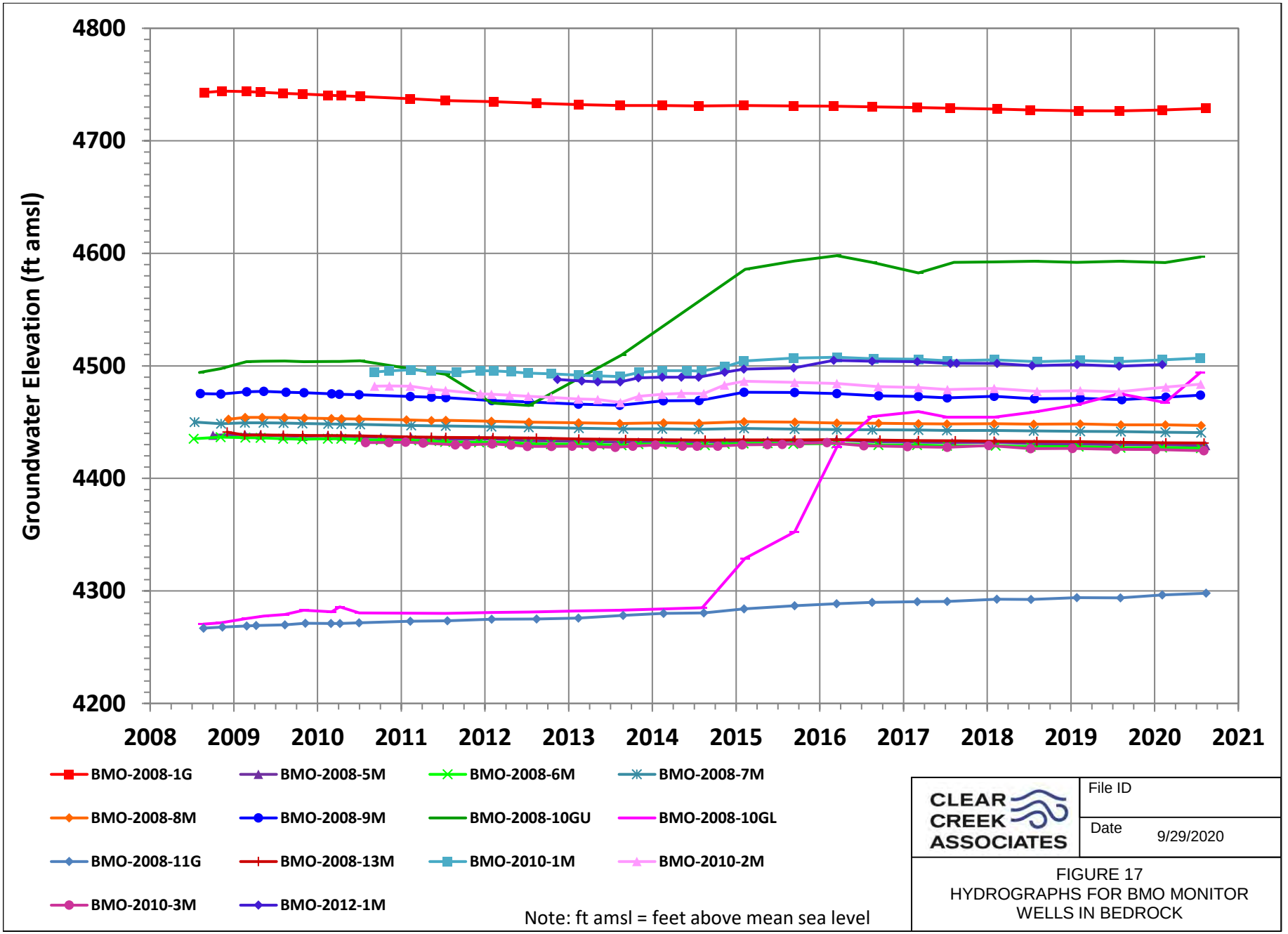
ft amsl = feet above mean sea level

CLEAR CREEK ASSOCIATES

File ID

Date 9/29/2020

FIGURE 16
HYDROGRAPHS FOR BMO MONITOR WELL IN BASIN FILL FOR EXPANDED GROUNDWATER MONITORING PROGRAM



CLEAR CREEK ASSOCIATES

File ID

Date 9/29/2020

FIGURE 17
HYDROGRAPHS FOR BMO MONITOR WELLS IN BEDROCK

APPENDICES

APPENDIX A

GROUNDWATER SAMPLING FORMS

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-6-20
Well ID:	Anderson 396	Weather:	Clear, 50's
ADWR No:	613396	Sampler:	R T

WELL DATA

Well Depth (ft bls):	295
Casing Diameter (in):	8
Static Water Level (ft bmp):	155.94' bmp
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	Inoperable Pump

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

WLO

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [x] Other: Well inoperable, WLO

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments: A lot of junk was on top of it, making it hard to find. Pad around well is deteriorated

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-13-20

Well ID: AWC-02 | Weather: Clear 50's

ADWR No: 616580 | Sampler: R Tinnell

WELL DATA

Well Depth (ft bls):	333
Casing Diameter (in):	20
Static Water Level (ft bmp):	123.78' bmp
Casing Volume (gal):	3412.38 x3 = 10237
Total Volume Purged (gal):	10900

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
~~20~~	~~16.31~~

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1215	Pump On						
1235	20	100	2000	~~Avg~~ 7.72	19.7	525.5	Clear, no odor
1250	35	100	3500	7.70	19.8	545.9	
1316	60	100	6000	7.69	19.7	532.2	
1340	85	100	8500	7.39	20.6	526.0	
1404	109	100	10,900				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-02	1358	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-13-20
Well ID:	AWC-83	Weather:	Clear, 50s
ADWR No:	616585	Sampler:	RTannell

WELL DATA

Well Depth (ft bls):	270
Casing Diameter (in):	16
Static Water Level (ft bmp):	123.50 *
Casing Volume (gal):	15 29.46 x3 = 4588.38
Total Volume Purged (gal):	24,000

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
(16)	(10.44)
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1100	Pump On						
1103	3	800	2,400	7.66	19.3	514.9	
1109	9	800	7,200	7.17	19.3	516.9	
1110	10	8000	8,000	7.64	19.3	513.9	
1130	30	800	24,000				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-83	1117	Poly	250mL	1	200	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: * WL from AWC sounder 1-13-20.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-13-20
Well ID:	AWC-04	Weather:	Clear, 50's
ADWR No:	616584	Sampler:	RTimeV

WELL DATA

Well Depth (ft bls):	337
Casing Diameter (in):	16
Static Water Level (ft bmp):	115,84' bmp
Casing Volume (gal):	2308,91 x3 = 6927
Total Volume Purged (gal):	22940

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
~~16~~	~~10.44~~
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1136	Pump On						
1139	3	740	2220	7.36	18.5	709.7	Clear, No odor
1142	6	740	4440	7.26	18.7	714.6	
1145	9	740	6660	7.38	19.5	715.2	
1207	31	22940					Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-04	1152	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	01-13-20
Well ID:	AWC-05	Weather:	Clear, 50's
ADWR No:	590620	Sampler:	R Tinnell

WELL DATA

Well Depth (ft bls):	1183
Casing Diameter (in):	16
Static Water Level (ft bmp):	143.20
Casing Volume (gal):	10855.512 x3 = 32567
Total Volume Purged (gal):	44400

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
~~16~~	~~10.44~~
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
~~0940~~ 0943	Pump On						
0955	12	740	8880	7.15	18.7	455.1	Clear, no odor
1009	26	740	19240	7.85	19.2	449.5	
1023	40	740	29600	7.81	18.8	449.2	
1042							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot) at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
~~DUP~~ AWC-05	1035	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-21-20

Well ID: BARTON 919 | Weather: 50s, overcast

ADWR No: 644919 | Sampler: JA

WELL DATA

Well Depth (ft bls): 130

Casing Diameter (in): 6

Static Water Level (ft bmp): 113.72

Casing Volume (gal): x3 =

Total Volume Purged (gal): NA

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		V	L	O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-5-20

Well ID: BMO-2008-16 Weather: Clear

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 310

Casing Diameter (in): 5"

Static Water Level (ft bmp): 77.25

Casing Volume (gal): 236.8 x3 = 710.4

Total Volume Purged (gal): 747

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0830	Pump On						
0900	30	8.3	249	7.18	21.1	918	
0920	50	8.3	415	7.19	21.7	915	
0940	70	8.3	581	7.20	21.6	912	
1000	90	8.3	747	7.19	21.7	914	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-16	1000	PL	250	1	300.0	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 232.2

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-6-20

Well ID: BMO-2008-3B Weather: Clear

ADWR No: Sampler: Christopher L Shumm

WELL DATA

Well Depth (ft bls):	260
Casing Diameter (in):	5"
Static Water Level (ft bmp):	149.99
Casing Volume (gal):	112.3 x3 = 337
Total Volume Purged (gal):	540

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1000	Pump On						
1010	10	27	135	7.54	21.3	654	
1015	15	27	405	7.56	21.1	653	
1020	20	27	540	7.57	20.0	655	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-3B	1020	PL	250	1	300	Ice	X

WATER LEVEL MEASUREMENT COLLECTION

- [X] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [X] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 110.1

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-22-20

Well ID: BMO-2008-4B | Weather: pt. cloudy, 60s

ADWR No: 910096 | Sampler: JA

WELL DATA

Well Depth (ft bls): 610

Casing Diameter (in): 5

Static Water Level (ft bmp): 140.66

Casing Volume (gal): x3 =

Total Volume Purged (gal): NA

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

WL 0

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-6-20

Well ID: BMO-2008-5B Weather: Clear

ADWR No: Sampler: Christopher L Shuman

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 5"

Static Water Level (ft bmp): 153.99

Casing Volume (gal): 133.7 x3 = 401.1

Total Volume Purged (gal): 675

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0830	Pump On						
0835	5	27	135	7.08	21.6	815	
0845	15	27	405	7.10	21.5	811	
0855	25	27	675	7.12	21.5	812	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-5B	0855	PL	250	1	300.00	Tic	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 131.1

CLEAN

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-6-20

Well ID: BMP 2008-5 M Weather: Clear

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 450

Casing Diameter (in): 5"

Static Water Level (ft bmp): 155.20

Casing Volume (gal): 300.6 x3 = 901.8

Total Volume Purged (gal): 990

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0725	25	18	450	7.32	22.3	665	
0745	45	18	810	7.30	22.1	663	
0755	55	18	990	7.32	22.2	662	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMP-2008-5M	0755	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: BMP 294.8

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-3-20

Well ID: BMO-2008-6B Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls):	265
Casing Diameter (in):	5"
Static Water Level (ft bmp):	198.70
Casing Volume (gal):	67.6 x3 = 202.8
Total Volume Purged (gal):	225

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0935	Pump On						
0950	15	5.1	75	7.22	21.0	270	
1005	30	5.1	150	7.26	21.2	265	
1020	45	5.1	225	7.25	21.3	264	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-6B	1020	PL	250	1	300	Thru	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 66.3

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-3-20

Well ID: BMO-2008-LM Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Stevens

WELL DATA

Well Depth (ft bls):	450
Casing Diameter (in):	5"
Static Water Level (ft bmp):	199.52
Casing Volume (gal):	255.4 x3 = 766.2
Total Volume Purged (gal):	840

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0845	Pump On						
0855	10	21	210	7.24	21.6	753	
0905	20	21	420	7.21	21.7	754	
0915	30	21	630	7.22	21.7	752	
0925	40	21	840	7.25	21.8	751	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-LM	0925	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 750.4

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-18-20

Well ID: BMO-2008-7M Weather: Sunny

ADWR No: Sampler: Christopher Stevens

WELL DATA

Well Depth (ft bls):	670
Casing Diameter (in):	5"
Static Water Level (ft bmp):	247.28
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-18-20

Well ID: BMO-2008-BB Weather: Sunny

ADWR No: Sampler: Christopher L Slemm

WELL DATA

Well Depth (ft bls): 480

Casing Diameter (in): 5"

Static Water Level (ft bmp): 304.19

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-18-20

Well ID: BMP-2008-8M Weather: Sunny

ADWR No: Sampler: Christopher L Shum

WELL DATA

Well Depth (ft bls): 1210

Casing Diameter (in): 5"

Static Water Level (ft bmp): 304.90

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: BMo-2008-9M Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 725

Casing Diameter (in): 5"

Static Water Level (ft bmp): 290.43

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-17-20

Well ID: BMO-2008-10 GL Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Blarney

WELL DATA

Well Depth (ft bls): 810

Casing Diameter (in): 5"

Static Water Level (ft bmp): 324.94

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAN

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-17-20

Well ID: BMA-2008-10GU Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls): 449

Casing Diameter (in): 5"

Static Water Level (ft bmp): 201.74

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-4-20

Well ID: BMO-2008-116 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 760

Casing Diameter (in): 5"

Static Water Level (ft bmp): 548.35

Casing Volume (gal): 215.8 x3 = 647.4

Total Volume Purged (gal): 647.4

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0610	10	8	80	7.87	24.8	340	
0630	30	8	240	7.89	24.6	342	
0700	60	8	480	7.90	24.8	340	
0720	80	8	640	7.88	24.7	341	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-116	0720	PL	250	1	250	Fm	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 211.6

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: BMQ-2008-13B Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 475

Casing Diameter (in): 5"

Static Water Level (ft bmp): 215.46

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: BMO-2008-13M Weather: Sunny

ADWR No: Sampler: Christopher L Shuma

WELL DATA

Well Depth (ft bls): 1030

Casing Diameter (in): 5"

Static Water Level (ft bmp): 215.46

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-5-20

Well ID: BMO-2010-1M Weather: Clear

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 550

Casing Diameter (in): 5"

Static Water Level (ft bmp): 213.19

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.66
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: BMO-2010-2M Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 380

Casing Diameter (in): 5"

Static Water Level (ft bmp): 265.12

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	01-06-20
Well ID:	BMO-2010-3B	Weather:	Clear, 50's
ADWR No:	219978	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	330
Casing Diameter (in):	5
Static Water Level (ft bmp):	122.64
Casing Volume (gal):	207 x3 = 622
Total Volume Purged (gal):	~~[illegible]~~ 702

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1229	Pump On						
1249	17	9	153	7.65	19.2	551.7	Clear water
1302	34	9	306	7.66	19.9	424.3	
1319	51	9	459	7.71	19.8	424.4	
1328	70			7.67	20.2	425.7	
1346							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-3B	1344	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	01-06-20
Well ID:	BMO-2010-3M	Weather:	clear, 40's
ADWR No:	219964	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	532
Casing Diameter (in):	5
Static Water Level (ft bmp):	124.82
Casing Volume (gal):	407.18 x3 = 1221.54
Total Volume Purged (gal):	1466

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
~~0900~~ 0915	Pump On						
0940	35	7.0	245	7.64	19.3	434.0	Water brown
1015	70	7.0	490	7.63	20.4	374.0	Water less brown
1050	105	8.0	778	7.67	21.2	371.5	Water mostly clear
1125	140	8.0	1058	7.65	20.5	372.0	Clear color
1150	165	9.00	~~1320~~ 1250	7.69	21.2	369.3	
1217							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at / near wellhead) Yes Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (Y/n)
FB BMO-2010-3M3	1103	Poly	250 mL	1	300	No	~~Y~~ N
EB BMO-2010-3M2	1108	Poly	250 mL	1	300	No	N
BMO-2010-3M1	1215	WATER LEVEL MEASUREMENT COLLECTION				* Sample DUP	

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: At 1158 I tripped on the electrical cable and the pump stopped. Fixed it back and will wait 15 min to sample.

* ~~DUP1~~ Duplicate taken DUP20200106

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-4-20

Well ID: BMO-2012-1M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shuman

WELL DATA

Well Depth (ft bls): 405

Casing Diameter (in): 5"

Static Water Level (ft bmp): 218.70

Casing Volume (gal): 190 x3 = 570

Total Volume Purged (gal): 600

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1107	Pump On						
1110	10	6	60	7.28	22.8	959	
1130	30	6	180	7.23	22.5	954	
1200	60	6	360	7.26	22.7	956	
1235	95	6	570	7.25	22.8	954	
1240	100	6	600				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2012-1M	1240	PL	250	1	300	Ice	X

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 186.3

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-8-20
Well ID:	BMO-2014-18L	Weather:	Clear, 40's
ADWR No:	917394	Sampler:	RT

WELL DATA

Well Depth (ft bls):	366
Casing Diameter (in):	5
Static Water Level (ft bmp):	127.10
Casing Volume (gal):	239 x3 = 717
Total Volume Purged (gal):	248

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1116/1144	Pump On						
1157	41	2	82	7.37	21.6	701.6	
1217	61	2	122	7.47	22.7	697.8	
1237	81	2	162	7.52	23.2	700.9	
1257	101	2	~~182~~ 202	7.52	23.9	701.7	
1320							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-18L	1319	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☑ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-8-20
Well ID:	BMO-2014-1BU	Weather:	Clear, 50's
ADWR No:	917393	Sampler:	RT

WELL DATA

Well Depth (ft bls):	273
Casing Diameter (in):	5
Static Water Level (ft bmp):	127.39'
Casing Volume (gal):	145.61 x3 = 438
Total Volume Purged (gal):	~~917393~~ 608

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0930	Pump On						
1038	8	15	120	7.45	19.0	733.9	Water brown at first
1046	~8 16	15	240	7.38	19.0	723.4	Clear water
1054	~8 24	15	360	7.38	19.7	709.8	
1100	~8 32	15	512	7.36	19.2	703.5	
1106							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at / near wellhead) Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-1BU	1106	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1·8·20
Well ID:	BMO-2014-21L	Weather:	Clear, Low 30's
ADWR No:	917452	Sampler:	RT

WELL DATA

Well Depth (ft bls):	396
Casing Diameter (in):	5
Static Water Level (ft bmp):	~~7~~ 130.43' bmp
Casing Volume (gal):	265.57 x3 = 797
Total Volume Purged (gal):	915

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	~~1.02~~
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0755	Pump On						
0809	14	15	210	7.25	16.8	1156	Clear water
0823	28	15	420	7.27	17.7	1148	
0837	42	15	630	7.37	18.1	1147	
0856							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: ~~Spigot at~~ / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-21L	~~0856~~	Poly	250mL	1	300	NP	y
	0853						

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 14 min parameters interval

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7-8-20
Well ID:	BMO-2014-2BR	Weather:	Clear, Low 90's
ADWR No:	917453	Sampler:	RT

WELL DATA

Well Depth (ft bls):	276
Casing Diameter (in):	4
Static Water Level (ft bmp):	130.35'
Casing Volume (gal):	145.65 x3 = 437
Total Volume Purged (gal):	690

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0910	Pump On						
0918	8	15	120	7.57	17.0	531.4	
0926	16	15	240	7.63	17.4	531.2	
0934	24	15	360	7.53	18.6	535.4	
0946							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-2BR	0946	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 8 minute intervals

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-9-20
Well ID:	BMO-2014-3BL	Weather:	Clear, 40's
ADWR No:	917527	Sampler:	RT

WELL DATA

Well Depth (ft bls):	~~288~~ 521
Casing Diameter (in):	5
Static Water Level (ft bmp):	142.76
Casing Volume (gal):	378.24 x3 = 1135
Total Volume Purged (gal):	1260

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
~~5~~	~~1.02~~
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1042	Pump On						
1103	21	14	294	7.64	19.3	423.1	Water slightly brown
1124	42	14	588	7.69	20.1	415.4	Clear, no odor
1145	63	14	882	7.57	20.4	414.3	
1202	80	14	1120	7.58	20.0	414.7	
1212							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-3BL	1212	Poly	250 ml	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-9-20
Well ID:	BMO-2014-3BU	Weather:	Clear 40's
ADWR No:	~~917527~~ 917494	Sampler:	RT

WELL DATA

Well Depth (ft bls):	~~521~~ 288
Casing Diameter (in):	5
Static Water Level (ft bmp):	143.84'
Casing Volume (gal):	~~377~~ 144 x3 = ~~1131~~ 432
Total Volume Purged (gal):	1232

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
~~5~~	~~1.02~~
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
~~0905~~	Pump On						
0921	16	14	~~784~~ 224	7.42	18.1	484.6	Clear water
0947	42	14	588	7.52	18.8	472.9	
1008	63	14	882	7.62	17.7	475.5	
1024	~~79~~	14	1106	7.57	17.8	471.2	
1033							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-3BU	1030	Poly	250mL	1	~~300~~	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: I got the wells mixed up, that's why the long purge.

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-7-20
Well ID:	BMO - 2014-4B	Weather:	clear, 40°
ADWR No:	917620	Sampler:	RT

WELL DATA

Well Depth (ft bls):	258
Casing Diameter (in):	5
Static Water Level (ft bmp):	137.04
Casing Volume (gal):	120.96 x3 = 363
Total Volume Purged (gal):	378

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1349	Pump On						
1356	7	14	98	7.67	18.5	493.8	
1403	7	14	196	7.62	18.3	493.5	
1410	7	14	294	7.66	18.1	492.5	
1416	27	14					Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: ~~Spigot at~~ / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO - 2014 - 4B	1416	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-7-20
Well ID:	BMO-2014-4BL	Weather:	Clear, 40's
ADWR No:	917619	Sampler:	RT

WELL DATA

Well Depth (ft bls):	261
Casing Diameter (in):	5
Static Water Level (ft bmp):	136.46' bmp
Casing Volume (gal):	125 x3 = 375
Total Volume Purged (gal):	476

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	~~1.02~~
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1307	Pump On						
1314	7	14	98	7.55	19.0	712.9	
1321	~~7~~ 14	14	196	7.58	19.0	724.8	
1328	~~7~~ 21	14	294	7.61	19.1	725.6	
1341							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-4BL	1341	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-7-20
Well ID:	BMO-2015-2B	Weather:	Clear, 40's
ADWR No:	917622	Sampler:	RT

WELL DATA

Well Depth (ft bls):	244
Casing Diameter (in):	5
Static Water Level (ft bmp):	132.91' bmp
Casing Volume (gal):	111 x3 = 333
Total Volume Purged (gal):	~~917622 gal~~ 686

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	~~1.02~~
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1110	Pump On						
1116	6	14	84	7.27	17.7	744.7	
1128	18	14	252	7.37	17.5	729.8	
1134	24	14	336	7.45	18.3	719.8	
1159							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-2B	1141	Poly	250mL	1	300.0	~~HNO3~~ NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	01-07-20
Well ID:	BMO-2015-1BL	Weather:	Clear, 40's
ADWR No:	917621	Sampler:	RT

WELL DATA

Well Depth (ft bls):	241
Casing Diameter (in):	5
Static Water Level (ft bmp):	134.18' bmp
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	See comments

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
~~5~~	~~1.02~~
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1038	Pump On						
1058		12		7.38	19.6	787.0	
1204							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: ~~Spigot at~~ / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-1BL	1141	Poly	250ml	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☑ Other: Pump wasn't working

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: Sample once well pumped

Additional Comments: Pump is turning on and off. Got sample, but not after parameters or 3 volumes

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	~~01-07~~ 01-07-20
Well ID:	BMO-2015-2B	Weather:	Clear, ~~40s~~ 30's
ADWR No:	917827	Sampler:	RT

WELL DATA

Well Depth (ft bls):	268
Casing Diameter (in):	5
Static Water Level (ft bmp):	152.82
Casing Volume (gal):	115 x3 = 345
Total Volume Purged (gal):	507

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0752	Pump On						
0759	7	13 ~~gpm~~	91	7.39	15.6	942.5	Clear, no odor
0806	7	13	182	7.42	16.4	882.8	Clear, no odor
0813	7	13	273	7.46	17.7	875.0	~~no~~ "
0820	7	13		7.45	17.4	864.6	"
0931 ~~0829~~							Pump off
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at / near wellhead) Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-2B	0829	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	01-07-2020
Well ID:	BMO-2015-2BL	Weather:	Clear, 30's
ADWR No:	917828	Sampler:	RT

WELL DATA

Well Depth (ft bls):	272
Casing Diameter (in):	5
Static Water Level (ft bmp):	151.49
Casing Volume (gal):	120.51 x3 = 362
Total Volume Purged (gal):	196

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0850	Pump On						
0857	7	14	98	7.33	16.5	943.4	clear water
0904	7	14	196	7.34	18.5	930.2	Clear water
0913	7	14	294	7.14	17.1	918.0	Clear
0918							Pump Off
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-2BL	0916	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-14-20

Well ID: BANKS 987 | Weather: Overcast, Windy 50's

ADWR No: 647987 | Sampler: RTinnell

WELL DATA

Well Depth (ft bls): 339

Casing Diameter (in): 6

Static Water Level (ft bmp): 237.42

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments: 520 < 338-5648

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-19-20
Well ID:	COB MW-1B	Weather:	Clear, 50's
ADWR No:	225906	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	700
Casing Diameter (in):	6
Static Water Level (ft bmp):	240.27 from 7/19/17
Casing Volume (gal):	382 x3 = 1146
Total Volume Purged (gal):	1445

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1025	Pump On						
1040	15	17	255	7.13	20.4	1351	Clear, No odor
1055	30	17	510	6.96	20.5	1595	
1110	45	17	765	6.89	20.3	1708	NWC noticed high levels
1125	60	17	1020	6.87	20.4	1748	
1140	75	17	1275	6.76	20.2	1726	
1150	85	17	1445				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB MW-1B	1146	Poly	250mL	1	300	NP	Y
N/A	—	—	—	—	—	—	—

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☑ Other: Used WL from 07-19-17

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☑ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-14-20
Well ID:	COB MW-3	Weather:	Clear, 40's
ADWR No:	906823	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	4
Static Water Level (ft bmp):	123.27
Casing Volume (gal):	114.87 x3 = ~~344.345~~ 345
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
(4)	(0.65)
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0850	Pump On						
0859	9	19		6.88	18.3	511.2	Cloudy brown. No odor
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	WLO						
C							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-14-20
Well ID:	COB MW-2	Weather:	
ADWR No:	903984	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	162
Casing Diameter (in):	4
Static Water Level (ft bmp):	133.82
Casing Volume (gal):	18.317 x3 = 55
Total Volume Purged (gal):	140

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0940	Pump On						
0945	5	7	35	7.58	18.1	573.1	Clear, no odor
0948	8	7	56	7.56	18.2	569.8	
0951	11	7	77	7.53	18.7	578.3	
1000	20	7	140				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Hand Sample

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB MW-2	1000	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-7-20
Well ID:	COB WL	Weather:	Clear, 50's
ADWR No:	593118	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	150
Casing Diameter (in):	4
Static Water Level (ft bmp):	93.72' bmp
Casing Volume (gal):	52.28 x3 = 168
Total Volume Purged (gal):	172

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
(4)	~~0.65~~
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1522	Pump On						
1530	8	7	56	7.08	19.7	1129	
1556	34	1	82	7.18	20.3	1123	
1622	60	1	108	7.27	20.4	1128	
1652	90	1	138	7.26	20.4	1124	
1722	120	1	168	7.21	20.5	1122	
1726							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Hand sample

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB WL	1726	Poly	250mL	1	300.00	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Since gpm dropped I changed the parameter intervals. ~~to every 7-8 minutes~~ my PVC pipe for hand sample.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-21-20

Well ID: COOPER | Weather: 50s, Rain

ADWR No: 623564 | Sampler: JA

WELL DATA

Well Depth (ft bls): 325

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal): 188

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:15	Pump On						
11:20	5	4	20	7.04	20.3	419.7	
11:30	15	4	60	7.09	21.0	418.1	
11:45	30	4	120	7.09	21.3	419.9	
12:00	45	4	180	7.08	21.2	418.9	
12:02							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COOPER	12:02	Poly	250mL	1	300.0	NP	Y
DUP20200121	12:02	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead - unable to remove access port without damage - plastic, frozen, glued in
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-15-20

Well ID: DODSON | Weather: Cloudy, 50's

ADWR No: 644927 | Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 6

Static Water Level (ft bmp): 101.82

Casing Volume (gal): 144.32 x3 = 433

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1234	Pump On						
1245	11	15	165	7.41	19.0	2315	Slightly cloudy
1254	20	15	300	7.43	18.9	2324	No odor, cloudy water
1303	29	15	435	7.27	19.1	2275	
1316	42						Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
DODSON	1316	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-21-20

Well ID: ECHAVE Weather: 50s, overcast

ADWR No: 219449 Sampler: JH

WELL DATA

Well Depth (ft bls): 345

Casing Diameter (in): 6

Static Water Level (ft bmp): 221.16

Casing Volume (gal): x3 =

Total Volume Purged (gal): NA

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		W	L	O			
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-27-20
Well ID:	GARNER 557	Weather:	N/A
ADWR No:	558557	Sampler:	RT

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	6
Static Water Level (ft bmp):	N/A
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		N/A					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		N/A					

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☑ Other: GARNER had an emergency.

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: GARNER had an emergency

Additional Comments: GARNER had a family emergency and wasn't available to have a person on-site.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-27-20

Well ID: GARNER 635 Weather: NA

ADWR No: 587635 Sampler: R.T.

WELL DATA

Well Depth (ft bls): 680

Casing Diameter (in): 5

Static Water Level (ft bmp):

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			N/A				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		N/A					

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☑ Other: ~~Custo~~ by GARNER had an emergency

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: GARNER had an emergency.

Additional Comments: GARNER was frustrated/anxious because she said ~~stuff~~ she was out of town for a family emergency. No personel could go on-site. We need to either reschedule or negotiate land access.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-21-20

Well ID: GOAR RANCH Weather: 50s, lt Rain

ADWR No: 610695 Sampler: JH

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 7

Static Water Level (ft bmp): 195.19

Casing Volume (gal): x3 =

Total Volume Purged (gal): NA

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL0						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WL0							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WL0

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: Holban Weather: Sunny

ADWR No: Sampler: Christopher L Sloan

WELL DATA

Well Depth (ft bls): 300

Casing Diameter (in): 5"

Static Water Level (ft bmp): 174.29

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-17-20

Well ID: HOWARD-NR | Weather: Clear, 50s

ADWR No: NR | Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): 160.96 ~ 6 bmp

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WLO					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	WLO						

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments: HOWARD-NR Wants key left the same way as found.

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-17-20

Well ID: KEEFER Weather: Clear, 40's

ADWR No: 209744 Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 245

Casing Diameter (in): 6

Static Water Level (ft bmp): 144.79

Casing Volume (gal): 147.31 x3 = 442

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1032	Pump On						
1044	12	12	144	7.29	18.5	473.6	
1056	24	12	288	7.41	17.8	474.3	
1108	36	12	432	7.56	18.0	486.5	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
KEEFER	1116	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-27-20

Well ID: LADD-251 Weather: Sunny

ADWR No: Sampler: Christopher L Slaymon

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 225.45

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-27-20

Well ID: LADD-435 Weather: Sunny

ADWR No: Sampler: Christopher L Skinner

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 252.73

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Sink only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-27-20

Well ID: LAOD-538 Weather: Sunny

ADWR No: Sampler: Christopher L Storms

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 215.26

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.66
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-27-20

Well ID: LADD-635 Weather: Sunny

ADWR No: Sampler: Christopher L Sturm

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 173.85

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-27-20

Well ID: LADD - 837 Weather: Sunny

ADWR No: Sampler: Christopher L. Shumway

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 304.30

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-27-20

Well ID: LADD- 977 Weather: Sunny

ADWR No: Sampler: Christopher L Slumma

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 87.47

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-16-20

Well ID: MCCONNELL | Weather: Cloudy, 50's

ADWR No: 539265 | Sampler: RT

WELL DATA

Well Depth (ft bls): 216

Casing Diameter (in): 6

Static Water Level (ft bmp): 167.28' bmp

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments: Pump not working

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-15-20

Well ID: METZLER | Weather: Cloudy, 40's

ADWR No: N/A | Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 351

Casing Diameter (in): 6

Static Water Level (ft bmp): 295.76' bmp

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-30-20

Well ID: NSD-02 | Weather: Clear, 40's

ADWR No: 527587 | Sampler: RT

WELL DATA

Well Depth (ft bls): 120

Casing Diameter (in): 12

Static Water Level (ft bmp): ~~109.75~~ 105.28'

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

WLO

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-30-20

Well ID: NSD-B3 | Weather: Clear 40's

ADWR No: 527586 | Sampler: R.T.

WELL DATA

Well Depth (ft bls): 100'

Casing Diameter (in): 12"

Static Water Level (ft bmp): 90.87' bmp

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WLB					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	WLB						

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLB

Additional Comments:

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-16-20
Well ID:	NWC-02	Weather:	Drizzle, 50's
ADWR No:	502944	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	312
Casing Diameter (in):	6
Static Water Level (ft bmp):	171.98' bmp
Casing Volume (gal):	205.83 x3 = 617
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1115	Pump On						
1120	5	95	475	7.57	20.6	432.5	
1122	7	95	665	7.55	20.0	429.8	
1123	8	95	760	7.55	20.5	430.6	
1134							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-02	1134	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-16-20

Well ID: NWC-03-CAP | Weather: ~~Clear~~ Drizzle, 50's

ADWR No: | Sampler: RT

WELL DATA

Well Depth (ft bls): 179

Casing Diameter (in):

Static Water Level (ft bmp): IWC

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☑ Other: Tape went past well depth

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments: The tape went well past 179. Maybe the well is dry or the depth is incorrect.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-16-20
Well ID:	NWC-~~06~~ 04	Weather:	Drizzle, 50's
ADWR No:	~~575 702~~ 55 951849	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	~~340~~ m
Casing Diameter (in):	~~8~~ m 10
Static Water Level (ft bmp):	~~165.25~~ m
Casing Volume (gal):	~~456~~ m x3 = ~~1368~~ m
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
~~8~~	~~2.61~~
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
~~0823~~	Pump On						
0828	5	* 8		6.92	22.1	871.5	
0832	10	8		7.64	22.6	864.6	
0837	15	8		7.65	22.9	864.4	
0832	20	8		7.59	23.3	863.1	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
~~MW~~ NWC-06	0852	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☑ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☑ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: * Well not used any more. Gpm not known

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-16-20
Well ID:	NWC-06	Weather:	On-off rain, 50's
ADWR No:	575 ~~706~~	Sampler:	R Tinnell

WELL DATA

Well Depth (ft bls):	340
Casing Diameter (in):	8
Static Water Level (ft bmp):	165.12' bmp
Casing Volume (gal):	456.43 x3 = 1369
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
~~8~~	~~2.61~~
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1030	Pump On						
1035 ~~1035~~	5	141	705	7.65	19.4	402.5	
1037	7	141	987	7.55	20.1	403.9	
1039	9	141	1269	7.51	20.8	403.5	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-06	1048	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-17-20

Well ID: OLMOS (3545 Wilson Rd) Weather: Clear, 40's

ADWR No: 224745 Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 306

Casing Diameter (in): 6

Static Water Level (ft bmp): ~~224~~ 151.52' bmp

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WLO					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	WLO						

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-14-20
Well ID:	PANAGAKOS	Weather:	Clear, 50's
ADWR No:	35-76-4B	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	~~200~~
Casing Diameter (in):	8
Static Water Level (ft bmp):	166.69 ft
Casing Volume (gal):	86.94 x3 = 261
Total Volume Purged (gal):	343

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
(8)	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1246	Pump On						
1259	13	7	91	6.94	17.6	1435	Clear No odor
1309	23	7	161	7.49	17.8	1429	NM
1319	33	7	231	7.29	17.7	1450	NM
1335	49	7	343				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PANAGAKOS	1332	Poly	250mL	1	~~300~~	NP	Y
DUP 20200140 1	1332	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Spigot by well head is < 1 gpm

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-8-20
Well ID:	Pionke 395	Weather:	Overcast, 50's
ADWR No:	613395	Sampler:	RT

WELL DATA

Well Depth (ft bls):	330
Casing Diameter (in):	8
Static Water Level (ft bmp):	159.43'
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (ºC)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

WLO

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	WLO						

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO ; Pump non-functional

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: ~~01-15-19~~ 01-15-20

Well ID: POWER 639 | Weather: Cloudy 40's

ADWR No: 222639 | Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 480

Casing Diameter (in): 6

Static Water Level (ft bmp): 296.68' bmp

Casing Volume (gal): 269.48 gal x3 = 808 gal

Total Volume Purged (gal): 200

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1048 ~~0958~~	Pump On						
1104	16	8	128	6.98	20.2	764.2	N/A
1105	17	8	136	7.32	20.5	747.0	
1106	18	8	144	7.41	20.6	746.1	
1107	19	8	152	7.47	20.5	748.9	
1113	25	8	~~200~~				Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
POWER639	1116	Poly	250mL	1	300	NP	Y
FB20200115	1200	Poly	250mL	1	300	NP	N/A
EB20200115	~~1200~~	"	"	"	"	"	"

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☑ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: ~~FB200~~ FB 2020 0115 & EB 20200115 done at 1100. Water leak on pressure tank.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-13-20
Well ID:	RAMIREZ	Weather:	Clear, Mid-50's
ADWR No:	216425	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	6
Static Water Level (ft bmp):	269.12' bmp
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	N/A

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		W L O					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	W L O						

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: W L O

Additional Comments: Dirt covered the tape.

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-22-20
Well ID:	ROGERS 596	Weather:	Pr. Cloudy, 60s
ADWR No:	573596	Sampler:	JA

WELL DATA

Well Depth (ft bls):	290
Casing Diameter (in):	6
Static Water Level (ft bmp):	143.75
Casing Volume (gal):	214 x3 = 645
Total Volume Purged (gal):	714

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:35	Pump On						
11:55	20	7	140	6.78	18.4	1687	lt. brown color
12:15	40	7	280	6.71	18.8	1669	Clear
12:35	60	7	420	6.71	19.1	1642	↓
12:55	80	7	560	6.68	19.1	1642	
13:15	100	7	700	6.68	19.4	1621	
~~13~~							
1317							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ROGERS 596	1317	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-22-20
Well ID:	ROGERS 803	Weather:	Pt. cloudy, 60s
ADWR No:	641803	Sampler:	JA

WELL DATA

Well Depth (ft bls):	140 (reported)
Casing Diameter (in):	6
Static Water Level (ft bmp):	140.60
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	NA

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Inoperable						
		Pump					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Inoperable							
Pump							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: Inoperable pump

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 1-21-20

Well ID: ROGERS E Weather: 50s Rainy

ADWR No: 216018 Sampler: JA

WELL DATA

Well Depth (ft bls):	285
Casing Diameter (in):	6
Static Water Level (ft bmp):	159.76
Casing Volume (gal):	184 x3 = 552
Total Volume Purged (gal):	744

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
09:45	Pump On						
10:00	15	12	180	6.47	21.0	431.3	
10:15	30	12	360	6.76	21.1	431.6	
10:30	45	12	540	6.76	21.1	431.4	
10:45	60	12	720	6.77	21.1	432.8	
10:47							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ROGERS E	10:47	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-16-20
Well ID:	RUIZ	Weather:	Cloudy, Rain on the horizon
ADWR No:	531770	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	312
Casing Diameter (in):	6
Static Water Level (ft bmp):	* 302.08
Casing Volume (gal):	15 x3 = 45
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1340	Pump On						
1349	9	6	54	6.75	19.5	816.0	
1350	10	6	60	7.02	19.6	811.1	
1351	11	6	66	7.19	19.6	810.3	
1352	12	6	72	7.20	19.6	809.9	
1358	19	6.1 gpm					Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RUIZ	1358	Poly	250mL	1	300	NP	Y
N/A	—	—	—	—	—	—	—

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [x] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Couldn't get a WL. Tape may have been snagging around 240'. I tried multiple times and couldn't get a WL.
* WLO - SWL taken from previous quarter.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-22-20

Well ID: SCHWARTZ | Weather: Pt. Cloudy, 60s

ADWR No: 210865 | Sampler: JH

WELL DATA

Well Depth (ft bls): 305

Casing Diameter (in): 6

Static Water Level (ft bmp): 132.54

Casing Volume (gal): 254 x3 = 761

Total Volume Purged (gal): 804

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1342	Pump On						
1357	15	12	180	6.47	21.1	672.0	
1412	30	12	360	6.94	21.0	699.4	
1427	45	12	540	6.88	21.0	711.8	
1442	60	12	720	6.85	21.0	718.8	
1447	65	12	780	6.86	21.0	721.7	
1449							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
SCHWARTZ	14:49	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	01-14-20
Well ID:	STEPHENS	Weather:	Overcast, Windy 50's
ADWR No:	809560	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	N/A
Casing Diameter (in):	N/A
Static Water Level (ft bmp):	54.02 ft bmp
Casing Volume (gal):	N/A x3 =
Total Volume Purged (gal):	N/A

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO only

Additional Comments: Twist plate and drop into borehole. No sandy tubes

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-15-20
Well ID:	THOMPSON - ~~344~~ 151	Weather:	Cloudy, High 60's
ADWR No:	~~218341 nur~~ 612151	Sampler:	R. Tinnell

WELL DATA

Well Depth (ft bls):	~~285 nur~~
Casing Diameter (in):	7
Static Water Level (ft bmp):	
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

TWL

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		TWL					

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☑ Other: Sounder was snagging and getting hung up.

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: TWL

Additional Comments: Could not get a reading. Scaling causing tape to knot up and get snagged on the way out.

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-15-20
Well ID:	THOMPSON - ~~I67~~ 341	Weather:	Cloudy / High 60's
ADWR No:	~~G1215~~ 218341	Sampler:	RTinnell

WELL DATA

Well Depth (ft bls):	285
Casing Diameter (in):	7
Static Water Level (ft bmp):	170.62' bmp
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
		WLO					

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments:

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: TM-2A Weather: Sunny

ADWR No: Sampler: Christopher L Shreeve

WELL DATA

Well Depth (ft bls): 925

Casing Diameter (in): 4"

Static Water Level (ft bmp): 338.42

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: TM-6 Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 4"

Static Water Level (ft bmp): 163.15

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-10-20

Well ID: TM-7 Weather: Sunny

ADWR No: Sampler: Christopher L Slavens

WELL DATA

Well Depth (ft bls):	350
Casing Diameter (in):	4"
Static Water Level (ft bmp):	NA
Casing Volume (gal):	NA x3 =
Total Volume Purged (gal):	NA

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0930	Pump On						
0932	2	10	20	7.52	20.6	615	
0942	–	–					
0944	4	10	40	7.61	20.7	612	
0954	–	–					
0956	6	10	60	7.60	20.6	616	
1004	–	–					
1006	8	10	80	7.61	20.8	614	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-7	1006	PL	250	1	300	Ice	yes

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other:

Additional Comments: Sample Collected per Clear Creek method

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	~~1-6-19~~ 1-6-20
Well ID:	TM-10 USBP	Weather:	Clear, 50's
ADWR No:	522696	Sampler:	RT

WELL DATA

Well Depth (ft bls):	290
Casing Diameter (in):	4
Static Water Level (ft bmp):	239.32
Casing Volume (gal):	50.68 x3 = 152
Total Volume Purged (gal):	200

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
(4)	(0.65)
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1418	Pump On						
1423	5	8	40	7.79	20.5	373.4	Clear Water
1428	10	8	80	7.75	19.7	373.7	Clear Water
1433	15	8	120	7.78	20.1	376.0	Clear Water
1438	20	8	160	—	—	—	Clear Water
1443	25	8	200	—	—	—	Pump off
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-10 USBP	1441	Poly	250mL	1	300.00	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: stabilized after 3 readings

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: TM-16 Weather: Sunny

ADWR No: Sampler: Christopher L Slavens

WELL DATA

Well Depth (ft bls): 115

Casing Diameter (in): 4"

Static Water Level (ft bmp): 58.16

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAN

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 2-20-20

Well ID: TM-42 Weather: Sunny

ADWR No: Sampler: Christopher L Slaymon

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 5"

Static Water Level (ft bmp): 222.15

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-21-20
Well ID:	TVI-236	Weather:	50s, overcast
ADWR No:	802236	Sampler:	JA

WELL DATA

Well Depth (ft bls):	222
Casing Diameter (in):	12
Static Water Level (ft bmp):	130.92
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	NA

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		Inoperable					
		pump					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Inoperable pump							

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Inoperable Pump

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 3-23-20

Well ID: TVI-713 Weather: Mostly Clear

ADWR No: 567713 Sampler: RT

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 8

Static Water Level (ft bmp): 135.43 ft bmp

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-22-20

Well ID: WEED | Weather: Pt. cldy, 60s

ADWR No: 544535 | Sampler: JA

WELL DATA

Well Depth (ft bls): 320

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal): 72

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1505	Pump On						
1507	2	6*		7.23	20.4	385.7	
1509	4	6		7.14	20.8	385.5	
1512	7	6	42	7.10	20.8	387.1	
1517							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WEED	15:15	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☑ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 6 gpm at spigot at well head, ~8 gpm also there to charge tank

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	1-16-20
Well ID:	WEISKOPF	Weather:	Overcast
ADWR No:	641802	Sampler:	R.T.

WELL DATA

Well Depth (ft bls):	200
Casing Diameter (in):	6
Static Water Level (ft bmp):	154.08' bmp
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
			WLO				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	WLO						

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments:

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 1-17-20

Well ID: ZANDER | Weather: Clear, 40's

ADWR No: 205 126 | Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 280

Casing Diameter (in): 6

Static Water Level (ft bmp): 154.93

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WLO					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
	WLO						

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☑ Other: WLO

Additional Comments:

Date	State well (837)	Ladd House (538)	Old house well (977)	Middle #2 (251)	Stevenson Windmill (435)	WSS-2015-01 (635)	
6/24/2011	262.51	288	84				
9/29/2011	262.28	276.58	83.62				
12/16/2011	264.32	250.68	84.8				
2/15/2012	262.24	253.8	84.67				
6/11/2012	264.04	258.9	85.7				
9/26/2012	261.75	255.76	84.96				
12/19/2012	261.94	249.43	86.27				
3/22/2013	324.62	250.51	85.18				Pump running
3/27/2013	266.68						
6/14/2013	261.51	282.3	86.54				Pump running
6/27/2013		270			250.85		
9/24/2013	261.38	250.8	82.66	219.6	250.85 (9-25-13)		
12/3-4/2013	260.85	251.36	84.48	217.44	250.79		
2/25/2014	261.04	253.36	85.27	217.59	250.75		
6/4/2014	262.53	259.63	85.88	218.27	250.93		
9/10/2014	263.68	248.34	86.15	219.04	250.97		
11/20/2014	261.18	268.66	80.95	213.58	250.66		
3/24/2015	261.44	248.46	83.73	214.18	250.25		
9/17/2015	264.32	243.05	86.44	216.39	250.17		
12/16/2015			86.81				
3/24/2016	261.79	266.62	87.22	217.85	250.17	169.56 (3-31-16)	
9/28/2016	262.8	246.14	86.11	219.8	250.21	170.21	
11/22/2016						170.9	
3/20/2017	261.3	232.53	86.55	220.91	250.55	184.94	Pump running
8/10/2017	262	227.4	87.9	222.12	250.94		
8/24/2017						172.09	
12/19/2017						172.11	
3/8/2018	283.21	222.4	87.92	222.94	251.3	172.22	
8/22/2018	281.46	219.9	88.92	223.64	251.57	173.07	Pump running
2/14/2019	341.04	217.8	87.5	224.29	251.93	173.2	Pump running
9/9/2019	295.4	216.22	89.27	225.05	252.42	174.03	
2/27/2020	304.3	215.26	87.47	225.45	252.73	173.85	

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 5-11-20

Well ID: NWC-04 | Weather: Partly Cloudy, 95°F

ADWR No: 551849 | Sampler: R. Tinnell

WELL DATA

Well Depth (ft bls): 462

Casing Diameter (in): 10

Static Water Level (ft bmp):

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1000	Pump On						
1005	5	5		7.47	24.7	865.2	
1010	10	5		7.48	24.1	860.6	
1015	15	5		7.50	24.7	860.6	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-04	1025	Poly	250mL	1	300	NP	Y
20201105 DUP	1024	Poly	250mL	1	300	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☒ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Collected sample to be checked later.

Additional Comments: GPM is 5 per Eric with NWC. Well not in use

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/22/20

Well ID: ANDERSON 396 Weather: mostly cloudy, 90s

ADWR No: 613396 Sampler: JH

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 8

Static Water Level (ft bmp): 156.05

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other: WLO

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/20

Well ID: ANDERSON 458 | Weather: mostly cloudy, 90s

ADWR No: 221458 | Sampler: JA

WELL DATA

Well Depth (ft bls): 734

Casing Diameter (in): 5

Static Water Level (ft bmp): 178.36

Casing Volume (gal): 567 x3 = 1,701

Total Volume Purged (gal): 1,760

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1305	Pump On						
1335	30	10	300	8.02	24.5	399.9	Lightning shutdown
1405	60	10	600	8.00	24.7	399.1	
1435	90	10	900	7.99	24.5	397.2	
1505	120	10	1200	8.02	24.5	395.4	
1535	150	10	1,500	8.01	24.6	394.7	
1600	175	10	1,750	8.01	24.6	394.6	
1601							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ANDERSON 458	1601	PVC	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	9/3/20
Well ID:	AVC-02	Weather:	mostly sunny 90s
ADWR No:	616586	Sampler:	TH

WELL DATA

Well Depth (ft bls):	333
Casing Diameter (in):	20
Static Water Level (ft bmp):	128.44 * 178.00 * using AVC's sounder
Casing Volume (gal):	3,344 x3 = 10,031
Total Volume Purged (gal):	11,070

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11 25	Pump On						
11 45	20	78	1,560	7.28	21.0	523.1	
12 05	40	78	3,120	7.29	21.0	526.5	
12 25	60	78	4,680	7.29	21.0	524.1	
12 45	80	78	6,240	7.29	20.9	520.7	
13 05	100	78	7,800	7.29	21.0	520.6	
13 25	120	78	9,360	7.28	21.1	521.7	
13 45	140	78	10,920	7.29	21.0	519.3	
13 47							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AVC-02	13:47	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected. - using AVC's sounder, then TH's sounder after AVC-04 on ~30min
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Filtered sample. AVC sounder used for initial measurement. TH sounder retrieved after battery replaced. Other AVC wells on about 1.5 hrs, AVC-04 on ~30min

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/3/20
Well ID:	AWC-03	Weather:	Pt. Cloudy, 90s
ADWR No:	616585	Sampler:	JH

WELL DATA

Well Depth (ft bls):	270
Casing Diameter (in):	16
Static Water Level (ft bmp):	129.00 * using AWC's
Casing Volume (gal):	1472 x3 = 4,416
Total Volume Purged (gal):	7,200

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
(16)	(10.44)
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1026	Pump On						
1028	2	800	1,600	7.86	21.0	524.5	
1030	4	800	3,200	7.38	20.8	517.1	
1032	6	800	4,800	7.38	20.8	512.7	
1035							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-03	1035	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected. - using AWC's sample -
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/3/20
Well ID:	AWC-04	Weather:	pt. cld., 90s
ADWR No:	616584	Sampler:	JH

WELL DATA

Well Depth (ft bls):	337
Casing Diameter (in):	16
Static Water Level (ft bmp):	119.42
Casing Volume (gal):	2,272 x3 = 6,815
Total Volume Purged (gal):	11,360

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
~~16~~	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:50	Pump On						
10:55	5	710	3,550	7.01	20.0	730.0	
11:00	10	710	7,100	7.00	20.0	730.0	
11:05	15	710	10,650	6.99	20.0	731.5	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-04	11:06	Poly	250mL	1	300.0	NP	N

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/3/20
Well ID:	AWC-05	Weather:	pt cloudy, 80s
ADWR No:	590620	Sampler:	JA

WELL DATA

Well Depth (ft bls):	1183
Casing Diameter (in):	16
Static Water Level (ft bmp):	156.45
Casing Volume (gal):	10,717 x3 = 32,152
Total Volume Purged (gal):	34,650

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0911	Pump On						
0926	15	630	9,450	7.12	20.8	460.5	
0941	30	630	18,900	7.44	21.1	451.8	
0956	45	630	28,350	7.45	21.4	448.3	
1005	54	630	34,020	7.41	21.6	446.9	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
AWC-05	10:06	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Mw-2 drilled synoptic

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/13/20
Well ID:	BANKS 986	Weather:	cloudy, 100s
ADWR No:	647986	Sampler:	JA

WELL DATA

Well Depth (ft bls):	435
Casing Diameter (in):	6
Static Water Level (ft bmp):	IWL [use WL from BANKS 987: 237.29]
Casing Volume (gal):	291 x3 = 873
Total Volume Purged (gal):	930

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1305	Pump On						
1325	20	10	200	7.33	21.8	1038	
1345	40	10	400	7.34	21.8	967.5	
1405	60	10	600	7.35	22.0	938.4	
1425	80	10	800	7.34	21.9	927.7	
1435	90	10	900	7.34	21.8	931.5	
1438							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BANKS 986	1435	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: Used WL from BANKS 987 on same property

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/13/20

Well ID: BANKS 987 Weather: clear, 100s

ADWR No: 647987 Sampler: JA

WELL DATA

Well Depth (ft bls): 339

Casing Diameter (in): 6

Static Water Level (ft bmp): 237.29

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WL	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BANKS 987							
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/20/20

Well ID: BARTON 919 Weather: pt cloudy, hot

ADWR No: 644919 Sampler: JA

WELL DATA

Well Depth (ft bls): 130

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	IWL	L	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments: Obstruction at ~39 ft btoc

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-12-20

Well ID: BMO-2008-16 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Dickerson

WELL DATA

Well Depth (ft bls): 310

Casing Diameter (in): 5"

Static Water Level (ft bmp): 76.38

Casing Volume (gal): 238.3 x3 = 715

Total Volume Purged (gal): 746

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0830	Pump On						
0900	30	8.3	249	7.25	22.3	897	
0920	50	8.3	415	7.28	22.2	894	
0940	70	8.3	581	7.27	22.2	896	
1000	90	8.3	747	7.26	22.1	897	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-16	1000	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 233.7

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-12-20

Well ID: BMO-2008-3B Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shuma

WELL DATA

Well Depth (ft bls):	260
Casing Diameter (in):	5"
Static Water Level (ft bmp):	150.17
Casing Volume (gal):	112 x3 = 336
Total Volume Purged (gal):	540

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0610	10	27	135	7.38	21.6	647	
0615	15	27	405	7.40	21.5	648	
0620	20	27	540	7.39	21.6	647	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-3B	0620	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters etabilized.
- ☐ Other:

Additional Comments: 1099

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/11/20
Well ID:	BMO-2008-4B	Weather:	Pt. Cloudy, 90s
ADWR No:	910096	Sampler:	SH

WELL DATA

Well Depth (ft bls):	610
Casing Diameter (in):	5
Static Water Level (ft bmp):	140.89
Casing Volume (gal):	479 x3 = 1,437
Total Volume Purged (gal):	1,582

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1240	Pump On						
1310	30	14*	420	7.54	23.7	373.2	
1340	60	14	840	7.53	23.3	372.5	
1410	90	14	1260	7.50	23.4	372.9	
1430	110	14	1,540	7.50	23.5	372.9	
1433							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-4B	1433	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: * 8 gpm from hose spigot, but at least 6 gpm pumping up through ground from apparent broken PVC in-ground along driveway (road (former orchard piping for irrigation)

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-11-20

Well ID: BMO-2008-5B Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 285

Casing Diameter (in): 5"

Static Water Level (ft bmp): 154.37

Casing Volume (gal): 133.3 x3 = 400

Total Volume Purged (gal): 675

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0715	Pump On						
0720	5	27	135	7.10	23.0	787	
0730	15	27	405	7.06	22.9	786	
0740	25	27	675	7.07	23.0	785	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-5B	0740	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

☒ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☒ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: 131.7

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-11-20

Well ID: BMO-2008-5M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 450

Casing Diameter (in): 5"

Static Water Level (ft bmp): 155.85

Casing Volume (gal): 300 x3 = 900

Total Volume Purged (gal): 990

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0625	25	18	450	7.21	22.8	667	
0645	45	18	810	7.24	22.7	669	
0655	55	18	990	7.23	22.8	668	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-5M	0655	PL	25	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 294.1

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-22-20

Well ID: BMO-2008-6B Weather: Cloudy

ADWR No: Sampler: Christopher L Sharma

WELL DATA

Well Depth (ft bls): 265

Casing Diameter (in): 5.4

Static Water Level (ft bmp): 199.04

Casing Volume (gal): 67.3 x3 = 202

Total Volume Purged (gal): 225

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0650	Pump On						
0705	15	5.1	75	7.10	21.9	260	
0720	30	5.1	150	7.15	22.0	258	
0735	45	5.1	225	7.12	21.9	258	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-6B	0735	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: L6

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-22-20

Well ID: BMO-2008-6M Weather: Cloudy

ADWR No: Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls):	450
Casing Diameter (in):	5"
Static Water Level (ft bmp):	200.02
Casing Volume (gal):	255 x3 = 765
Total Volume Purged (gal):	840

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0610	10	21	210	7.23	22.1	750	
0620	20	21	420	7.21	22.0	757	
0630	30	21	630	7.21	22.0	752	
0640	40	21	840	7.22	22.1	752	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-6M	0640	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 250

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-23-20

Well ID: BMO-2008-7M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Skinner

WELL DATA

Well Depth (ft bls):	670
Casing Diameter (in):	5"
Static Water Level (ft bmp):	247.68
Casing Volume (gal):	430.8 x3 = 1,292
Total Volume Purged (gal):	1365

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0800	Pump On						
0825	25	21	525	7.59	22.9	484	
0845	45	21	945	7.60	23.0	485	
0905	65	21	1365	7.64	23.0	483	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-7M	0905	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☒ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters etabilized.
- ☐ Other:

Additional Comments: 422.4

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-23-20

Well ID: BMO-2008-8B Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 480

Casing Diameter (in): 5"

Static Water Level (ft bmp): 304.74

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-23-20

Well ID: BMO-2008-8M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Stevens

WELL DATA

Well Depth (ft bls):	1210
Casing Diameter (in):	5"
Static Water Level (ft bmp):	305.42
Casing Volume (gal):	922.6 x3 = 2,768
Total Volume Purged (gal):	2816

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0500	Pump On						
0600	60	17.6	1056	7.47	24.7	547	
0700	120	17.6	2112	7.45	24.8	547	
0730	150	17.6	2640	7.46	24.7	546	
0740	160	17.6	2816	7.48	24.8	547	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-8M	0740	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 9.41

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7.20.20

Well ID: BMO 2008-9M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Slavens

WELL DATA

Well Depth (ft bls): 725

Casing Diameter (in): 5"

Static Water Level (ft bmp): 288.57

Casing Volume (gal): 496.1 x3 = 1488

Total Volume Purged (gal): 1504

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0720	20	18.8	376	7.63	24.7	599	
0740	40	18.8	752	7.68	24.6	601	
0800	60	18.8	1128	7.69	24.6	602	
0820	80	18.8	1504	7.68	24.7	602	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-9M	0820	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 486.4

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-20-20

Well ID: BMO-2008-106L Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shumway

WELL DATA

Well Depth (ft bls): 810

Casing Diameter (in): 5"

Static Water Level (ft bmp): 298.10

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-20-20

Well ID: BMO-2008-106U Weather: Partly Cloudy

ADWR No: Sampler:

WELL DATA

Well Depth (ft bls): 449

Casing Diameter (in): 5"

Static Water Level (ft bmp): 196.63

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-13-20

Well ID: BMO-2008-116 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Stavros

WELL DATA

Well Depth (ft bls):	760
Casing Diameter (in):	5"
Static Water Level (ft bmp):	546.77
Casing Volume (gal):	217.5 x3 = 653
Total Volume Purged (gal):	720

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0600	Pump On						
0610	10	8	80	7.88	25.2	340	
0620	20	8	240	7.91	25.4	339	
0700	60	8	480	7.94	25.4	341	
0730	90	8	720	7.92	25.3	340	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2008-116	0730	PL	250	1	300	Ice	Y
Dup-081320	0730	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☑ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☑ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 213.3

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-5-20

Well ID: BMO-2008-13B Weather: Partly Cloudy

ADWR No: Sampler: Christopher V Sherman

WELL DATA

Well Depth (ft bls):	475
Casing Diameter (in):	5"
Static Water Level (ft bmp):	215.70
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-5-20

Well ID: BMO-2008-13M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls):	1030
Casing Diameter (in):	5"
Static Water Level (ft bmp):	215.73
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-20-20

Well ID: BMO-2010-1M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Skinner

WELL DATA

Well Depth (ft bls):	550
Casing Diameter (in):	5"
Static Water Level (ft bmp):	211.73
Casing Volume (gal):	345 x3 = 1035
Total Volume Purged (gal):	1065

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0900	Pump On						
0915	15	10	150	7.61	24.9	722	
1000	60	5	375	7.70	23.9	774	
1100	120	3	555	7.73	24.2	771	
1200	180	3	735	7.75	24.0	772	
1300	240	3	915	7.76	24.1	770	
1350	290	3	1065	7.75	24.0	771	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-1M	1350	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

☒ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☒ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: 338.2

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-21-20

Well ID: BMa-2010-2M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 380

Casing Diameter (in): 5"

Static Water Level (ft bmp): 262.38

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/4/20

Well ID: BMO-2010-3B Weather: mostly, clear, hot

ADWR No: 219970 Sampler: JA

WELL DATA

Well Depth (ft bls): 330

Casing Diameter (in): 5

Static Water Level (ft bmp): 123.25

Casing Volume (gal): ~~204~~ 211 x3 = ~~633~~ 633

Total Volume Purged (gal): 696

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0852	Pump On						
0912	20	8	160	7.37	21.3	429.1	
0932	40	8	320	7.51	21.3	426.6	
0952	60	8	480	7.53	21.3	425.5	
1012	80	8	640	7.45	21.4	427.1	
1019							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-3B	1015	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/4/20
Well ID:	BMO-2010-3M	Weather:	Mostly clear, 90s
ADWR No:	219469	Sampler:	JA

WELL DATA

Well Depth (ft bls):	532
Casing Diameter (in):	5
Static Water Level (ft bmp):	125.96
Casing Volume (gal):	414 x3 = 1,243
Total Volume Purged (gal):	1,368

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:30	Pump On						
11:00	30	8	240	7.57	22.9	383.1	
11:30	60	8	480	7.57	23.1	388.3	
12:00	90	8	720	7.55	23.0	388.5	
12:30	120	8	960	7.55	23.1	388.7	
13:00	150	8	1200	7.53	23.1	388.2	
13:10	160	8	1,280	7.53	23.1	388.6	
13:11							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2010-3M	13:15	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-21-20

Well ID: BMO-2012-1M Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls): 405

Casing Diameter (in): 5"

Static Water Level (ft bmp): 216.17

Casing Volume (gal): 192.7 x3 = 578

Total Volume Purged (gal): 600

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0545	Pump On						
0555	10	6	60	7.21	23.8	958	
0615	30	6	180	7.19	23.1	960	
0645	60	6	360	7.20	23.2	962	
0725	100	6	600	7.22	23.1	960	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2012-1M	0725	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [x] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 189

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	BMG-2014-1BL	Weather:	clear, 90s
ADWR No:	917394	Sampler:	JH

WELL DATA

Well Depth (ft bls):	366
Casing Diameter (in):	5
Static Water Level (ft bmp):	127.50
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		Pump Inoperable					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NO Sample							
Pump Inoperable							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: Pump Inoperable

Additional Comments: Pump not functioning - has been showing signs of failing for past quarterly sampling events

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	BMO-2014-1BU	Weather:	Clear, 90s
ADWR No:	917393	Sampler:	SH

WELL DATA

Well Depth (ft bls):	273
Casing Diameter (in):	5
Static Water Level (ft bmp):	127.73
Casing Volume (gal):	148 x3 = 445
Total Volume Purged (gal):	510

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
09 00	Pump On						
09:10	10	15	150	7.23	21.3	768.9	
09:20	20	15	300	7.23	21.2	751.7	
09:30	30	15	450	7.23	21.2	732.1	
09 34							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-1BU	09:32	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	BMO-2014-2BL	Weather:	Clear, 70s
ADWR No:	917452	Sampler:	JA

WELL DATA

Well Depth (ft bls):	396
Casing Diameter (in):	5
Static Water Level (ft bmp):	130.73
Casing Volume (gal):	271 x3 = 813
Total Volume Purged (gal):	990

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0640	Pump On						
0655	15	15	225	6.96	21.1	1194	
0710	30	15	450	7.09	21.1	1192	
0725	45	15	675	7.10	21.0	1189	
0740	60	15	900	7.08	21.1	1187	
0746							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-2BL	0743	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	BMO-2014-2BU	Weather:	Clear, 70s
ADWR No:	917453	Sampler:	JA

WELL DATA

Well Depth (ft bls):	276
Casing Diameter (in):	5
Static Water Level (ft bmp):	130.75
Casing Volume (gal):	148 x3 = 445
Total Volume Purged (gal):	525

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0752	Pump On						
0802	10	15	150	7.41	20.6	548.1	
0812	20	15	300	7.37	20.6	551.3	
0822	30	15	450	7.35	20.6	551.0	
0827							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-2BU	0824	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	BMO-2014-3BL	Weather:	Mostly clear, 90s
ADWR No:	917527	Sampler:	JA

WELL DATA

Well Depth (ft bls):	521
Casing Diameter (in):	5
Static Water Level (ft bmp):	142.99
Casing Volume (gal):	386 x3 = 1,157
Total Volume Purged (gal):	1,290

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1030	Pump On						
1050	20	15	300	7.27	22.1	427.0	
1110	40	15	600	7.33	22.2	423.6	
1130	60	15	900	7.33	22.2	420.9	
1150	80	15	1200	7.33	22.3	415.1	
1156							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-3BL	11:54	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/6/20

Well ID: BMO-2014-3BU Weather: PT. Cloudy, 90s

ADWR No: 917494 Sampler: JA

WELL DATA

Well Depth (ft bls): 288

Casing Diameter (in): 5

Static Water Level (ft bmp): 144.08

Casing Volume (gal): 147 x3 = 441

Total Volume Purged (gal): 540

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
12 03	Pump On						
12 13	10	15	150	7.32	20.8	480.4	
12 23	20	15	300	7.31	20.7	479.1	
12 33	30	15	450	7.31	20.7	478.8	
12 39							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-3BU	12:35	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/5/20
Well ID:	BMO-2014-4B	Weather:	pt. cloudy, 90s
ADWR No:	917620	Sampler:	JA

WELL DATA

Well Depth (ft bls):	258
Casing Diameter (in):	5
Static Water Level (ft bmp):	137.37
Casing Volume (gal):	123 x3 = 369
Total Volume Purged (gal):	555

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
11:09	Pump On						
11:19	10	15	150	7.25	21.2	487.0	
11:29	20	15	300	7.26	21.1	487.5	
11:39	30	15	450	7.26	21.2	487.7	
11:41							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-4B	11:43	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/5/20
Well ID:	BMO-2014-4BL	Weather:	pt cloudy, 90s
ADWR No:	917619	Sampler:	JH

WELL DATA

Well Depth (ft bls):	261
Casing Diameter (in):	5
Static Water Level (ft bmp):	136.86
Casing Volume (gal):	127 x3 = 381
Total Volume Purged (gal):	570

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1155	Pump On						
1205	10	15	150	7.22	21.4	669.7	
1215	20	15	300	7.20	21.4	681.8	
1225	30	15	450	7.21	21.4	687.8	
1233							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2014-4BL	12:27	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/5/20
Well ID:	BMO-2015-1B	Weather:	Mostly Clear, 90s
ADWR No:	917622	Sampler:	JA

WELL DATA

Well Depth (ft bls):	244
Casing Diameter (in):	5
Static Water Level (ft bmp):	133.35
Casing Volume (gal):	113 x3 = 339
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0925	Pump On						
0935	10	15	150	7.31	21.0	739.1	
0945	20	15	300	7.33	21.0	732.3	
0955	30	15	450	7.34	21.0	725.0	
10:01							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-1B	09:57	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/5/20
Well ID:	BMO-2015-1BL	Weather:	Mostly clear, 90s
ADWR No:	917621	Sampler:	JH

WELL DATA

Well Depth (ft bls):	241
Casing Diameter (in):	5
Static Water Level (ft bmp):	134.62
Casing Volume (gal):	109 x3 = 327
Total Volume Purged (gal):	540

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1008	Pump On						
1018	10	15	150	7.29	21.2	823.1	
1028	20	15	300	7.29	21.2	822.0	
1038	30	15	450	7.31	21.2	820.1	
1044							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at)/ near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-1BL	1042	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/5/20
Well ID:	BMO-2015-2B	Weather:	clear, 80s
ADWR No:	917827	Sampler:	JH

WELL DATA

Well Depth (ft bls):	268
Casing Diameter (in):	5
Static Water Level (ft bmp):	153.31
Casing Volume (gal):	117 x3 = 351
Total Volume Purged (gal):	645

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0728	Pump On						
0738	10	15	150	6.79	21.0	914.2	
0748	20	15	300	6.89	21.0	895.4	
0758	30	15	450	7.21	21.0	887.7	
0803	35	15	525	7.22	21.0	883.3	
0805	37	15	555	7.22	21.1	884.1	
0811							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-2B	0807	Poly	250 mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/5/20
Well ID:	BMO-2015-2BL	Weather:	clear, 80s
ADWR No:	917828	Sampler:	JH

WELL DATA

Well Depth (ft bls):	272
Casing Diameter (in):	5
Static Water Level (ft bmp):	151.95
Casing Volume (gal):	123 x3 = 369
Total Volume Purged (gal):	570

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0817	Pump On						
0827	10	15	150	7.13	21.2	969.9	
0837	20	15	300	7.13	21.2	956.2	
0847	30	15	450	7.13	21.2	946.2	
0855							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BMO-2015-2BL	08:50	Poly	250mL	1	300.0	NP	y
DUP 20200805	12:00	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Duplicate sample collected w/ primary, labeled as 12:00

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/14/20
Well ID:	BOOTH	Weather:	NA
ADWR No:	914931	Sampler:	JA

WELL DATA

Well Depth (ft bls):	240
Casing Diameter (in):	6
Static Water Level (ft bmp):	NPA
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	No	Property					
	access						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NPA							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: NPA

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: NPA

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/11/20
Well ID:	BURKE	Weather:	Overcast, 90s
ADWR No:	212268	Sampler:	JH

WELL DATA

Well Depth (ft bls):	781
Casing Diameter (in):	6
Static Water Level (ft bmp):	Use 587.06 from 8/3/15
Casing Volume (gal):	285 x3 = 855
Total Volume Purged (gal):	480

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1604	Pump On						
1614	5	12	60	7.56	27.9	491.1	
1619	10	12	120	7.57	27.9	491.6	
1629	25	12	240	7.57	28.0	491.2	
1630							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other): Spigot at pressure tank near storage

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
BURKE	1630	Poly	250mL	1	3000	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: NO WL per owner request due to past sounder stuck

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☒ Other: Sampled from storage tank - no by pass to isolate well

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/12/20
Well ID:	CHAMBERS	Weather:	cloudy, 80s
ADWR No:	629807	Sampler:	JA

WELL DATA

Well Depth (ft bls):	245
Casing Diameter (in):	6
Static Water Level (ft bmp):	IVC
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Well Flopraste						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
CHAMBERS							
well impermb.							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Per owner, on city water, well may function manually but doesn't have time for setup / clearing shrubs to access wellhead

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/14/20
Well ID:	COB MW-1B	Weather:	NA
ADWR No:	225906	Sampler:	SH

WELL DATA

Well Depth (ft bls):	500
Casing Diameter (in):	6
Static Water Level (ft bmp):	IWL
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL	0					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: NO WL per owner request due to multiple sounders breaking & stuck in well

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/11/20
Well ID:	COB MW-2	Weather:	clear, 90s
ADWR No:	903984	Sampler:	JH

WELL DATA

Well Depth (ft bls):	162
Casing Diameter (in):	4
Static Water Level (ft bmp):	134.02
Casing Volume (gal):	18 x3 = 55
Total Volume Purged (gal):	138

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0937	Pump On						
0942	5	6	30	7.25	19.8	594.2	
0947	10	6	60	7.24	19.9	598.9	
0952	15	6	90	7.25	19.9	600.6	
10:00							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: PVC pipe at wellhead)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB MW-2	0955	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/11/20
Well ID:	COB MW-3	Weather:	Clear, 90s
ADWR No:	906823	Sampler:	JA

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	4
Static Water Level (ft bmp):	137.35
Casing Volume (gal):	106 x3 = 318
Total Volume Purged (gal):	442

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
(4)	(0.65)
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0850	Pump On						
0855	5	17	85	7.25	20.4	452.4	
0900	10	17	170	7.43	20.4	475.2	
0905	15	17	255	7.47	20.4	483.5	
0910	20	17	340	7.48	20.4	485.8	
0916							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other): PVC pipe at wellhead

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB MW-3	09:11	Poly	250mL	1	3000	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Plus 2 filtered Samples

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/4/20
Well ID:	COB WL	Weather:	pt cloudy 100
ADWR No:	593116	Sampler:	JH

WELL DATA

Well Depth (ft bls):	150
Casing Diameter (in):	4
Static Water Level (ft bmp):	94.79
Casing Volume (gal):	36 x3 = 108
Total Volume Purged (gal):	120

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
(4)	(0.65)
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
14:35	Pump On						
14:40	5	7	35	6.85	20.9	1118	
14:45	10	1	40	6.96	21.3	1119	
15:05	30	1	60	7.09	23.4	1115	
15:25	50	1	80	7.06	23.3	1106	
15:45	70	1	100	7.06	23.4	1111	
15:55	80	1	110	7.06	23.4	1108	
16:05							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: PVC pipe at wellhead

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
COB WL	16:00	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/14/20
Well ID:	COOPER	Weather:	NA
ADWR No:	623564	Sampler:	JA

WELL DATA

Well Depth (ft bls):	325
Casing Diameter (in):	6
Static Water Level (ft bmp):	IWL / NPA
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	NO Property						
	access						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
well is dry							
NPA							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: NO property access

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: well inaccessible / dry

Additional Comments: per Owner - well is dry - no property access until new well installed (?)

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-17-20

Well ID: Cooper C Weather: Sunny

ADWR No: Sampler: Christopher L Skeen

WELL DATA

Well Depth (ft bls):	220
Casing Diameter (in):	6"
Static Water Level (ft bmp):	165.98
Casing Volume (gal):	79.5 x3 = 238.58
Total Volume Purged (gal):	297

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0830	Pump On						
0840	10	8.5	85	6.96	21.8	1549	
0850	20	8.5	170	6.98	21.9	1545	
0900	30	8.5	297	6.97	21.9	1546	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Cooper C	0900	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 54.1

CLEAR

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/13/20

Well ID: DODSON Weather: pt. cloudy, 100s

ADWR No: 644927 Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 6

Static Water Level (ft bmp): 99.10

Casing Volume (gal): 148 x3 = 445

Total Volume Purged (gal): 578

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
12 01	Pump On						
12 11	10	17	170	6.85	20.6	2274	
1221	20	17	340	6.90	20.6	2237	
1231	30	17	510	6.87	20.6	2215	
12:35							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
DODSON	12:35	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 5/14/20

Well ID: DOUGLASS 791 | Weather: pt. cldy, 90s

ADWR No: 592791 | Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 5

Static Water Level (ft bmp): 27.69

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WL	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/14/20

Well ID: DOUGLAS 792 Weather: Pt. Cloudy, 90s

ADWR No: 592792 Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 5

Static Water Level (ft bmp): 85.28

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

WLO

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/13/20

Well ID: EAST Weather: Overcast, mid, 90s

ADWR No: 599796 Sampler: JA

WELL DATA

Well Depth (ft bls): 125

Casing Diameter (in): 6

Static Water Level (ft bmp): 77.26

Casing Volume (gal): 70 x3 = 211

Total Volume Purged (gal): 264

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1551	Pump On						
1559	8	11	88	7.26	20.7	616.1	
1601	10	11	110	7.24	20.7	616.5	
1606	15	11	165	7.20	20.5	611.8	
1611	20	11	220	7.17	20.3	612.3	
16:15							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
EAST	16:15	Poly	250 mL	1	300.0	No	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/10/20

Well ID: ECHAVE Weather: Overcast, 90s

ADWR No: 219449 Sampler: JA

WELL DATA

Well Depth (ft bls): 345

Casing Diameter (in): 6

Static Water Level (ft bmp): 221.50

Casing Volume (gal): 182 x3 = 546

Total Volume Purged (gal): 144

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1427	Pump On						
1432	5	8	40	7.76	30.7	399.8	
1437	10	8	80	7.74	30.5	398.4	
1442	15	8	120	7.74	30.4	397.0	
1445							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other): Spigot on garage

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ECHAVE	1445	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Water from tank, filled by pump - no bypass available, sample from spigot near tank on garage

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/14/20
Well ID:	EPPELE 641	Weather:	NA
ADWR No:	805641	Sampler:	JA

WELL DATA

Well Depth (ft bls):	265
Casing Diameter (in):	8
Static Water Level (ft bmp):	IWL / NPA
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	No property access						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NPA							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: No property access

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: NPA

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/12/20
Well ID:	FRANCO 383	Weather:	Clear, 90s
ADWR No:	221383	Sampler:	JA

WELL DATA

Well Depth (ft bls):	711
Casing Diameter (in):	5
Static Water Level (ft bmp):	200.58
Casing Volume (gal):	521 x3 = 1,563
Total Volume Purged (gal):	1,668

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:20	Pump On						
10:50	30	12	360	7.41	26.4	1101	
11:20	60	12	720	7.41	26.3	1104	
11:50	90	12	1,080	7.41	26.4	1103	
12:20	120	12	1,440	7.42	26.5	1100	
12:35	135	12	1,620	7.40	26.5	1105	
12:39							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
FRANCO 383	12:39	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	GARNER 557	Weather:	pt. cloudy, 90s
ADWR No:	558557	Sampler:	JA

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	6
Static Water Level (ft bmp):	202.36
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	GARNER 635	Weather:	pt. cldy, 90s
ADWR No:	587635	Sampler:	JA

WELL DATA

Well Depth (ft bls):	680
Casing Diameter (in):	5
Static Water Level (ft bmp):	204.32
Casing Volume (gal):	485 x3 = 1,456
Total Volume Purged (gal):	1,599

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1320	Pump On						
1350	30	13	390	7.51	24.2	473.0	
1420	60	13	780	7.50	24.3	473.1	
1450	90	13	1,170	7.51	24.2	473.7	
1520	120	13	1,560	7.51	24.2	473.6	
1523							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
GARNER 635	1523	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/20/20

Well ID: GOAR RANCH Weather: pt cloudy, 100s

ADWR No: 610695 Sampler: JA

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 7

Static Water Level (ft bmp): 195.34

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WLO						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 9-8-20

Well ID: Hoban Weather: Sunny

ADWR No: Sampler: Christopher L Shuma

WELL DATA

Well Depth (ft bls): 300

Casing Diameter (in): 5"

Static Water Level (ft bmp): 174.47

Casing Volume (gal): 128.1 x3 = 384.3

Total Volume Purged (gal): 528

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0700	Pump On						
0710	10	17.6	176	7.16	22.6	1482	
0720	20	17.6	352	7.17	22.6	1488	
0730	30	17.6	528	7.15	24.4	1487	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Hoban	0730	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

☒ Water level measurement collected.

☐ No water level measurement collected. No access to wellhead/No port in wellhead

☐ No water level measurement collected. Obstruction in well.

☐ No water level measurement collected. Well is pumping.

☐ Other:

WELL PURGING INFORMATION

☒ Purged 3 well volumes and field parameters stabilized.

☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.

☐ Purged well until field parameters stabilized.

☐ Other:

Additional Comments: 125.6

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/21/20
Well ID:	HOWARD 312	Weather:	Mostly cloudy, 90s
ADWR No:	221312	Sampler:	JA

WELL DATA

Well Depth (ft bls):	980
Casing Diameter (in):	5
Static Water Level (ft bmp):	205.37
Casing Volume (gal):	790 x3 = 2,370
Total Volume Purged (gal):	2475

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10 50	Pump On						
11 20	30	9	270	7.79	23.6	607.7	
11 50	60	9	540	8.09	24.9	608.0	
12 20	90	9	810	8.10	26.0	608.8	
12 50	120	9	1080	8.07	26.5	611.7	
13 20	150	9	1,350	8.05	26.5	609.5	
13 50	180	9	1,620	8.03	26.5	616.3	
14 35	225	9	2,025	8.03	26.4	613.9	
15 20	270	9	2,430	8.07	26.7	611.7	
15 25							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: (Spigot at / near wellhead) Other: Pressure tank shed

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
HOWARD 312	15:25	Poly	250 mL	1	300.0	NP	Y
DUP20200722	12:00	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Duplicate sample collected w/ primary sample, labeled at 12:00

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/21/20

Well ID: HOWARD NR | Weather: mostly clear, 90s

ADWR No: NR | Sampler: JA

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): 161.07

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/22/20

Well ID: KEEFER Weather: Mostly cloudy, 90s

ADWR No: 209744 Sampler: JH

WELL DATA

Well Depth (ft bls): 245

Casing Diameter (in): 6

Static Water Level (ft bmp): 145.42

Casing Volume (gal): 146 x3 = 438

Total Volume Purged (gal): 459

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1010	Pump On						
1020	10	9	90	7.33	21.6	484.6	
1030	20	9	180	7.30	20.0	492.3	
1040	30	9	270	7.35	20.8	492.6	
1050	40	9	360	7.35	21.0	493.4	
1100	50	9	450	7.35	20.2	496.3	
1101							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
KEEFER	1101	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-25-20

Well ID: LADP-251 Weather: Sunny

ADWR No: Sampler: Christopher L Stumm

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 225.33

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-25-20

Well ID: LADD-435 Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 253.14

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Slug only

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-25-20

Well ID: LADP-538 Weather: Sunny

ADWR No: Sampler: Christopher L Shuman

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 213.80

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-25-20

Well ID: LADD-635 Weather: Sunny

ADWR No: Sampler: Christopher L Sherman

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 186.34

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Pump Running - SWL only

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-25-20

Well ID: LADD-837 Weather: Sunny

ADWR No: Sampler: Christopher L Sharma

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 299.29

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-25-20

Well ID: LAQD-977 Weather: Sunny

ADWR No: Sampler: Christopher L Stevens

WELL DATA

Well Depth (ft bls):

Casing Diameter (in):

Static Water Level (ft bmp): 89.28

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/10/20

Well ID: MCCONNELL 265 Weather: pt. Cloudy, 90s

ADWR No: 539265 Sampler: JH

WELL DATA

Well Depth (ft bls): 216

Casing Diameter (in): 6

Static Water Level (ft bmp): 167.46

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/10/20

Well ID: MCCONNELL 459 Weather: pt cldy, 96.

ADWR No: 221459 Sampler: JA

WELL DATA

Well Depth (ft bls): 863

Casing Diameter (in): 5

Static Water Level (ft bmp): 171.11

Casing Volume (gal): 706 x3 = 2,118

Total Volume Purged (gal): 2,165

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1035	Pump On						
1105	30	13	390	8.02	25.0	443.6	
1135	60	13	780	8.00	25.4	453.7	
1205	90	13	1,170	8.00	25.4	452.8	
1235	120	13	1,560	8.00	25.5	452.4	
1305	150	13	1,950	8.00	25.6	451.7	
1320	165	13	2,145	8.01	25.5	450.9	
1321							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at) / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
MCCONNELL 459	1321	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/11/20
Well ID:	METZLER	Weather:	cloudy, 90s
ADWR No:	35-71891	Sampler:	JH

WELL DATA

Well Depth (ft bls):	351
Casing Diameter (in):	6
Static Water Level (ft bmp):	295.97
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	60					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WL0							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WL0

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/22/20

Well ID: MOORE Weather: Overcast, 90's

ADWR No: 538847 Sampler: JN

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): 157.32

Casing Volume (gal): 92 x3 = 276

Total Volume Purged (gal): 325

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0922	Pump On						
0932	10	13	130	7.36	21.9	452.9	
0942	20	13	260	7.36	21.9	448.0	
0945	23	13	299	7.35	21.9	447.0	
0947							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Hose Tee at gate

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
MOORE	0947	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/14/20
Well ID:	NESS	Weather:	ptcloudy 100s
ADWR No:	509127	Sampler:	TA

WELL DATA

Well Depth (ft bls):	812
Casing Diameter (in):	6
Static Water Level (ft bmp):	584.34
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1111	Pump On						
1111				7.73	28.0	535.1	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: spigot by booster pump inlet)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NESS	1111	poly	250 ml	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: water storage tank sampled

Additional Comments: Hand filtered sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/30/20

Well ID: NSD-02 Weather: clear, 80s

ADWR No: 527587 Sampler: JA

WELL DATA

Well Depth (ft bls): 120

Casing Diameter (in): 12

Static Water Level (ft bmp): 108.14

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL		0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WL 0							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [x] Other: WL 0

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/30/20
Well ID:	NSD-03	Weather:	clear, 80s
ADWR No:	527586	Sampler:	JH

WELL DATA

Well Depth (ft bls):	100
Casing Diameter (in):	12
Static Water Level (ft bmp):	93.51*
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments: well recovering for ~3 hrs after pumped

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/22/20

Well ID: NVC-02 Weather: overcast, 90s

ADWR No: 562944 Sampler: JH

WELL DATA

Well Depth (ft bls): 312

Casing Diameter (in): 6

Static Water Level (ft bmp): 171.19

Casing Volume (gal): 207 x3 = 621

Total Volume Purged (gal): 1440

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0748	Pump On						
0753	5	90	450	7.51	21.3	433.6	
0758	10	90	900	7.51	21.3	431.2	
0803	15	90	1350	7.47	21.3	437.9	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NVC-02	0804	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hmm Lo flow Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/22/20
Well ID:	NWC-03 CAP	Weather:	Overcast, 80s
ADWR No:	627684	Sampler:	JH

WELL DATA

Well Depth (ft bls):	179
Casing Diameter (in):	8
Static Water Level (ft bmp):	DRY - IWL
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		WL	0				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected. — WLO TB dry
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/20

Well ID: NWC-04 | Weather: Overcast, PCJ

ADWR No: 551849 | Sampler: JH

WELL DATA

Well Depth (ft bls): 462

Casing Diameter (in): 10

Static Water Level (ft bmp): INC

Casing Volume (gal): x3 =

Total Volume Purged (gal): 85

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0659	Pump On						
0705	6	5	30	7.33	24.7	863.1	
0710	11	5	55	7.34	24.8	861.4	
0715	16	5	80	7.34	25.0	861.3	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-04	0716	Poly	250ml	1	3500	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead – has a port but new control w/ Pitless by-pass
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Final filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 7/22/20

Well ID: NWC - 06 Weather: Overcast, 90s

ADWR No: 575700 Sampler: JA

WELL DATA

Well Depth (ft bls): 340

Casing Diameter (in): 8

Static Water Level (ft bmp): 165.81

Casing Volume (gal): 455 x3 = 1,365

Total Volume Purged (gal): 2,176

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0834	Pump On						
0839	5	136	680	7.46	21.9	412.9	
0844	10	136	1,360	7.44	21.9	412.2	
0849	15	136	2,040	7.47	21.9	412.0	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-06	0850	Poly	250ml	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/5/20
Well ID:	OLMOS	Weather:	Pt. Cloudy
ADWR No:	224745	Sampler:	JA

WELL DATA

Well Depth (ft bls):	306
Casing Diameter (in):	5
Static Water Level (ft bmp):	152.38
Casing Volume (gal):	226 x3 = 678
Total Volume Purged (gal):	756

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	~~1.47~~
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1253	Pump On						
1308	15	12	180	7.22	21.4	423.3	
1323	30	12	360	7.21	21.3	425.7	
1338	45	12	540	7.21	21.3	435.9	
1353	60	12	720	7.20	21.3	438.3	
1358							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
OLMOS	1356	Poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/14/20
Well ID:	OS BORN	Weather:	pt. cloudy, 100s
ADWR No:	643436	Sampler:	JA

WELL DATA

Well Depth (ft bls):	25F
Casing Diameter (in):	4
Static Water Level (ft bmp):	DWL
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Dropcable pump						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Dropcable pump							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Dropcable pump

Additional Comments: water in storage tank has been hauled in from out of area

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 8/14/20

Well ID: PALMER | Weather: pt. Cloudy, 90s

ADWR No: 578819 | Sampler: JA

WELL DATA

Well Depth (ft bls): 220

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0959	Pump On						
				7.75	26.5	534.8	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: kitchen sink)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PALMER	0959	poly	250 mL	1	300.0	NP	Y
DUP20200814	"12:00"	poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Sampled from kitchen sink - filled 1 gallon jug

Additional Comments: Hand filtered Samples, collected Duplicate w/ primary sample

C:\Users\jalden\Desktop\Common Forms\CQB Groundwater Sampling Sheet 2019-01-03

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/13/20

Well ID: PANAGAKOS Weather: PT Cloudy, 90s

ADWR No: 35-76413 Sampler: JA

WELL DATA

Well Depth (ft bls): 200

Casing Diameter (in): 8

Static Water Level (ft bmp): 163.46

Casing Volume (gal): 95 x3 = 286

Total Volume Purged (gal): 320

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
(8)	(2.61)
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1105	Pump On						
1115	10	10	10	7.27	20.6	1260	
1125	20	10	200	7.28	20.6	1253	
1135	30	10	300	7.21	20.6	1254	
1137							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PANTGAKOS	1137	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/12/20

Well ID: PIONKE 395 Weather: cloudy, 90s

ADWR No: 613395 Sampler: JA

WELL DATA

Well Depth (ft bls): 330

Casing Diameter (in): 8

Static Water Level (ft bmp): 159.73

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/12/20
Well ID:	PIONKE 517	Weather:	Cloudy, 90s
ADWR No:	221517	Sampler:	JA

WELL DATA

Well Depth (ft bls):	604
Casing Diameter (in):	5
Static Water Level (ft bmp):	156.55
Casing Volume (gal):	456 x3 = 1,369
Total Volume Purged (gal):	1,484

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
(5)	(1.02)
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
14 55	Pump On						
15 25	30	14	420	7.48	22.8	391.4	
15 55	60	14	840	7.47	22.9	391.4	
16 25	90	14	1,260	7.47	22.8	390.5	
16 40	105	14	1,470	7.48	22.8	393.1	
16 41							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
PIONKE 517	16 41	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/10/20
Well ID:	POOL	Weather:	overcast, 90s
ADWR No:	509518	Sampler:	SH

WELL DATA

Well Depth (ft bls):	313
Casing Diameter (in):	6
Static Water Level (ft bmp):	213.56
Casing Volume (gal):	146 x3 = 439
Total Volume Purged (gal):	~ 19

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1353	Pump On						
1354	1	1		7.41	25.9	576.6	
1356	3	1		7.41	25.7	580.8	
1358	5	8		7.40	25.6	581.5	
1402							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: Spigot on wall)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
POOL	14:02	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [x] Other: Ran for 2 min at 8gpm, ran for 3 min at ~1gpm

Additional Comments: No purge Per owner request

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/13/20
Well ID:	POWER 639	Weather:	pt cloudy, 90s
ADWR No:	222639	Sampler:	JH

WELL DATA

Well Depth (ft bls):	480
Casing Diameter (in):	6
Static Water Level (ft bmp):	246.98
Casing Volume (gal):	269 x3 = 807
Total Volume Purged (gal):	396

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	~~1.47~~
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
09:49	Pump On						
09:54	5	9*	45	7.90	21.9	418.9	
09:59	10	9	90	7.87	21.9	418.9	
10:04	15	9	135	7.67	21.8	542.5	
10:09	30	9	270	7.45	21.8	685.9	
10:24	35	9	315	7.41	21.7	725.0	
10:29	40	9	360	7.37	21.7	753.5	
1033							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
POWER 639	1033	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: * 1-2 gpm additional flowing from pressure test pipe leak

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	RAMIREZ	Weather:	Cloudy 90s
ADWR No:	216425	Sampler:	JH

WELL DATA

Well Depth (ft bls):	300
Casing Diameter (in):	6
Static Water Level (ft bmp):	169.88
Casing Volume (gal):	191. x3 = 574
Total Volume Purged (gal):	693

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0937	Pump On						
0952	15	11	165	7.26	22.6	435.1	
1007	30	11	330	7.31	22.7	429.9	
1022	45	11	495	7.32	22.5	420.9	
1037	60	11	660	7.31	22.6	423.1	
1040							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot (at / near) wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RAMIREZ	1040	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/13/20

Well ID: RAY Weather: clear, 100s

ADWR No: 803772 Sampler: JA

WELL DATA

Well Depth (ft bls): 100

Casing Diameter (in): 8

Static Water Level (ft bmp): 60.56

Casing Volume (gal): 103 x3 = 309

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1459	Pump On						
1509	10	10	100	6.81	20.8	1364	
1519	20	10	200	6.81	20.8	1375	
1529	30	10	300	6.81	20.6	1345	
1534	35	10	350	6.80	20.5	1362	
1536							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RAY	1536	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 8/11/20

Well ID: ROGERS 596 | Weather: pt. cloudy

ADWR No: 573596 | Sampler: JA

WELL DATA

Well Depth (ft bls): 290

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL / NPA [use 140.82 from ROGERS 503 F/nbe]

Casing Volume (gal): 219 x3 = 658 [141.56 from 4/30/19]

Total Volume Purged (gal): 756

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10:25	Pump On						
10:55	30	6	180	6.82	24.2	1729	Orange/t-brown/rust color
11:25	60	6	360	6.82	23.5	1700	clear
11:55	90	6	540	6.85	23.3	1568	↓
12:25	120	6	720	6.86	23.2	1536	
12:30	125	6	750	6.86	23.1	1518	
12:31							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other): spigot 'T' in drive way

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ROGERS 596	12:31	poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead — No property access - gate locked
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☒ Purged 3 well volumes based on previous water level and field parameters stabilized. 143.75 from 1/22/20
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Purged 3 volumes based on nearby well w/ historically similar WLs

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/11/20

Well ID: ROGERS 803 Weather: p.l. cloudy, 90s

ADWR No: 641803 Sampler: JA

WELL DATA

Well Depth (ft bls): 140

Casing Diameter (in): 6

Static Water Level (ft bmp): 140.82*

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	INOPERABLE PUMP						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Inoperable Pump							

WATER LEVEL MEASUREMENT COLLECTION

- ☒ Water level measurement collected. * Mud on probe
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Pump inoperable, pumping well / house supply is ROGERS 596

Additional Comments: * wet mud on probe - possibly near TD(?)

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/7/20
Well ID:	ROGERS E	Weather:	Cloudy, 90s
ADWR No:	216018	Sampler:	JH

WELL DATA

Well Depth (ft bls):	285
Casing Diameter (in):	6
Static Water Level (ft bmp):	160.14
Casing Volume (gal):	184 x3 = 552
Total Volume Purged (gal):	744

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
10 57	Pump On						
11:12	15	12	180	7.32	21.5	432.0	
11:27	30	12	360	7.32	21.5	430.3	
11:42	45	12	540	7.39	21.5	430.6	
11:57	60	12	720	7.35	21.5	431.2	
11:59							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ROGERS E	11:59	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/12/20

Well ID: RUIZ Weather: pt. cloudy, 90s

ADWR No: 531770 Sampler: JH

WELL DATA

Well Depth (ft bls): 312

Casing Diameter (in): 6

Static Water Level (ft bmp): IWL - capped

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Inoperable Pump						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Inorganic Phase							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: No pump in well / Inoperable

Additional Comments: Pump has been removed & wellhead is capped - plate welded on - Replaced w/ RUIZ 146

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/12/20

Well ID: RUIZ 146 Weather: pt. cloudy 90s

ADWR No: 232146 Sampler: JA

WELL DATA

Well Depth (ft bls): 500

Casing Diameter (in): 6

Static Water Level (ft bmp): 301.12

Casing Volume (gal): 292 x3 = 877

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1345	Pump On						
1355	10	4*	40 (100)	7.08	22.1	649.1	
1405	20	4	80 (200)	7.14	22.1	670.4	
1415	30	4	120 (300)	7.12	22.1	6735	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: Spigot under storage tank

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
RUIZ 146		poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: * Pump rated at 10 gpm, can feel water flowing up to storage tank - tank float valve will shut off pump before full - full purge not possible

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/22/20

Well ID: SCHWARTZ | Weather: Mostly cloudy, 90s

ADWR No: 210865 | Sampler: JA

WELL DATA

Well Depth (ft bls): 305

Casing Diameter (in): 6

Static Water Level (ft bmp): 132.76

Casing Volume (gal): 253 x3 = 760

Total Volume Purged (gal): 847

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1125	Pump On						
1140	15	11	165	7.16	21.4	639.3	
1155	30	11	330	7.24	21.3	663.0	
1210	45	11	495	7.26	21.3	667.5	
1225	60	11	660	7.24	21.3	676.4	
1240	75	11	825	7.26	21.2	676.1	
1242							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
SCHWARTZ	1242	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 | Client: Freeport Copper Queen Branch

Task No: 2 | Date: 7/20/20

Well ID: STEPHENS | Weather: pt cloudy, 100s

ADWR No: 805560 | Sampler: JA

WELL DATA

Well Depth (ft bls): N/A

Casing Diameter (in):

Static Water Level (ft bmp): 53.58

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	WL	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/14/20

Well ID: SWAN Weather: NA

ADWR No: NR Sampler: JA

WELL DATA

Well Depth (ft bls): 98

Casing Diameter (in): 4

Static Water Level (ft bmp): IVL / NPA

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	NO property access						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NPA							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☒ Other: NO property access

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: NPA

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/13/20

Well ID: TERRY Weather: pt. cldy, 90s

ADWR No: 229470 Sampler: JA

WELL DATA

Well Depth (ft bls): NA (~210)

Casing Diameter (in): 6

Static Water Level (ft bmp): INL

Casing Volume (gal): x3 =

Total Volume Purged (gal): 108

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0907	Pump On						
0912	5	6	30	7.29	21.9	447.1	
0917	10	6	60	7.36	21.8	450.9	
0922	15	6	90	7.38	21.6	453.6	
0928							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other: spigot stickup in yard by well box

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TERRY	0928	poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/12/20
Well ID:	THOMPSON 151	Weather:	cloudy, 80s
ADWR No:	612151	Sampler:	JA

WELL DATA

Well Depth (ft bls):	210
Casing Diameter (in):	7
Static Water Level (ft bmp):	Inc
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WLO							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: WLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/12/20
Well ID:	THOMPSON 341	Weather:	cloudy, 90s
ADWR No:	218341	Sampler:	JA

WELL DATA

Well Depth (ft bls):	285
Casing Diameter (in):	7
Static Water Level (ft bmp):	171.37
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0935	Pump On						
0937	2			7.21	21.5	418.2	
0939	4			7.25	21.7	409.7	
0941	6			7.29	21.6	420.3	
0945							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
THOMPSON 341		Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [x] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-20-20

Well ID: TM-2A Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sturm

WELL DATA

Well Depth (ft bls): 925

Casing Diameter (in): 4"

Static Water Level (ft bmp): 337.15

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductence (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: Sturm only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-10-20

Well ID: TM-6 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sturm

WELL DATA

Well Depth (ft bls): 200'

Casing Diameter (in): 4"

Static Water Level (ft bmp): 116.27

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: TM-7 Date: 8-24-20

Well ID: Weather: Partly Cloudy

ADWR No: BO well Sampler: Christopher L Sturm

WELL DATA

Well Depth (ft bls): 350

Casing Diameter (in): 4"

Static Water Level (ft bmp):

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: No sample collected - Column broke on well

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/3/20

Well ID: TM-10 45BP Weather: Overcast, 90s

ADWR No: 522696 Sampler: JA

WELL DATA

Well Depth (ft bls): 290

Casing Diameter (in): 4

Static Water Level (ft bmp): 256.07

Casing Volume (gal): 22 x3 = 66

Total Volume Purged (gal): 180

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
(4)	(0.65)
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1429	Pump On						
1434	5	9	45	7.53	21.4	370.3	
1439	10	9	90	7.60	21.4	372.2	
1444	15	9	135	7.62	21.4	374.5	
1449							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead (Other: PVC pipe from wellhead)

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-10 45BP	14:47	Poly	250mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: Hand filtered Sample

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-24-20

Well ID: TM-15 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shannon

WELL DATA

Well Depth (ft bls):	325
Casing Diameter (in):	4"
Static Water Level (ft bmp):	302.43
Casing Volume (gal):	14.7 x3 = 44
Total Volume Purged (gal):	270

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0615	Pump On						
0625	10	9	90	7.58	22.9	384	
0635	20	9	180	7.69	23.2	382	
0645	30	9	270	7.67	22.9	386	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-15	0645	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 226

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 7-20-20

Well ID: TM-1L Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Sturm

WELL DATA

Well Depth (ft bls): 115

Casing Diameter (in): 4"

Static Water Level (ft bmp): 60.72

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-17-20

Well ID: TM-19A Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Shums

WELL DATA

Well Depth (ft bls): 700

Casing Diameter (in): 4"

Static Water Level (ft bmp): 211.36

Casing Volume (gal): 317.6 x3 = 953

Total Volume Purged (gal): 1000

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0545	Pump On						
0600	15	25	375	7.50	23.4	514	
0610	25	25	625	7.51	23.5	513	
0625	40	25	1000	7.52	23.5	515	
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
TM-19A	0625	PL	250	1	300	Ice	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field paremeters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments: 488.7

CLEAR

Groundwater Sampling Form

Project No: 287030 Client: Freeport Copper Queen Branch

Task No: Date: 8-10-20

Well ID: TM-42 Weather: Partly Cloudy

ADWR No: Sampler: Christopher L Stevens

WELL DATA

Well Depth (ft bls): 250

Casing Diameter (in): 5"

Static Water Level (ft bmp): 222.31

Casing Volume (gal): x3 =

Total Volume Purged (gal):

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field paremeters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: SWL only

CLEAR

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/11/20
Well ID:	TVE 236	Weather:	clear, 90s
ADWR No:	502236	Sampler:	SH

WELL DATA

Well Depth (ft bls):	222
Casing Diameter (in):	12
Static Water Level (ft bmp):	131.43
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	Impervible pump						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Impervible Pump							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: Impervible pump - pump off

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	TVI - 713	Weather:	clear, 80s
ADWR No:	567713	Sampler:	JH

WELL DATA

Well Depth (ft bls):	200
Casing Diameter (in):	8
Static Water Level (ft bmp):	135.81
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
DUP 0							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: VLO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	8/6/20
Well ID:	TVI F75	Weather:	clear, 80s
ADWR No:	568875	Sampler:	JH

WELL DATA

Well Depth (ft bls):	330
Casing Diameter (in):	8
Static Water Level (ft bmp):	Invl
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
		Irrigable pump					
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
Irrigable pump							

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☐ Purged well until field parameters stabilized.
- ☒ Other: Irrigable pump / power locked out

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/21/20
Well ID:	WEED	Weather:	Overcast, 90s
ADWR No:	544535	Sampler:	JA

WELL DATA

Well Depth (ft bls):	320
Casing Diameter (in):	6
Static Water Level (ft bmp):	146
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	36

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1600	Pump On						
1602	2	4 *		7.61	21.1	382.8	
1604	4	4		7.62	21.2	383.9	
1606	6	4		7.63	21.2	384.2	
1609							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WEED	1607	Poly	250mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☒ No water level measurement collected. No access to wellhead/No port in wellhead
- ☐ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: * Additional flow to storage tank not measured

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/23/20
Well ID:	WEISKOPF 802	Weather:	Overcast, rain, 80s
ADWR No:	641802	Sampler:	JH

WELL DATA

Well Depth (ft bls):	200
Casing Diameter (in):	6
Static Water Level (ft bmp):	154.23
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
	Pump On						
	W	L	O				
							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WCO							

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [ ] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [x] Other: WCO

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	7/23/20
Well ID:	WESKOPF 897	Weather:	Overcast, rain, 80s
ADWR No:	220897	Sampler:	JA

WELL DATA

Well Depth (ft bls):	1030
Casing Diameter (in):	5
Static Water Level (ft bmp):	154.84
Casing Volume (gal):	893 x3 = 2,679
Total Volume Purged (gal):	2,758

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
0855	Pump On						
0925	30	14	420	7.55	23.5	385.0	
0955	60	14	840	7.66	23.5	383.5	
1025	90	14	1,260	7.64	23.6	382.0	
1055	120	14	1,680	7.61	23.6	382.9	
1125	150	14	2,100	7.65	23.9	378.3	
1155	180	14	2,520	7.62	23.7	380.8	
1210	195	14	2,730	7.59	23.7	381.5	
1212							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
WESKOPF 897	1212	poly	250 mL	1	300.0	NP	Y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized.
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No: CC18.1080.00 Client: Freeport Copper Queen Branch

Task No: 2 Date: 8/11/20

Well ID: ZANDER Weather: pt. cloudy, 90s

ADWR No: 205126 Sampler: JA

WELL DATA

Well Depth (ft bls): 280

Casing Diameter (in): 6

Static Water Level (ft bmp): 155.71

Casing Volume (gal): 183 x3 = 549

Total Volume Purged (gal): 624

Casing Capacity	
Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
(6)	(1.47)
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1457	Pump On						
1512	15	12	180	7.28	21.2	425.8	
1527	30	12	360	7.29	21.2	426.1	
1542	45	12	540	7.28	21.2	426.2	
1547	50	12	600	7.29	21.2	426.3	
1549							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
ZANDER	1549	Poly	250 mL	1	300.0	NP	y

WATER LEVEL MEASUREMENT COLLECTION

- [x] Water level measurement collected.
- [ ] No water level measurement collected. No access to wellhead/No port in wellhead
- [ ] No water level measurement collected. Obstruction in well.
- [ ] No water level measurement collected. Well is pumping.
- [ ] Other:

WELL PURGING INFORMATION

- [x] Purged 3 well volumes and field parameters stabilized.
- [ ] Purged 3 well volumes based on previous water level and field parameters stabilized
- [ ] Purged well until field parameters stabilized.
- [ ] Other:

Additional Comments:

CLEAR CREEK ASSOCIATES

Groundwater Sampling Form

Project No:	CC18.1080.00	Client:	Freeport Copper Queen Branch
Task No:	2	Date:	11-23-20
Well ID:	NWC-84	Weather:	Mstly clear, 38s
ADWR No:	551849	Sampler:	JA

WELL DATA

Well Depth (ft bls):	462
Casing Diameter (in):	10
Static Water Level (ft bmp):	IWL
Casing Volume (gal):	x3 =
Total Volume Purged (gal):	772

Casing Capacity

Nominal Size (inches)	Gallons per Linear Foot
2	0.16
4	0.65
5	1.02
6	1.47
8	2.61
10	4.08
16	10.44
20	16.31

Casing Volume = gallons/foot * water column (feet)

FIELD SAMPLING DATA

Time	Elapsed Time (min)	Discharge Rate (gpm)	Total Discharge (gallons)	pH (SU)	Temp (°C)	Specific Conductance (µS/cm)	Comments
1020	Pump On						
1022		17		7.13	22.7	933.3	
1029		17		7.54	23.0	421.0	
1035		17		7.47	23.7	918.1	
1036		17		7.49	24.1	913.5	
1036							Pump Off

FIELD PARAMETER STABILIZATION: Three consecutive readings within 0.3 su pH, 2 degrees C, and 100 µS/cm)

SAMPLE INFORMATION

Sample Collection Point: Spigot at / near wellhead Other:

Sample ID	Time	Container Type	Volume	No. of Containers	Analysis Method	Preservative	Filtered (y/n)
NWC-84	1039	Poly	250mL	1	300.0	NP	/

WATER LEVEL MEASUREMENT COLLECTION

- ☐ Water level measurement collected.
- ☐ No water level measurement collected. No access to wellhead/No port in wellhead
- ☒ No water level measurement collected. Obstruction in well.
- ☐ No water level measurement collected. Well is pumping.
- ☐ Other:

WELL PURGING INFORMATION

- ☐ Purged 3 well volumes and field parameters stabilized.
- ☐ Purged 3 well volumes based on previous water level and field parameters stabilized.
- ☒ Purged well until field parameters stabilized.
- ☐ Other:

Additional Comments: 1/2" sounding tube - sounder sticking at ~60ft bmp. WL using NWC's 3/4" sounder ~360 ft bmp

CLEAR CREEK ASSOCIATES

APPENDIX B

ANALYTICAL REPORTS

January 24, 2020

Ben Daigneau
Clear Creek Associates
221 N. Court Ave., Suite 101
Tucson, AZ 85701

TEL (520) 622-3222
FAX (520) 622-4040

Work Order No.: 20A0308
Order Name: Well Expansion sulfate

RE: CQB Quarterly Monitoring

Dear Ben Daigneau,

Turner Laboratories, Inc. received 19 sample(s) on 01/10/2020 for the analyses presented in the following report.

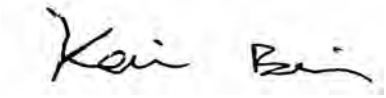
The attached report has been revised. Please refer to the Case Narrative page for an explanation of the changes. We apologize for any inconvenience this may have caused you.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,
Turner Laboratories, Inc.
ADHS License AZ0066



Kevin Brim
Project Manager

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Date Received: 01/10/2020

Order: Well Expansion sulfates 20+ samples

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20A0308-01	BMO-2010-3B	Ground Water	01/06/2020 1344
20A0308-02	FB20200106	Ground Water	01/06/2020 1200
20A0308-03	EB20200106	Ground Water	01/06/2020 1200
20A0308-04	BMO-2010-3M1	Ground Water	01/06/2020 1215
20A0308-05	BMO-2014-1BL	Ground Water	01/08/2020 1319
20A0308-06	BMO-2014-1BCl	Ground Water	01/08/2020 1106
20A0308-07	BMO-2014-2BL	Ground Water	01/08/2020 0853
20A0308-08	BMO-2014-2BU	Ground Water	01/08/2020 0946
20A0308-09	BMO-2014-3BL	Ground Water	01/09/2020 1212
20A0308-10	BMO-2014-3BCl	Ground Water	01/09/2020 1030
20A0308-11	BMO-2014-4B	Ground Water	01/07/2020 1410
20A0308-12	BMO-2014-4BL	Ground Water	01/07/2020 1314
20A0308-13	BMO-2015-1BL	Ground Water	01/07/2020 1201
20A0308-14	BMO-2015-1B	Ground Water	01/07/2020 1141
20A0308-15	BMO-2015-2B	Ground Water	01/07/2020 0829
20A0308-16	BMO-2015-2BL	Ground Water	01/07/2020 0916
20A0308-17	COB WL	Ground Water	01/07/2020 1726
20A0308-18	TM-10 USBP	Ground Water	01/06/2020 1441
20A0308-19	DCP20200106	Ground Water	01/06/2020 1000

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Date Received: 01/10/2020

Case Narrative

This report was originally generated on 1/23/2020. It is being revised on 1/24/2020 to include the correction of Sample ID's per client, which was not on the original report.

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-01

Client Sample ID: BMO-2010-3B
Collection Date/Time: 01/06/2020 1344
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	21.0	1.50	5.00		mg/L	1	01/17/2020 1000	01/21/2020 1118	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-02

Client Sample ID: FB20200106
Collection Date/Time: 01/06/2020 1200
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00	E8	mg/L	1	01/17/2020 1000	01/21/2020 1136	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-03

Client Sample ID: EB20200106
Collection Date/Time: 01/06/2020 1200
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00	E8	mg/L	1	01/17/2020 1000	01/21/2020 1155	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-04

Client Sample ID: BMO-2010-3M1
Collection Date/Time: 01/06/2020 1215
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	9.01	1.50	5.00		mg/L	1	01/17/2020 1000	01/21/2020 1213	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-05

Client Sample ID: BMO-2014-1BL
Collection Date/Time: 01/08/2020 1319
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	163	15.0	50.0		mg/L	10	01/17/2020 1000	01/21/2020 1232	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-06

Client Sample ID: BMO-2014-1BCl
Collection Date/Time: 01/08/2020 1106
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	169	15.0	50.0		mg/L	10	01/17/2020 1000	01/21/2020 1347	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-07

Client Sample ID: BMO-2014-2BL
Collection Date/Time: 01/08/2020 0853
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	454	37.5	125		mg/L	25	01/17/2020 1000	01/21/2020 1502	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-08

Client Sample ID: BMO-2014-2BU
Collection Date/Time: 01/08/2020 0946
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	58.6	7.50	25.0		mg/L	5	01/17/2020 1000	01/21/2020 1912	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-09

Client Sample ID: BMO-2014-3BL
Collection Date/Time: 01/09/2020 1212
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.31	1.50	5.00		mg/L	1	01/17/2020 1000	01/21/2020 1521	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-10

Client Sample ID: BMO-2014-3BCl
Collection Date/Time: 01/09/2020 1030
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.00	1.50	5.00		mg/L	1	01/17/2020 1000	01/21/2020 1540	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-11

Client Sample ID: BMO-2014-4B
Collection Date/Time: 01/07/2020 1410
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	63.9	7.50	25.0		mg/L	5	01/17/2020 1000	01/21/2020 1931	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-12

Client Sample ID: BMO-2014-4BL
Collection Date/Time: 01/07/2020 1314
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	206	15.0	50.0		mg/L	10	01/17/2020 1000	01/21/2020 1950	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-13

Client Sample ID: BMO-2015-1BL
Collection Date/Time: 01/07/2020 1201
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	261	15.0	50.0		mg/L	10	01/17/2020 1000	01/21/2020 2009	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-14

Client Sample ID: BMO-2015-1B
Collection Date/Time: 01/07/2020 1141
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	210	15.0	50.0		mg/L	10	01/17/2020 1000	01/21/2020 2028	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-15

Client Sample ID: BMO-2015-2B
Collection Date/Time: 01/07/2020 0829
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	277	15.0	50.0		mg/L	10	01/17/2020 1000	01/21/2020 2046	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-16

Client Sample ID: BMO-2015-2BL
Collection Date/Time: 01/07/2020 0916
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	323	30.0	100		mg/L	20	01/17/2020 1000	01/22/2020 0110	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-17

Client Sample ID: COB WL
Collection Date/Time: 01/07/2020 1726
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	76.1	7.50	25.0		mg/L	5	01/17/2020 1000	01/22/2020 0129	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-18

Client Sample ID: TM-10 USBP
Collection Date/Time: 01/06/2020 1441
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	14.9	1.50	5.00		mg/L	1	01/17/2020 1000	01/17/2020 2213	EJ

Turner Laboratories, Inc.

Date: 01/24/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Lab Sample ID: 20A0308-19

Client Sample ID: DCP20200106
Collection Date/Time: 01/06/2020 1000
Matrix: Ground Water
Order Name: Well Expansion sulfates 20+ sample

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	9.07	1.50	5.00		mg/L	1	01/17/2020 1000	01/17/2020 2232	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20A0308
Date Received: 01/10/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2001194 - IC PREP										
Blank (2001194-BLK1)				Prepared & Analyzed: 01/17/2020						
Sulfate	ND	5.00	mg/L							
LCS (2001194-BS1)				Prepared & Analyzed: 01/17/2020						
Sulfate	12.7	5.00	mg/L	12.50		102	90-110			
LCS Dup (2001194-BSD1)				Prepared & Analyzed: 01/17/2020						
Sulfate	12.4	5.00	mg/L	12.50		99	90-110	3	10	
Matrix Spike (2001194-MS1)		**Source: 20A0308-02**		Prepared & Analyzed: 01/17/2020						
Sulfate	12.6	5.00	mg/L	12.50	ND	101	80-120			
Matrix Spike (2001194-MS2)		**Source: 20A0308-03**		Prepared & Analyzed: 01/17/2020						
Sulfate	12.7	5.00	mg/L	12.50	ND	102	80-120			
Matrix Spike Dup (2001194-MSD1)		**Source: 20A0308-02**		Prepared & Analyzed: 01/17/2020						
Sulfate	12.6	5.00	mg/L	12.50	ND	101	80-120	0.3	10	
Matrix Spike Dup (2001194-MSD2)		**Source: 20A0308-03**		Prepared & Analyzed: 01/17/2020						
Sulfate	12.7	5.00	mg/L	12.50	ND	102	80-120	0.2	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20A0308 DATE 1/10 PAGE 1 OF 2

PROJECT NAME CQB # CC18.1080.00
CONTACT NAME: Ben Daigneau
COMPANY NAME: Clear Creek Associates
ADDRESS: 221 N. Court Ave Ste 101, ~~Tucson, AZ~~
CITY Tucson STATE AZ ZIP CODE 85701
PHONE 520-622-3222 FAX
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS: Sulfate 300.0
BMO-2018-38	1-6-20	1344		G Water	X
FB20200106	1-6-20	1200		G Water	X
EB20200106	1-6-20	1200		G Water	X
BMO-2018-34L	1-6-20	1215		G Water	X
BMO-2014-28L	1-8-20	1319		G Water	X
BMO-2014-28U	1-9-20	1106		Groundwater	X
BMO-2014-28L	1-8-20	0853		Groundwater	X
BMO-2014-28U	1-8-20	0946		Groundwater	X
BMO-2014-38L	1-8-20	1212		Groundwater	X
BMO-2014-30U	1-8-20	1030		Groundwater	X
BMO-2014-48	1-7-20	1416		Groundwater	X

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
William R Tinnell Jr
Printed Name
Clear Creek Associates
Firm
01-10-20 ~~0700~~
Date/Time

2. RECEIVED BY:
Signature
Lisa Sagar
Printed Name
Clear Creek ASSOC
Firm
1/10/20 0700
Date/Time

TURNAROUND REQUIREMENTS:
X Standard (approx. 10 days)*
___Next day ___2 Day ___5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ___ Y ___ N
P.O. #
Bill to:

SAMPLE RECEIPT:
Total Containers 15
Temperature 3.9
Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Lisa Sagar
Printed Name
Clear Creek ASSOC
Firm
1/10/20 9:02
Date/Time

4. RECEIVED BY:
Signature
Cooper Black
Printed Name
TURNER LABORATORIES, INC.
Firm
1/10 902
Date/Time

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☐	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☐	Received Within Hold Time	☐

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20A0308 DATE 1/10 PAGE 2 OF 2

PROJECT NAME CQB # CC18.1080.00
CONTACT NAME: Ben Daigneau
COMPANY NAME: Clear Creek Associates
ADDRESS: 226 N. Court Ave Ste 101
CITY Tucson STATE AZ ZIP CODE 85701
PHONE 520-622-3222 FAX
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS: SUHAE 3000
BMO					
BMO-2015-28L	1-7-20	1344		Groundwater	X
BMO-2015-28	1-7-20	1441 1201		Groundwater	X
BMO-2015-28L	1-7-20	1141		Groundwater	X
BMO-2015-28	1-7-20	0829		Groundwater	X
BMO-2015-28L	1-7-20	0916		Groundwater	X
COB WL	1-7-20	1726		Groundwater	X
TM-10 USBP	1-6-20	1441		Groundwater	X

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature: William R Tinnell Jr
Printed Name: Clear Creek Associates
Firm
Date/Time: 01-10-20 0700

2. RECEIVED BY:
Signature: Kristi Sagar
Printed Name: Clear Creek
Firm
Date/Time: 1/20/20 0700

3. RELINQUISHED BY:
Signature: Kristi Sagar
Printed Name: Clear Creek ASSOC
Firm
Date/Time: 1/20/20 09:00

4. RECEIVED BY:
Signature: Cooper Blair
Printed Name: TURNER LABORATORIES, INC
Firm
Date/Time: 1/10 902

TURNAROUND REQUIREMENTS:
X Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ___ Y ___ N
P.O. #
Bill to:

SAMPLE RECEIPT:
Total Containers 18
Temperature 2.9
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☐	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☐	Received Within Hold Time	☐

* Client requested Sample ID's be changed 1/24/20

January 28, 2020

Ben Daigneau
Clear Creek Associates
221 N. Court Ave., Suite 101
Tucson, AZ 85701

TEL (520) 622-3222
FAX (520) 622-4040

Work Order No.: 20A0473
Order Name: CQ8

RE: Ground Water

Dear Ben Daigneau,

Turner Laboratories, Inc. received 17 sample(s) on 01/17/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Date Received: 01/17/2020

Order: CQ8

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20A0473-01	AWC-05	Ground Water	01/13/2020 1035
20A0473-02	AWC-03	Ground Water	01/13/2020 1117
20A0473-03	AWC-04	Ground Water	01/13/2020 1152
20A0473-04	AWC-02	Ground Water	01/13/2020 1358
20A0473-05	COB MW-2	Ground Water	01/14/2020 1000
20A0473-06	PANAGAKOS	Ground Water	01/14/2020 1332
20A0473-07	DUP20201401	Ground Water	01/14/2020 1332
20A0473-08	COB MW-1B	Ground Water	01/14/2020 1146
20A0473-09	FB20201501	Ground Water	01/15/2020 1200
20A0473-10	EB20201501	Ground Water	01/15/2020 1200
20A0473-11	POWER639	Ground Water	01/15/2020 1110
20A0473-12	DODSON	Ground Water	01/15/2020 1316
20A0473-13	NWC-04	Ground Water	01/16/2020 0852
20A0473-14	NWC-06	Ground Water	01/16/2020 1048
20A0473-15	NWC-02	Ground Water	01/16/2020 1134
20A0473-16	RUIZ	Ground Water	01/16/2020 1358
20A0473-17	KEEFER	Ground Water	01/17/2020 1116

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Date Received: 01/17/2020

Case Narrative

E4	Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-01

Client Sample ID: AWC-05
Collection Date/Time: 01/13/2020 1035
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	20.2	1.50	5.00		mg/L	1	01/20/2020 1318	01/20/2020 1410	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-02

Client Sample ID: AWC-03
Collection Date/Time: 01/13/2020 1117
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	74.4	3.00	10.0		mg/L	2	01/20/2020 1318	01/22/2020 1319	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-03

Client Sample ID: AWC-04
Collection Date/Time: 01/13/2020 1152
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	22.5	1.50	5.00		mg/L	1	01/20/2020 1318	01/20/2020 1448	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-04

Client Sample ID: AWC-02
Collection Date/Time: 01/13/2020 1358
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	20.5	1.50	5.00		mg/L	1	01/20/2020 1318	01/20/2020 1506	EJ

Client:	Clear Creek Associates	**Client Sample ID:**	COB MW-2
Project:	Ground Water	**Collection Date/Time:**	01/14/2020 1000
Work Order:	20A0473	**Matrix:**	Ground Water
Lab Sample ID:	20A0473-05	**Order Name:**	CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	24.8	1.50	5.00		mg/L	1	01/20/2020 1318	01/20/2020 1525	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-06

Client Sample ID: PANAGAKOS
Collection Date/Time: 01/14/2020 1332
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	457	37.5	125		mg/L	25	01/20/2020 1300	01/22/2020 1242	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-07

Client Sample ID: DUP20201401
Collection Date/Time: 01/14/2020 1332
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	461	37.5	125		mg/L	25	01/20/2020 1300	01/22/2020 1300	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-08

Client Sample ID: COB MW-1B
Collection Date/Time: 01/14/2020 1146
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	851	150	500		mg/L	100	01/20/2020 1300	01/22/2020 1319	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-09

Client Sample ID: FB20201501
Collection Date/Time: 01/15/2020 1200
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	2.44	1.50	5.00	E4	mg/L	1	01/20/2020 1300	01/20/2020 1622	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-10

Client Sample ID: EB20201501
Collection Date/Time: 01/15/2020 1200
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	1.67	1.50	5.00	E4	mg/L	1	01/20/2020 1300	01/20/2020 1646	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-11

Client Sample ID: POWER639
Collection Date/Time: 01/15/2020 1110
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	180	15.0	50.0		mg/L	10	01/20/2020 1300	01/22/2020 1338	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-12

Client Sample ID: DODSON
Collection Date/Time: 01/15/2020 1316
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	42.3	1.50	5.00		mg/L	1	01/20/2020 1510	01/20/2020 1603	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-13

Client Sample ID: NWC-04
Collection Date/Time: 01/16/2020 0852
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	199	15.0	50.0		mg/L	10	01/20/2020 1510	01/22/2020 1344	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-14

Client Sample ID: NWC-06
Collection Date/Time: 01/16/2020 1048
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.74	1.50	5.00		mg/L	1	01/20/2020 1510	01/20/2020 1641	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-15

Client Sample ID: NWC-02
Collection Date/Time: 01/16/2020 1134
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.83	1.50	5.00		mg/L	1	01/22/2020 1141	01/22/2020 1146	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-16

Client Sample ID: RUIZ
Collection Date/Time: 01/16/2020 1358
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	176	15.0	50.0		mg/L	10	01/22/2020 1141	01/22/2020 1204	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Lab Sample ID: 20A0473-17

Client Sample ID: KEEFER
Collection Date/Time: 01/17/2020 1116
Matrix: Ground Water
Order Name: CQ8

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.07	1.50	5.00		mg/L	1	01/22/2020 1141	01/22/2020 1223	EJ

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Date Received: 01/17/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2001209 - E300.0 (2.1)										
Blank (2001209-BLK1)				Prepared & Analyzed: 01/20/2020						
Sulfate	ND	5.00	mg/L							
LCS (2001209-BS1)				Prepared & Analyzed: 01/20/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2001209-BSD1)				Prepared & Analyzed: 01/20/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110	0.3	10	
Matrix Spike (2001209-MS1)		**Source: 20A0479-02**		Prepared & Analyzed: 01/20/2020						
Sulfate	27	5.00	mg/L	12.50	16	91	80-120			
Matrix Spike (2001209-MS2)		**Source: 20A0484-01**		Prepared & Analyzed: 01/20/2020						
Sulfate	35	5.00	mg/L	12.50	25	87	80-120			
Matrix Spike Dup (2001209-MSD1)		**Source: 20A0479-02**		Prepared & Analyzed: 01/20/2020						
Sulfate	26	5.00	mg/L	12.50	16	88	80-120	2	10	
Matrix Spike Dup (2001209-MSD2)		**Source: 20A0484-01**		Prepared & Analyzed: 01/20/2020						
Sulfate	36	5.00	mg/L	12.50	25	90	80-120	1	10	
Batch 2001210 - E300.0 (2.1)										
Blank (2001210-BLK1)				Prepared & Analyzed: 01/20/2020						
Sulfate	ND	5.00	mg/L							
LCS (2001210-BS1)				Prepared & Analyzed: 01/20/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2001210-BSD1)				Prepared & Analyzed: 01/20/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110	0.3	10	
Matrix Spike (2001210-MS1)		**Source: 20A0473-09**		Prepared & Analyzed: 01/20/2020						
Sulfate	13	5.00	mg/L	12.50	2.4	81	80-120			
Matrix Spike Dup (2001210-MSD1)		**Source: 20A0473-09**		Prepared & Analyzed: 01/20/2020						
Sulfate	13	5.00	mg/L	12.50	2.4	81	80-120	0.4	10	
Batch 2001247 - E300.0 (2.1)										
Blank (2001247-BLK1)				Prepared & Analyzed: 01/22/2020						
Sulfate	ND	5.00	mg/L							
LCS (2001247-BS1)				Prepared & Analyzed: 01/22/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2001247-BSD1)				Prepared & Analyzed: 01/22/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110	0.2	10	
Matrix Spike (2001247-MS1)		**Source: 20A0473-15**		Prepared: 01/22/2020 Analyzed: 01/23/2020						
Sulfate	19	5.00	mg/L	12.50	7.8	89	80-120			
Matrix Spike (2001247-MS2)		**Source: 20A0473-17**		Prepared: 01/22/2020 Analyzed: 01/23/2020						
Sulfate	18	5.00	mg/L	12.50	7.1	88	80-120			

Client: Clear Creek Associates
Project: Ground Water
Work Order: 20A0473
Date Received: 01/17/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2001247 - E300.0 (2.1)										
Matrix Spike Dup (2001247-MSD1)	**Source: 20A0473-15**			Prepared: 01/22/2020 Analyzed: 01/23/2020						
Sulfate	19	5.00	mg/L	12.50	7.8	88	80-120	0.2	10	
Matrix Spike Dup (2001247-MSD2)	**Source: 20A0473-17**			Prepared: 01/22/2020 Analyzed: 01/23/2020						
Sulfate	18	5.00	mg/L	12.50	7.1	89	80-120	0.05	10	

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Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20A0473 DATE 1/17 PAGE 1 OF 2

PROJECT NAME CQB # CC18.1080.00
CONTACT NAME: Ben Daigneau
COMPANY NAME: Clear Creek Associates
ADDRESS: 221 N. Court Ave. #5t 101
CITY Tucson STATE AZ ZIP CODE 85701
PHONE 520-622-3222 FAX
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 to 504
AWC-05	1-13-20	1035		groundwater	1	X
AWC-03	1-13-20	1117		groundwater	1	X
AWC-04	1-13-20	1152		groundwater	1	X
AWC-02	1-13-20	1358		groundwater	1	X
COB MW-2	1-14-20	1000		Groundwater	1	X
PANAGAKOS	1-14-20	1332		Groundwater	1	X
DUP 20201401	1-14-20	1332		Groundwater	1	X
COB MW-1B	1-14-20	1146		Groundwater	1	X
FB20201501	1-15-20	1200		Groundwater	1	X
EB20201501	1-15-20	1200		Groundwater	1	X
POWER639	1-15-20	1110		Groundwater	2	X

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
William R. Tidwell Jr
Printed Name
Clear Creek Associates
Firm
01-17-20 1633
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
1/17 1633
Date/Time

TURNAROUND REQUIREMENTS:
Standard (approx.10 days)*
Next day 2 Day 5 Day*
Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
I. Routine Report
II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account Y N
P.O. #
Bill to:

SAMPLE RECEIPT:
Total Containers 17
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2040473 DATE 1/17 PAGE 2 OF 2

PROJECT NAME CQB # CC18.1098.00
CONTACT NAME: Ben Daigneau
COMPANY NAME: Clear Creek Associates
ADDRESS: 221 N Court Ave Ste. 101
CITY Tucson STATE AZ ZIP CODE 85701
PHONE 520-622-3222 FAX
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300 SO4
DODSON	1-15-20	1316		Groundwater	1	X
NWC-04	1-16-20	0852		Groundwater	1	X
NWC-06	1-16-20	1048		Groundwater	1	X
NWC-02	1-16-20	1134		Groundwater	1	X
RUIZ	1-16-20	1358		Groundwater	1	X
KEEFER	1-17-20	1116		Groundwater	1	X

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
William R Tinnell II
Printed Name
CCA
Firm
01-17-20 1633
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm 1/17 1633
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # _____
Bill to: _____

SAMPLE RECEIPT:
Total Containers 17
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes	☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes	☐ No	Container Intact	☐	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes	☐ No	COC/Labels Agree	☐	Received Within Hold Time	☐

February 04, 2020

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 20A0582
Order Name: CQB Quarterly
CC18.10080.00

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 8 sample(s) on 01/24/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Date Received: 01/24/2020

Order: CQB Quarterly CC18.10080.00

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20A0582-01	Rogers E	Ground Water	01/21/2020 1047
20A0582-02	Cooper	Ground Water	01/21/2020 1202
20A0582-03	FB20200121	Ground Water	01/21/2020 1200
20A0582-04	EQB20200121	Ground Water	01/21/2020 1200
20A0582-05	DUP20200121	Drinking Water	01/21/2020 1200
20A0582-06	Rogers 596	Ground Water	01/22/2020 1317
20A0582-07	Schwartz	Ground Water	01/22/2020 1449
20A0582-08	WEED	Ground Water	01/22/2020 1515

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Date Received: 01/24/2020

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-01

Client Sample ID: Rogers E
Collection Date/Time: 01/21/2020 1047
Matrix: Ground Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	6.30	1.50	5.00		mg/L	1	01/29/2020 1639	01/30/2020 0142	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-02

Client Sample ID: Cooper
Collection Date/Time: 01/21/2020 1202
Matrix: Ground Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	20.9	1.50	5.00		mg/L	1	01/29/2020 1639	01/30/2020 0206	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-03

Client Sample ID: FB20200121
Collection Date/Time: 01/21/2020 1200
Matrix: Ground Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00	E8	mg/L	1	01/29/2020 1639	01/30/2020 0231	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-04

Client Sample ID: EQB20200121
Collection Date/Time: 01/21/2020 1200
Matrix: Ground Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00	E8	mg/L	1	01/29/2020 1639	01/30/2020 0611	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-05

Client Sample ID: DUP20200121
Collection Date/Time: 01/21/2020 1200
Matrix: Drinking Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	21.2	1.50	5.00		mg/L	1	01/29/2020 1639	01/30/2020 0635	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-06

Client Sample ID: Rogers 596
Collection Date/Time: 01/22/2020 1317
Matrix: Ground Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	831	150	500		mg/L	100	01/29/2020 1639	01/30/2020 1917	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-07

Client Sample ID: Schwartz
Collection Date/Time: 01/22/2020 1449
Matrix: Ground Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	155	15.0	50.0		mg/L	10	01/29/2020 1639	01/30/2020 1936	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Lab Sample ID: 20A0582-08

Client Sample ID: WEED
Collection Date/Time: 01/22/2020 1515
Matrix: Ground Water
Order Name: CQB Quarterly CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	13.5	1.50	5.00		mg/L	1	01/29/2020 1639	01/30/2020 0749	EJ

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20A0582
Date Received: 01/24/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2001326 - E300.0 (2.1)										
Blank (2001326-BLK1)				Prepared & Analyzed: 01/29/2020						
Sulfate	ND	5.00	mg/L							
LCS (2001326-BS1)				Prepared & Analyzed: 01/29/2020						
Sulfate	12	5.00	mg/L	12.50		94	90-110			
LCS Dup (2001326-BSD1)				Prepared & Analyzed: 01/29/2020						
Sulfate	12	5.00	mg/L	12.50		93	90-110	1	10	
Matrix Spike (2001326-MS1)		**Source: 20A0582-01**		Prepared: 01/29/2020 Analyzed: 01/30/2020						
Sulfate	18	5.00	mg/L	12.50	6.3	95	80-120			
Matrix Spike (2001326-MS2)		**Source: 20A0582-04**		Prepared: 01/29/2020 Analyzed: 01/30/2020						
Sulfate	12	5.00	mg/L	12.50	ND	98	80-120			
Matrix Spike Dup (2001326-MSD1)		**Source: 20A0582-01**		Prepared: 01/29/2020 Analyzed: 01/30/2020						
Sulfate	18	5.00	mg/L	12.50	6.3	95	80-120	0.2	10	
Matrix Spike Dup (2001326-MSD2)		**Source: 20A0582-04**		Prepared: 01/29/2020 Analyzed: 01/30/2020						
Sulfate	12	5.00	mg/L	12.50	ND	98	80-120	0.03	10	

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20A0582 DATE 1/24 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC18.10080.00
CONTACT NAME : Chris Sherman
COMPANY NAME : Freeport McMoRan CQB
ADDRESS : 36 Highway 92
CITY Bisbee STATE AZ ZIP CODE 85603
PHONE 520-508-7063 FAX 520-432-1395
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	504 - 300.0
ROGERS E	1-21-20	10:47		GW	1	X
COOPER	1-21-20	12:02		GW	1	X
FB20200121	1-21-20	12:00		GW	1	X
EQB20200121	1-21-20	12:00		GW	1	X
DUP20200121	1-21-20	12:00		GW	1	X
ROGERS 596	1-22-20	13:17		GW	1	X
SCHWARTZ	1-22-20	14:49		GW	1	X
WEED	1-22-20	15:15		GW	1	X
				GW		
				GW		
				GW		

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
Jake Alden
Printed Name
Clear Creek Associates
Firm
1-24-20 09:30
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
CB
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
1/24 0930
Date/Time

TURNAROUND REQUIREMENTS:
X Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ___ N
P.O. # ___
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 8
Temperature 1.9
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

May 26, 2020

Ben Daigneau
Clear Creek Associates
221 N. Court Ave., Suite 101
Tucson, AZ 85701

TEL (520) 622-3222
FAX (520) 622-4040

Work Order No.: 20E0248
Order Name: CC19.1080.00

RE: CQB Quarterly Monitoring

Dear Ben Daigneau,

Turner Laboratories, Inc. received 2 sample(s) on 05/11/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20E0248
Date Received: 05/11/2020

Order: CC19.1080.00

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20E0248-01	NWC-04	Ground Water	05/11/2020 1024
20E0248-02	20201105 Dup	Ground Water	05/11/2020 1024

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20E0248
Date Received: 05/11/2020

Case Narrative

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 05/26/2020

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20E0248
Lab Sample ID: 20E0248-01

Client Sample ID: NWC-04
Collection Date/Time: 05/11/2020 1024
Matrix: Ground Water
Order Name: CC19.1080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	186	15.0	50.0		mg/L	10	05/24/2020 0848	05/24/2020 1321	EJ

Client:	Clear Creek Associates	**Client Sample ID:**	20201105 Dup
Project:	CQB Quarterly Monitoring	**Collection Date/Time:**	05/11/2020 1024
Work Order:	20E0248	**Matrix:**	Ground Water
Lab Sample ID:	20E0248-02	**Order Name:**	CC19.1080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	190	15.0	50.0		mg/L	10	05/24/2020 0848	05/24/2020 1339	EJ

Client: Clear Creek Associates
Project: CQB Quarterly Monitoring
Work Order: 20E0248
Date Received: 05/11/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2005262 - E300.0 (2.1)										
Blank (2005262-BLK1)				Prepared & Analyzed: 05/24/2020						
Sulfate	ND	5.00	mg/L							
LCS (2005262-BS1)				Prepared & Analyzed: 05/24/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2005262-BSD1)				Prepared & Analyzed: 05/24/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110	0.3	10	

TURNER LABORATORIES INC.
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Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20E0248 DATE 5/11/20 PAGE 1 OF 1

PROJECT NAME CQR # cc19.1080.00
CONTACT NAME: Ben Daigneau
COMPANY NAME: Clear Creek Associated
ADDRESS: 221 N. Court Ave #101 ~~Tucson, AZ~~ 2nd
CITY Tucson STATE AZ ZIP CODE
PHONE 5206223222 FAX
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0
NWC-04	5-11-20	1024		~~Water~~ GW		✓
20200505 DUP	5-11-20	1024		~~Water~~ GW		✓

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
William R Tinnell Jr
Printed Name
Clear Creek Associates
Firm
5-11-20 17:25
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
5/11/20 1325
Date/Time

TURNAROUND REQUIREMENTS:
____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account ____ Y ____ N
P.O. # ____
Bill to: ____

SAMPLE RECEIPT:
Total Containers 2
Temperature 2.1
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

* called Client analyze for SO4. Vann 5/11/20

August 04, 2020

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 20G0623
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 13 sample(s) on 07/23/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Date Received: 07/23/2020

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20G0623-01	HOWARD 312	Ground Water	07/21/2020 1525
20G0623-02	WEED	Ground Water	07/21/2020 1607
20G0623-03	NWC-04	Ground Water	07/22/2020 0716
20G0623-04	NWC-02	Ground Water	07/22/2020 0804
20G0623-05	NWC-06	Ground Water	07/22/2020 0850
20G0623-06	MOORE	Ground Water	07/22/2020 0947
20G0623-07	KEEFER	Ground Water	07/22/2020 1101
20G0623-08	SCHWARZ	Ground Water	07/22/2020 1242
20G0623-09	ANDERSON 458	Ground Water	07/22/2020 1001
20G0623-10	WEISKOPF 897	Ground Water	07/23/2020 1212
20G0623-11	DUP20200721	Ground Water	07/21/2020 1200
20G0623-12	FB20200721	Ground Water	07/21/2020 1200
20G0623-13	EQB20200721	Ground Water	07/21/2020 1200

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Date Received: 07/23/2020

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-01

Client Sample ID: HOWARD 312
Collection Date/Time: 07/21/2020 1525
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	75.7	15.0	50.0		mg/L	10	07/23/2020 1246	07/24/2020 1243	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-02

Client Sample ID: WEED
Collection Date/Time: 07/21/2020 1607
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	13.7	1.50	5.00		mg/L	1	07/23/2020 1246	07/23/2020 1850	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-03

Client Sample ID: NWC-04
Collection Date/Time: 07/22/2020 0716
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	200	15.0	50.0		mg/L	10	07/23/2020 1246	07/24/2020 1301	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-04

Client Sample ID: NWC-02
Collection Date/Time: 07/22/2020 0804
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.15	1.50	5.00		mg/L	1	07/23/2020 1246	07/23/2020 1925	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	NWC-06
Project:	CQB	**Collection Date/Time:**	07/22/2020 0850
Work Order:	20G0623	**Matrix:**	Ground Water
Lab Sample ID:	20G0623-05	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.75	1.50	5.00		mg/L	1	07/23/2020 1246	07/23/2020 1943	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-06

Client Sample ID: MOORE
Collection Date/Time: 07/22/2020 0947
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.03	1.50	5.00		mg/L	1	07/23/2020 1246	07/23/2020 2001	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	KEEFER
Project:	CQB	**Collection Date/Time:**	07/22/2020 1101
Work Order:	20G0623	**Matrix:**	Ground Water
Lab Sample ID:	20G0623-07	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.19	1.50	5.00		mg/L	1	07/23/2020 1246	07/23/2020 2019	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-08

Client Sample ID: SCHWARZ
Collection Date/Time: 07/22/2020 1242
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	138	15.0	50.0		mg/L	10	07/23/2020 1246	07/24/2020 1319	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-09

Client Sample ID: ANDERSON 458
Collection Date/Time: 07/22/2020 1001
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	24.0	1.50	5.00		mg/L	1	07/23/2020 1246	07/23/2020 2054	JG

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	WEISKOPF 897
Project:	CQB	**Collection Date/Time:**	07/23/2020 1212
Work Order:	20G0623	**Matrix:**	Ground Water
Lab Sample ID:	20G0623-10	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.9	1.50	5.00		mg/L	1	07/23/2020 1246	07/23/2020 2112	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-11

Client Sample ID: DUP20200721
Collection Date/Time: 07/21/2020 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	73.1	15.0	50.0		mg/L	10	07/23/2020 1246	07/24/2020 1336	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-12

Client Sample ID: FB20200721
Collection Date/Time: 07/21/2020 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00	E8	mg/L	1	07/23/2020 1246	07/23/2020 2317	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Lab Sample ID: 20G0623-13

Client Sample ID: EQB20200721
Collection Date/Time: 07/21/2020 1200
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00	E8	mg/L	1	07/23/2020 1246	07/23/2020 2335	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20G0623
Date Received: 07/23/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2007277 - E300.0 (2.1)										
Blank (2007277-BLK1)				Prepared & Analyzed: 07/23/2020						
Sulfate	ND	5.00	mg/L							
LCS (2007277-BS1)				Prepared & Analyzed: 07/23/2020						
Sulfate	13	5.00	mg/L	12.50		105	90-110			
LCS Dup (2007277-BSD1)				Prepared & Analyzed: 07/23/2020						
Sulfate	13	5.00	mg/L	12.50		105	90-110	0.4	10	
Matrix Spike (2007277-MS1)		**Source: 20G0617-01**		Prepared & Analyzed: 07/23/2020						
Sulfate	16	5.00	mg/L	12.50	3.8	95	80-120			
Matrix Spike (2007277-MS2)		**Source: 20G0623-02**		Prepared & Analyzed: 07/23/2020						
Sulfate	26	5.00	mg/L	12.50	14	94	80-120			
Matrix Spike Dup (2007277-MSD2)		**Source: 20G0623-02**		Prepared: 07/23/2020 Analyzed: 07/24/2020						
Sulfate	26	5.00	mg/L	12.50	14	95	80-120	0.4	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20G0623 DATE 7/23/20 PAGE 1 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX
HOWARD 332	7/21/20	15:25		GW	1	X
WEED	7/21/20	16:07		GW	1	X
NWC-04	7/22/20	07:16		GW	1	X
NWC-02	7/22/20	08:04		GW	1	X
NWC-06	7/22/20	08:50		GW	1	X
MOORE	7/22/20	09:47		GW	1	X
KEEFER	7/22/20	11:01		GW	1	X
SCHWARTZ	7/22/20	12:42		GW	1	X
ANDERSON 458	7/22/20	16:01		GW	1	X
WEISKOPF 847	7/23/20	12:12		GW	1	X
DUP20200722	7/21/20	12:00		GW	1	X

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 7-23-20 / 14:30

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 7/23/20 14:30

TURNAROUND REQUIREMENTS:
Standard (approx.10 days)*
Next day 2 Day 5 Day*
Email Preliminary Results To:
*Working Days

REPORT REQUIREMENTS:
I. Routine Report
II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 13
Temperature 4.4
Wet Ice Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	Yes	No	Custody Seals		Preservation Confirmation	
ADEQ Forms:	Yes	No	Container Intact		Appropriate Head Space	
Mail ADEQ Forms:	Yes	No	COC/Labels Agree		Received Within Hold Time	

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20G0623 DATE 7/23/20 PAGE 2 OF 2

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX
					SO4 - 300.0	
EQB20087721	7/21/20	12:00		GW	1	X
FB20087721	7/21/20	12:30		GW	1	X
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 7-23-20 / 14:30

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 7/23/20 14:30

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 13
Temperature 4.4
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☐	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☐	Received Within Hold Time	☐

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

August 17, 2020

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 20H0296
Order Name: CQB
#CC18.10080.00

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 26 sample(s) on 08/07/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Kevin Brim
Project Manager

Turner Laboratories, Inc.

Date: 08/17/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0296
Date Received: 08/07/2020

Order: CQB #CC18.10080.00

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20H0296-01	AWC-05	Ground Water	08/03/2020 1006
20H0296-02	AWC-03	Ground Water	08/03/2020 1035
20H0296-03	AWC-04	Ground Water	08/03/2020 1106
20H0296-04	AWC-02	Ground Water	08/03/2020 1347
20H0296-05	TM-10USBP	Ground Water	08/03/2020 1447
20H0296-06	BMO-2010-3B	Ground Water	08/04/2020 1015
20H0296-07	BMO-2010-3M	Ground Water	08/04/2020 1315
20H0296-08	COB-WL	Ground Water	08/04/2020 1600
20H0296-09	BMO-2015-2B	Ground Water	08/05/2020 0807
20H0296-10	BMO-2015-2BL	Ground Water	08/05/2020 0850
20H0296-11	BMO-2015-1B	Ground Water	08/05/2020 0957
20H0296-12	BMO-2015-1BL	Ground Water	08/05/2020 1040
20H0296-13	FB-20200805	Ground Water	08/05/2020 1200
20H0296-14	EQB2020805	Ground Water	08/05/2020 1200
20H0296-15	DUP2020805	Ground Water	08/05/2020 1200
20H0296-16	BMO-2014-4B	Ground Water	08/05/2020 1143
20H0296-17	BMO-2014-4BL	Ground Water	08/05/2020 1227
20H0296-18	OLMOS	Ground Water	08/05/2020 1240
20H0296-19	BMO-2014-2BL	Ground Water	08/06/2020 0743
20H0296-20	BMO-2014-2BU	Ground Water	08/06/2020 0824
20H0296-21	BMO-2014-1BU	Ground Water	08/06/2020 0932
20H0296-22	BMO-2014-3BL	Ground Water	08/06/2020 1154
20H0296-23	BMO-2014-3BU	Ground Water	08/06/2020 1235
20H0296-24	GARNER 635	Ground Water	08/06/2020 1523
20H0296-25	Ramirez	Ground Water	08/07/2020 1040
20H0296-26	Rogers E	Ground Water	08/07/2020 1159

Turner Laboratories, Inc.

Date: 08/17/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0296
Date Received: 08/07/2020

Case Narrative

E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 08/17/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0296
Lab Sample ID: 20H0296-01

Client Sample ID: AWC-05
Collection Date/Time: 08/03/2020 1006
Matrix: Ground Water
Order Name: CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	19.4	1.50	5.00		mg/L	1	08/10/2020 1230	08/10/2020 1819	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	AWC-03
Project:	CQB	**Collection Date/Time:**	08/03/2020 1035
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-02	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	77.2	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 1546	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	AWC-04
Project:	CQB	**Collection Date/Time:**	08/03/2020 1106
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-03	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	23.2	1.50	5.00		mg/L	1	08/10/2020 1230	08/10/2020 1855	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0296
Lab Sample ID: 20H0296-04

Client Sample ID: AWC-02
Collection Date/Time: 08/03/2020 1347
Matrix: Ground Water
Order Name: CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.3	1.50	5.00		mg/L	1	08/10/2020 1230	08/10/2020 1913	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	TM-10USBP
Project:	CQB	**Collection Date/Time:**	08/03/2020 1447
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-05	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	14.1	1.50	5.00		mg/L	1	08/10/2020 1230	08/10/2020 1931	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2010-3B
Project:	CQB	**Collection Date/Time:**	08/04/2020 1015
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-06	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	19.3	1.50	5.00		mg/L	1	08/10/2020 1230	08/10/2020 2100	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2010-3M
Project:	CQB	**Collection Date/Time:**	08/04/2020 1315
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-07	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	8.98	1.50	5.00		mg/L	1	08/10/2020 1230	08/10/2020 2117	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	COB-WL
Project:	CQB	**Collection Date/Time:**	08/04/2020 1600
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-08	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	84.8	15.0	50.0		mg/L	10	08/10/2020 1230	08/12/2020 1236	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2015-2B
Project:	CQB	**Collection Date/Time:**	08/05/2020 0807
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-09	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	299	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 1621	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0296
Lab Sample ID: 20H0296-10

Client Sample ID: BMO-2015-2BL
Collection Date/Time: 08/05/2020 0850
Matrix: Ground Water
Order Name: CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	327	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 1639	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2015-1B
Project:	CQB	**Collection Date/Time:**	08/05/2020 0957
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-11	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	206	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 1657	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2015-1BL
Project:	CQB	**Collection Date/Time:**	08/05/2020 1040
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-12	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	266	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 1715	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	FB-20200805
Project:	CQB	**Collection Date/Time:**	08/05/2020 1200
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-13	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00	E8	mg/L	1	08/10/2020 1230	08/10/2020 2304	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	DUP2020805
Project:	CQB	**Collection Date/Time:**	08/05/2020 1200
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-15	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	333	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 1732	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2014-4B
Project:	CQB	**Collection Date/Time:**	08/05/2020 1143
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-16	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	56.2	7.50	25.0		mg/L	5	08/10/2020 1230	08/11/2020 1750	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2014-4BL
Project:	CQB	**Collection Date/Time:**	08/05/2020 1227
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-17	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	166	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 1808	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	OLMOS
Project:	CQB	**Collection Date/Time:**	08/05/2020 1240
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-18	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.52	1.50	5.00		mg/L	1	08/10/2020 1230	08/11/2020 0145	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2014-2BL
Project:	CQB	**Collection Date/Time:**	08/06/2020 0743
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-19	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	421	30.0	100		mg/L	20	08/10/2020 1230	08/11/2020 1826	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2014-2BU
Project:	CQB	**Collection Date/Time:**	08/06/2020 0824
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-20	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	56.4	7.50	25.0		mg/L	5	08/10/2020 1230	08/11/2020 1955	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2014-1BU
Project:	CQB	**Collection Date/Time:**	08/06/2020 0932
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-21	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	168	15.0	50.0		mg/L	10	08/10/2020 1230	08/11/2020 2013	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2014-3BL
Project:	CQB	**Collection Date/Time:**	08/06/2020 1154
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-22	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.59	1.50	5.00		mg/L	1	08/10/2020 1230	08/11/2020 0256	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BMO-2014-3BU
Project:	CQB	**Collection Date/Time:**	08/06/2020 1235
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-23	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.18	1.50	5.00		mg/L	1	08/10/2020 1230	08/11/2020 0314	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	GARNER 635
Project:	CQB	**Collection Date/Time:**	08/06/2020 1523
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-24	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	36.3	1.50	5.00		mg/L	1	08/10/2020 1230	08/11/2020 0332	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	Ramirez
Project:	CQB	**Collection Date/Time:**	08/07/2020 1040
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-25	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.96	1.50	5.00		mg/L	1	08/10/2020 1230	08/11/2020 0350	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	Rogers E
Project:	CQB	**Collection Date/Time:**	08/07/2020 1159
Work Order:	20H0296	**Matrix:**	Ground Water
Lab Sample ID:	20H0296-26	**Order Name:**	CQB #CC18.10080.00

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	6.62	1.50	5.00		mg/L	1	08/10/2020 1230	08/11/2020 0519	JG

Turner Laboratories, Inc.

Date: 08/17/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0296
Date Received: 08/07/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2008135 - E300.0 (2.1)										
Blank (2008135-BLK1)				Prepared & Analyzed: 08/10/2020						
Sulfate	ND	5.00	mg/L							
LCS (2008135-BS1)				Prepared & Analyzed: 08/10/2020						
Sulfate	10	5.00	mg/L	12.50		99	90-110			
LCS Dup (2008135-BSD1)				Prepared & Analyzed: 08/10/2020						
Sulfate	10	5.00	mg/L	12.50		99	90-110	0.06	10	
Matrix Spike (2008135-MS1)		**Source: 20H0296-04**		Prepared: 08/10/2020 Analyzed: 08/13/2020						
Sulfate	30	5.00	mg/L	12.50	20	98	80-120			
Matrix Spike (2008135-MS2)		**Source: 20H0296-13**		Prepared: 08/10/2020 Analyzed: 08/13/2020						
Sulfate	10	5.00	mg/L	12.50	ND	102	80-120			
Matrix Spike (2008135-MS3)		**Source: 20H0296-14**		Prepared: 08/10/2020 Analyzed: 08/13/2020						
Sulfate	10	5.00	mg/L	12.50	ND	101	80-120			
Matrix Spike Dup (2008135-MSD1)		**Source: 20H0296-04**		Prepared: 08/10/2020 Analyzed: 08/13/2020						
Sulfate	30	5.00	mg/L	12.50	20	98	80-120	0.1	10	
Matrix Spike Dup (2008135-MSD2)		**Source: 20H0296-13**		Prepared: 08/10/2020 Analyzed: 08/13/2020						
Sulfate	10	5.00	mg/L	12.50	ND	104	80-120	1	10	
Matrix Spike Dup (2008135-MSD3)		**Source: 20H0296-14**		Prepared: 08/10/2020 Analyzed: 08/13/2020						
Sulfate	10	5.00	mg/L	12.50	ND	102	80-120	0.8	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2040296 DATE 08/07/20 PAGE 1 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	SO4 - 300.0
AWC-05	8/3/20	10:06		GW	1	X
AWC-03	8/3/20	10:35		GW	1	X
AWC-04	8/3/20	11:06		GW	1	X
AWC-02	8/3/20	13:47		GW	1	X
TM-10USBP	8/3/20	14:47		GW	1	X
BMO-2010-3B	8/4/20	10:15		GW	1	X
BMO-2010-3M	8/4/20	13:15		GW	1	X
CQB-WL	8/4/20	16:00		GW	1	X
BMO-2015-2B	8/5/20	08:07		GW	1	X
BMO-2015-2BL	8/5/20	08:50		GW	1	X
BMO-2015-1B	8/5/20	09:57		GW	1	X

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
Printed Name: Jake Alday
Firm: Clear Creek Associates
Date/Time: 8-7-20 14:15

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 08/07/20 1415

TURNAROUND REQUIREMENTS:
_____Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
____Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # ____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers: 20
Temperature: 3.1
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20H0796 DATE 08/07/20 PAGE 2 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX: 504 - 300.0	6010 Ni
BMO-2015-2BL	8/5/20	10:40		GW	1	X	
FB20200805	8/5/20	12:00		GW	1	X	X
EQB20200805	8/5/20	12:00		GW	1	X	X
DUP20200805	8/5/20	12:00		GW	1	X	
BMO-2014-4B	8/5/20	11:43		GW	1	X	
BMO-2014-4BL	8/5/20	12:27		GW	1	X	
OLMOS	8/5/20	12:40		GW	1	X	
BMO-2014-2BL	8/6/20	07:43		GW	1	X	
BMO-2014-2BU	8/6/20	08:24		GW	1	X	
BMO-2014-1BU	8/6/20	09:32		GW	1	X	
BMO-2014-3BL	8/6/20	11:54		GW	1	X	

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 8-7-20 / 14:15

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # ____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 26
Temperature 3.1
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 08/07/20 1415

*LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
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www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20H0296 DATE 08/07/20 PAGE 1 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	SO4 - 300.0
BMG-2014-3BU	8/6/20	12:35		GW	1	X
GARNER 635	8/6/20	15:23		GW	1	X
RAMIREZ	8/7/20	10:40		GW	1	X
ROGERS E	8/7/20	11:59		GW	1	X
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		
				GW		

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 8-7-20 14:15

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 08/7/20 14:15

TURNAROUND REQUIREMENTS:
____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # ____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 20
Temperature 3.1
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☒
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

August 25, 2020

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 20H0471
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 25 sample(s) on 08/14/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Kevin Brim
Project Manager

Turner Laboratories, Inc.

Date: 08/25/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0471
Date Received: 08/14/2020

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20H0471-01	MCCONNELL 459	Ground Water	08/10/2020 1321
20H0471-02	POOL	Ground Water	08/10/2020 1402
20H0471-03	ECHAVE	Ground Water	08/10/2020 1445
20H0471-04	COB MW-3	Ground Water	08/11/2020 0911
20H0471-05	COB MW-2	Ground Water	08/11/2020 0955
20H0471-06	ROGERS 596	Ground Water	08/11/2020 1251
20H0471-07	BOM-2008-4B	Ground Water	08/11/2020 1433
20H0471-08	ZANDER	Ground Water	08/11/2020 1549
20H0471-09	BURKE	Ground Water	08/11/2020 1630
20H0471-10	THOMPSON 341	Ground Water	08/12/2020 0945
20H0471-11	FRANCO 383	Ground Water	08/12/2020 1239
20H0471-12	RUIZ 146	Ground Water	08/12/2020 1417
20H0471-13	PIONKE 517	Ground Water	08/12/2020 1641
20H0471-14	TERRY	Ground Water	08/13/2020 0925
20H0471-15	POWER 639	Ground Water	08/13/2020 1033
20H0471-16	PANAGAKOS	Ground Water	08/13/2020 1137
20H0471-17	DODSON	Ground Water	08/13/2020 1235
20H0471-18	BANKS 986	Ground Water	08/13/2020 1438
20H0471-19	RAY	Ground Water	08/13/2020 1536
20H0471-20	EAST	Ground Water	08/13/2020 1615
20H0471-21	PALMER	Ground Water	08/14/2020 0959
20H0471-22	NESS	Ground Water	08/14/2020 1111
20H0471-23	DUP20200814	Ground Water	08/14/2020 1200
20H0471-24	EQB20200814	Ground Water	08/14/2020 1200
20H0471-25	FB20200814	Ground Water	08/14/2020 1200

Turner Laboratories, Inc.

Date: 08/25/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0471
Date Received: 08/14/2020

Case Narrative

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Turner Laboratories, Inc.

Date: 08/25/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0471
Lab Sample ID: 20H0471-01

Client Sample ID: MCCONNELL 459
Collection Date/Time: 08/10/2020 1321
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	28.6	1.50	5.00		mg/L	1	08/17/2020 1500	08/17/2020 2107	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	POOL
Project:	CQB	**Collection Date/Time:**	08/10/2020 1402
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-02	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	108	7.50	25.0		mg/L	5	08/17/2020 1500	08/17/2020 2125	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	ECHAVE
Project:	CQB	**Collection Date/Time:**	08/10/2020 1445
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-03	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	22.2	1.50	5.00		mg/L	1	08/17/2020 1500	08/17/2020 2143	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	COB MW-3
Project:	CQB	**Collection Date/Time:**	08/11/2020 0911
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-04	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	59.0	7.50	25.0		mg/L	5	08/17/2020 1500	08/17/2020 2200	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	COB MW-2
Project:	CQB	**Collection Date/Time:**	08/11/2020 0955
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-05	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	23.2	1.50	5.00		mg/L	1	08/17/2020 1500	08/17/2020 2218	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	ROGERS 596
Project:	CQB	**Collection Date/Time:**	08/11/2020 1251
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-06	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	666	37.5	125		mg/L	25	08/17/2020 1500	08/17/2020 2236	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BOM-2008-4B
Project:	CQB	**Collection Date/Time:**	08/11/2020 1433
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-07	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	10.7	1.50	5.00		mg/L	1	08/17/2020 1500	08/17/2020 2254	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	ZANDER
Project:	CQB	**Collection Date/Time:**	08/11/2020 1549
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-08	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	6.99	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0023	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BURKE
Project:	CQB	**Collection Date/Time:**	08/11/2020 1630
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-09	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	34.3	7.50	25.0		mg/L	5	08/17/2020 1500	08/18/2020 0041	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	THOMPSON 341
Project:	CQB	**Collection Date/Time:**	08/12/2020 0945
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-10	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	7.85	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0059	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	FRANCO 383
Project:	CQB	**Collection Date/Time:**	08/12/2020 1239
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-11	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	367	15.0	50.0		mg/L	10	08/17/2020 1500	08/18/2020 0116	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	RUIZ 146
Project:	CQB	**Collection Date/Time:**	08/12/2020 1417
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-12	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	117	15.0	50.0		mg/L	10	08/17/2020 1500	08/18/2020 1409	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	PIONKE 517
Project:	CQB	**Collection Date/Time:**	08/12/2020 1641
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-13	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	13.2	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0152	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	TERRY
Project:	CQB	**Collection Date/Time:**	08/13/2020 0925
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-14	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	6.76	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0210	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	POWER 639
Project:	CQB	**Collection Date/Time:**	08/13/2020 1033
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-15	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	173	15.0	50.0		mg/L	10	08/17/2020 1500	08/18/2020 0228	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	PANAGAKOS
Project:	CQB	**Collection Date/Time:**	08/13/2020 1137
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-16	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	231	30.0	100		mg/L	20	08/17/2020 1500	08/18/2020 0245	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	DODSON
Project:	CQB	**Collection Date/Time:**	08/13/2020 1235
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-17	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	45.2	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0303	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	BANKS 986
Project:	CQB	**Collection Date/Time:**	08/13/2020 1438
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-18	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	66.1	7.50	25.0		mg/L	5	08/17/2020 1500	08/18/2020 1426	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	RAY
Project:	CQB	**Collection Date/Time:**	08/13/2020 1536
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-19	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	136	15.0	50.0		mg/L	10	08/17/2020 1500	08/18/2020 0450	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	EAST
Project:	CQB	**Collection Date/Time:**	08/13/2020 1615
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-20	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	12.2	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0508	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	PALMER
Project:	CQB	**Collection Date/Time:**	08/14/2020 0959
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-21	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.3	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0526	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	NESS
Project:	CQB	**Collection Date/Time:**	08/14/2020 1111
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-22	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	46.5	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0544	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	DUP20200814
Project:	CQB	**Collection Date/Time:**	08/14/2020 1200
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-23	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	16.3	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0601	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	EQB20200814
Project:	CQB	**Collection Date/Time:**	08/14/2020 1200
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-24	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0619	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client:	Freeport McMoran - Copper Queen Branch	**Client Sample ID:**	FB20200814
Project:	CQB	**Collection Date/Time:**	08/14/2020 1200
Work Order:	20H0471	**Matrix:**	Ground Water
Lab Sample ID:	20H0471-25	**Order Name:**	CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	ND	1.50	5.00		mg/L	1	08/17/2020 1500	08/18/2020 0637	JG

Turner Laboratories, Inc.

Date: 08/25/2020

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20H0471
Date Received: 08/14/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2008218 - E300.0 (2.1)										
Blank (2008218-BLK1)				Prepared & Analyzed: 08/17/2020						
Sulfate	ND	5.00	mg/L							
LCS (2008218-BS1)				Prepared & Analyzed: 08/17/2020						
Sulfate	12	5.00	mg/L	12.50		99	90-110			
LCS Dup (2008218-BSD1)				Prepared & Analyzed: 08/17/2020						
Sulfate	12	5.00	mg/L	12.50		100	90-110	0.2	10	
Matrix Spike (2008218-MS1)		**Source: 20H0470-01**		Prepared: 08/17/2020 Analyzed: 08/18/2020						
Sulfate	24	5.00	mg/L	12.50	12	98	80-120			
Matrix Spike (2008218-MS2)		**Source: 20H0470-02**		Prepared: 08/17/2020 Analyzed: 08/18/2020						
Sulfate	24	5.00	mg/L	12.50	12	99	80-120			
Matrix Spike (2008218-MS3)		**Source: 20H0470-03**		Prepared: 08/17/2020 Analyzed: 08/18/2020						
Sulfate	28	5.00	mg/L	12.50	15	100	80-120			
Matrix Spike Dup (2008218-MSD1)		**Source: 20H0470-01**		Prepared: 08/17/2020 Analyzed: 08/18/2020						
Sulfate	24	5.00	mg/L	12.50	12	98	80-120	0.4	10	
Matrix Spike Dup (2008218-MSD2)		**Source: 20H0470-02**		Prepared: 08/17/2020 Analyzed: 08/18/2020						
Sulfate	25	5.00	mg/L	12.50	12	100	80-120	0.6	10	
Matrix Spike Dup (2008218-MSD3)		**Source: 20H0470-03**		Prepared: 08/17/2020 Analyzed: 08/18/2020						
Sulfate	28	5.00	mg/L	12.50	15	100	80-120	0.2	10	

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2010471 DATE 8/14/20 PAGE 1 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX
MCCONNELL 459	8/10/20	13:21		GW	1	X	
POOL	8/10/20	14:02		GW	1	X	
ECHAVE	8/10/20	14:45		GW	1	X	
COB MW-3	8/11/20	09:11		GW	1	X	
COB MW-2	8/11/20	09:55		GW	1	X	
ROGERS 596	8/11/20	12:31		GW	1	X	
BMO-2007-4B	8/11/20	14:33		GW	1	X	
ZANDER	8/11/20	15:49		GW	1	X	
BURKE	8/11/20	16:30		GW	1	X	
THOMPSON 342	8/12/20	09:45		GW	1	X	
FRANCO 383	8/12/20	12:39		GW	1	X	

1. RELINQUISHED BY:
Signature
Jake Alden
Printed Name
Clear Creek Associates
Firm
8-14-20 1:15:30
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
8/14/20 1530
Date/Time

TURNAROUND REQUIREMENTS:
____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # ____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 25
Temperature 5.6
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☒
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2014047 1 DATE 8/14/20 PAGE 2 OF 3

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	504 - 300.0
RUIZ 146	8/12/20	14:17		GW	1	X
PIONKE 517	8/12/20	16:41		GW	1	X
TERRY	8/13/20	09:25		GW	1	X
POWER 634	8/13/20	10:33		GW	1	X
PANAG-AKOS	8/13/20	11:37		GW	1	X
DODSON	8/13/20	12:35		GW	1	X
BANKS 986	8/13/20	14:38		GW	1	X
RAY	8/13/20	15:36		GW	1	X
EAST	8/13/20	16:15		GW	1	X
PALMER	8/14/20	09:59		GW	1	X
NESS	8/14/20	11:11		GW	1	X

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

1. RELINQUISHED BY:
Signature
Jake Alden
Printed Name
Clear Creek Associates
Firm
8-14-20 / 15:30
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
TURNER LABORATORIES, INC.
Firm
8/14/20 1530
Date/Time

TURNAROUND REQUIREMENTS:
_____ Standard (approx.10 days)*
____ Next day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. # _____
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 35
Temperature 5.4
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☐
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☑	Appropriate Head Space	☐
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☑	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

TURNER LABORATORIES INC.
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2010471 DATE 8/14/20 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX: 504 - 300.0	Unfiltered
DUP 20200814	8/14/20	12:00		GW	1	X	
EQB 20200814	8/14/20	12:00		GW	1	X	X
FB 20200814	8/14/20	12:00		GW	1	X	X
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
Date/Time: 8-14-20 15:30

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: TURNER LABORATORIES, INC.
Firm
Date/Time: 8/14/20 1530

TURNAROUND REQUIREMENTS:
____Standard (approx.10 days)*
____Next day ____2 Day ____5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ____ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 25
Temperature 5.4
☒ Wet Ice ☐ Blue Ice

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☑
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☑
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☑

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

December 01, 2020

Chris Sherman
Freeport McMoran - Copper Queen Branch
36 W Highway 92
Bisbee, AZ 85603-1047

TEL (520) 432-6206
FAX

Work Order No.: 20K0556
Order Name: CQB

RE: CQB

Dear Chris Sherman,

Turner Laboratories, Inc. received 1 sample(s) on 11/23/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066



Elizabeth Kasik
Laboratory Director

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20K0556
Date Received: 11/23/2020

Order: CQB

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20K0556-01	NWC-04	Ground Water	11/23/2020 1039

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20K0556
Date Received: 11/23/2020

Case Narrative

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND Not Detected at or above the PQL

PQL Practical Quantitation Limit

DF Dilution Factor

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20K0556
Lab Sample ID: 20K0556-01

Client Sample ID: NWC-04
Collection Date/Time: 11/23/2020 1039
Matrix: Ground Water
Order Name: CQB

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Anions by Ion Chromatography-E300.0 (2.1)									
Sulfate	182	21.2	50.0		mg/L	10	11/23/2020 1230	11/26/2020 0002	JG

Client: Freeport McMoran - Copper Queen Branch
Project: CQB
Work Order: 20K0556
Date Received: 11/23/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2011286 - E300.0 (2.1)										
Blank (2011286-BLK1)				Prepared & Analyzed: 11/23/2020						
Sulfate	ND	5.00	mg/L							
LCS (2011286-BS1)				Prepared & Analyzed: 11/23/2020						
Sulfate	13	5.00	mg/L	12.50		107	90-110			
LCS Dup (2011286-BSD1)				Prepared & Analyzed: 11/23/2020						
Sulfate	13	5.00	mg/L	12.50		107	90-110	0.2	10	
Matrix Spike (2011286-MS1)		**Source: 20K0560-01**		Prepared: 11/23/2020 Analyzed: 11/25/2020						
Sulfate	72	25.0	mg/L	62.50	ND	115	80-120			
Matrix Spike Dup (2011286-MSD1)		**Source: 20K0560-01**		Prepared: 11/23/2020 Analyzed: 11/25/2020						
Sulfate	72	25.0	mg/L	62.50	ND	116	80-120	0.2	10	

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20K0556 DATE 11-23-20 PAGE 1 OF 1

PROJECT NAME CQB Quarterly # CC18.10080.00

CONTACT NAME : Chris Sherman

COMPANY NAME : Freeport McMoRan CQB

ADDRESS : 36 Highway 92

CITY Bisbee STATE AZ ZIP CODE 85603

PHONE 520-508-7063 FAX 520-432-1395

SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	300.0 - 504	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX
MW-04	11-23-20	10:39		GW	1	X	
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			
				GW			

1. RELINQUISHED BY:
Signature
Printed Name: Clear Creek Associates
Firm
11-23-20 13:30
Date/Time

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
X Standard (approx.10 days)*
___Next day ___2 Day ___5 Day*
___ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP,MS,MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data)
Add 10% to invoice

INVOICE INFORMATION:
Account X Y ___ N
P.O. #
Bill to: CQB

SAMPLE RECEIPT:
Total Containers 1
Temperature 4.1
☒ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name: Matthew Howard
Firm: TURNER LABORATORIES, INC.
11/23/20 13:30
Date/Time

***LEGEND**
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis:	☐ Yes ☐ No	Custody Seals	☐	Preservation Confirmation	☒
ADEQ Forms:	☐ Yes ☐ No	Container Intact	☒	Appropriate Head Space	☒
Mail ADEQ Forms:	☐ Yes ☐ No	COC/Labels Agree	☒	Received Within Hold Time	☒

All samples filtered with a 0.45µm filter, unless noted.
Copy results to Ben Daigneau & Fernando Alday.

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www.svl.net

Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0B0173**
Bisbee, AZ 85603	Reported: 20-Feb-20 14:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
BMO-2008-6M	X0B0173-01	Water	03-Feb-20 09:25	CRS	12-Feb-2020	
BMO-2008-6B	X0B0173-02	Water	03-Feb-20 10:20	CRS	12-Feb-2020	
BMO-2008-11G	X0B0173-03	Water	04-Feb-20 07:20	CRS	12-Feb-2020	
BMO-2012-1M	X0B0173-04	Water	04-Feb-20 12:40	CRS	12-Feb-2020	
BMO-2008-1G	X0B0173-05	Water	05-Feb-20 10:00	CRS	12-Feb-2020	
BMO-2008-5M	X0B0173-06	Water	06-Feb-20 07:55	CRS	12-Feb-2020	
BMO-2008-5B	X0B0173-07	Water	06-Feb-20 08:55	CRS	12-Feb-2020	
BMO-2008-3B	X0B0173-08	Water	06-Feb-20 10:20	CRS	12-Feb-2020	
TM-7	X0B0173-09	Water	10-Feb-20 10:06	CRS	12-Feb-2020	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2008-6M**
SVL Sample ID: **X0B0173-01 (Water)**

Sampled: 03-Feb-20 09:25
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	216	mg/L	3.00	1.80	10	X007139	RS	02/13/20 09:59	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dianne Gardner
Project Manager

One Government Gulch - PO Box 929
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(208) 784-1258
www.svl.net

Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2008-6B**
SVL Sample ID: **X0B0173-02 (Water)**

Sampled: 03-Feb-20 10:20
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	8.60	mg/L	0.30	0.18		X007139	RS	02/13/20 10:18	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dianne Gardner
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2008-11G**
SVL Sample ID: **X0B0173-03 (Water)**

Sampled: 04-Feb-20 07:20
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	13.3	mg/L	3.00	1.80	10	X007139	RS	02/13/20 12:09	D

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Dianne Gardner
Project Manager

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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2012-1M**
SVL Sample ID: **X0B0173-04 (Water)**

Sampled: 04-Feb-20 12:40
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	223	mg/L	3.00	1.80	10	X007139	RS	02/13/20 13:13	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dianne Gardner
Project Manager

One Government Gulch - PO Box 929
Kellogg, ID 83837-0929
(208) 784-1258
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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0B0173**
Bisbee, AZ 85603	Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2008-1G**
SVL Sample ID: **X0B0173-05 (Water)**

Sampled: 05-Feb-20 10:00
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	105	mg/L	3.00	1.80	10	X007139	RS	02/13/20 13:31	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dianne Gardner
Project Manager

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Kellogg, ID 83837-0929
(208) 784-1258
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2008-5M**
SVL Sample ID: **X0B0173-06 (Water)**

Sampled: 06-Feb-20 07:55
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	169	mg/L	3.00	1.80	10	X007139	RS	02/13/20 13:50	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Dianne Gardner
Project Manager

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(208) 784-1258
www.svl.net

Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2008-5B**
SVL Sample ID: **X0B0173-07 (Water)**

Sampled: 06-Feb-20 08:55
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	258	mg/L	3.00	1.80	10	X007139	RS	02/13/20 14:08	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



Dianne Gardner
Project Manager

One Government Gulch - PO Box 929
Kellogg, ID 83837-0929
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **BMO-2008-3B**
SVL Sample ID: **X0B0173-08 (Water)**

Sampled: 06-Feb-20 10:20
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	150	mg/L	3.00	1.80	10	X007139	RS	02/13/20 14:27	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dianne Gardner
Project Manager

One Government Gulch - PO Box 929
Kellogg, ID 83837-0929
(208) 784-1258
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Client Sample ID: **TM-7**
SVL Sample ID: **X0B0173-09 (Water)**

Sampled: 10-Feb-20 10:06
Received: 12-Feb-20
Sampled By: CRS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	117	mg/L	3.00	1.80	10	X007139	RS	02/13/20 14:45	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dianne Gardner
Project Manager

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Kellogg, ID 83837-0929
(208) 784-1258
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Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0B0173**
Reported: 20-Feb-20 14:25

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X007139	13-Feb-20	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.8	10.0	108	90 - 110	X007139	13-Feb-20	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Recovery	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	19.6	8.60	10.0	110	90 - 110	X007139	13-Feb-20	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	% Rec.	RPD	RPD Limit	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography											
EPA 300.0	Sulfate as SO4	mg/L	19.6	19.6	10.0	109	0.1	20	X007139	13-Feb-20	

Notes and Definitions

D	The reported value is from a dilution.
D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

One Government Gulch - PO Box 929
Kellogg, ID 83837-0929
(208) 784-1258
www.svl.net

Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0G0616**
Bisbee, AZ 85603	Reported: 07-Aug-20 13:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
BMO-2008-9M	X0G0616-01	Ground Water	20-Jul-20 08:20	CLS	30-Jul-2020	
BMO-2010-1M	X0G0616-02	Ground Water	20-Jul-20 13:50	CLS	30-Jul-2020	
BMO-2012-1M	X0G0616-03	Ground Water	21-Jul-20 07:25	CLS	30-Jul-2020	
BMO-2008-6M	X0G0616-04	Ground Water	22-Jul-20 06:40	CLS	30-Jul-2020	
BMO-2008-6B	X0G0616-05	Ground Water	22-Jul-20 07:35	CLS	30-Jul-2020	
BMO-2008-8M	X0G0616-06	Ground Water	23-Jul-20 07:40	CLS	30-Jul-2020	
BMO-2008-7M	X0G0616-07	Ground Water	23-Jul-20 09:05	CLS	30-Jul-2020	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
This report shall not be reproduced except in full, without the written approval of SVL Analytical, Inc.

One Government Gulch - PO Box 929
Kellogg, ID 83837-0929
(208) 784-1258
www.svl.net

Freeport McMoRan - Bisbee
36 West Hwy 92
Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0G0616**
Reported: 07-Aug-20 13:21

Client Sample ID: **BMO-2008-9M**
SVL Sample ID: **X0G0616-01 (Ground Water)**

Sampled: 20-Jul-20 08:20
Received: 30-Jul-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	97.0	mg/L	3.00	1.80	10	X031208	RS	07/30/20 22:21	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0G0616**
Reported: 07-Aug-20 13:21

Client Sample ID: **BMO-2010-1M**
SVL Sample ID: **X0G0616-02 (Ground Water)**

Sampled: 20-Jul-20 13:50
Received: 30-Jul-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	187	mg/L	3.00	1.80	10	X031208	RS	07/30/20 22:38	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0G0616**
Reported: 07-Aug-20 13:21

Client Sample ID: **BMO-2012-1M**
SVL Sample ID: **X0G0616-03 (Ground Water)**

Sampled: 21-Jul-20 07:25
Received: 30-Jul-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	217	mg/L	3.00	1.80	10	X031208	RS	07/30/20 22:56	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0G0616**
Bisbee, AZ 85603	Reported: 07-Aug-20 13:21

Client Sample ID: **BMO-2008-6M**
SVL Sample ID: **X0G0616-04 (Ground Water)**

Sampled: 22-Jul-20 06:40
Received: 30-Jul-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	206	mg/L	3.00	1.80	10	X031208	RS	07/30/20 23:13	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Bisbee, AZ 85603

Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0G0616**
Reported: 07-Aug-20 13:21

Client Sample ID: **BMO-2008-6B**
SVL Sample ID: **X0G0616-05 (Ground Water)**

Sampled: 22-Jul-20 07:35
Received: 30-Jul-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	6.88	mg/L	0.30	0.18		X031208	RS	07/30/20 23:31	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0G0616**
Bisbee, AZ 85603	Reported: 07-Aug-20 13:21

Client Sample ID: **BMO-2008-8M**
SVL Sample ID: **X0G0616-06 (Ground Water)**

Sampled: 23-Jul-20 07:40
Received: 30-Jul-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	74.3	mg/L	3.00	1.80	10	X031208	RS	07/31/20 00:23	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0G0616**
Bisbee, AZ 85603	Reported: 07-Aug-20 13:21

Client Sample ID: **BMO-2008-7M**
SVL Sample ID: **X0G0616-07 (Ground Water)**

Sampled: 23-Jul-20 09:05
Received: 30-Jul-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	37.2	mg/L	0.30	0.18		X031208	RS	07/31/20 01:16	

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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0G0616**
Reported: 07-Aug-20 13:21

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X031208	30-Jul-20	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.3	10.0	103	90 - 110	X031208	30-Jul-20	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	17.2	6.88	10.0	103	90 - 110	X031208 - X0G0616-05	30-Jul-20	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	17.4	17.2	10.0	1.4	20	105	X031208 - X0G0616-05	

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Freeport McMoRan - Bisbee
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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
BMO-2008-5M	X0H0366-01	Ground Water	11-Aug-20 06:55	CLS	19-Aug-2020	
BMO-2008-5B	X0H0366-02	Ground Water	11-Aug-20 07:40	CLS	19-Aug-2020	
BMO-2008-3B	X0H0366-03	Ground Water	12-Aug-20 06:20	CLS	19-Aug-2020	
BMO-2008-1G	X0H0366-04	Ground Water	12-Aug-20 10:00	CLS	19-Aug-2020	
BMO-2008-11G	X0H0366-05	Ground Water	13-Aug-20 07:30	CLS	19-Aug-2020	
Dup-081320	X0H0366-06	Ground Water	13-Aug-20 07:30	CLS	19-Aug-2020	
TM-19A	X0H0366-07	Ground Water	17-Aug-20 06:25	CLS	19-Aug-2020	
Hoban	X0H0366-08	Ground Water	17-Aug-20 07:30	CLS	19-Aug-2020	
Cooper C	X0H0366-09	Ground Water	17-Aug-20 09:00	CLS	19-Aug-2020	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **BMO-2008-5M**
SVL Sample ID: **X0H0366-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Aug-20 06:55
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	156	mg/L	3.00	1.80	10	X035019	RS	08/27/20 15:40	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **BMO-2008-5B**
SVL Sample ID: **X0H0366-02 (Ground Water)**

Sampled: 11-Aug-20 07:40
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	240	mg/L	3.00	1.80	10	X035019	RS	08/27/20 15:58	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **BMO-2008-3B**
SVL Sample ID: **X0H0366-03 (Ground Water)**

Sampled: 12-Aug-20 06:20
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	132	mg/L	3.00	1.80	10	X035019	RS	08/27/20 16:15	D2

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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **BMO-2008-1G**
SVL Sample ID: **X0H0366-04 (Ground Water)**

Sampled: 12-Aug-20 10:00
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	93.2	mg/L	3.00	1.80	10	X035019	RS	08/27/20 16:33	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **BMO-2008-11G**
SVL Sample ID: **X0H0366-05 (Ground Water)**

Sampled: 13-Aug-20 07:30
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	11.9	mg/L	0.30	0.18		X035019	RS	08/27/20 16:50	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0H0366**
Bisbee, AZ 85603	Reported: 31-Aug-20 14:28

Client Sample ID: **Dup-081320**
SVL Sample ID: **X0H0366-06 (Ground Water)**

Sampled: 13-Aug-20 07:30
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	8.16	mg/L	0.30	0.18		X035019	RS	08/27/20 17:43	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **TM-19A**
SVL Sample ID: **X0H0366-07 (Ground Water)**

Sampled: 17-Aug-20 06:25
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	59.2	mg/L	3.00	1.80	10	X035019	RS	08/27/20 18:36	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **Hoban**
SVL Sample ID: **X0H0366-08 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 17-Aug-20 07:30
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	637	mg/L	7.50	4.50	25	X035019	RS	08/27/20 18:53	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Client Sample ID: **Cooper C**
SVL Sample ID: **X0H0366-09 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 17-Aug-20 09:00
Received: 19-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	599	mg/L	7.50	4.50	25	X035019	RS	08/27/20 19:11	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.



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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0366**
Reported: 31-Aug-20 14:28

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X035019	27-Aug-20	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	9.77	10.0	97.7	90 - 110	X035019	27-Aug-20	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	21.7	11.9	10.0	98.2	90 - 110	X035019 - X0H0366-05	27-Aug-20	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	21.9	21.7	10.0	0.9	20	100	X035019 - X0H0366-05	

Notes and Definitions

D2	Sample required dilution due to high concentration of target analyte.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0H0576**
Bisbee, AZ 85603	Reported: 10-Sep-20 15:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received	Notes
TM-15	X0H0576-01	Ground Water	24-Aug-20 06:45	CLS	27-Aug-2020	
FB-082420	X0H0576-02	Ground Water	24-Aug-20 07:00	CLS	27-Aug-2020	
EQB-082420	X0H0576-03	Ground Water	24-Aug-20 07:15	CLS	27-Aug-2020	

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested. Non-Detects are reported at the MDL.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
Analyses were performed in accordance with SVL standard operating procedures and calibrations were performed and met SVL internal QC criteria.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.
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Freeport McMoRan - Bisbee
36 West Hwy 92
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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0576**
Reported: 10-Sep-20 15:20

Client Sample ID: **TM-15**
SVL Sample ID: **X0H0576-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 24-Aug-20 06:45
Received: 27-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	14.9	mg/L	0.30	0.18		X036026	RS	09/03/20 11:22	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Dave Tryon
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Freeport McMoRan - Bisbee	**Project Name: Copper Queen Branch Sulfate Mitigation Order**
36 West Hwy 92	Work Order: **X0H0576**
Bisbee, AZ 85603	Reported: 10-Sep-20 15:20

Client Sample ID: **FB-082420**
SVL Sample ID: **X0H0576-02 (Ground Water)**

Sampled: 24-Aug-20 07:00
Received: 27-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	0.56	mg/L	0.30	0.18		X036026	RS	09/03/20 11:39	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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Freeport McMoRan - Bisbee
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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0576**
Reported: 10-Sep-20 15:20

Client Sample ID: **EQB-082420**
SVL Sample ID: **X0H0576-03 (Ground Water)**

Sampled: 24-Aug-20 07:15
Received: 27-Aug-20
Sampled By: CLS

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	**Sulfate as SO4**	0.59	mg/L	0.30	0.18		X036026	RS	09/03/20 11:57	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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Freeport McMoRan - Bisbee
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Project Name: Copper Queen Branch Sulfate Mitigation Order
Work Order: **X0H0576**
Reported: 10-Sep-20 15:20

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography								
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.18	0.30	X036026	03-Sep-20	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Filtered Anions by Ion Chromatography									
EPA 300.0	Sulfate as SO4	mg/L	10.4	10.0	104	90 - 110	X036026	03-Sep-20	

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch and Source ID	Analyzed	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	11.6	1.49	10.0	101	90 - 110	X036026 - X0H0606-01	03-Sep-20	

Quality Control - MATRIX SPIKE DUPLICATE Data

Method	Analyte	Units	MSD Result	Spike Result	Spike Level	RPD	RPD Limit	% Recovery	Batch and Source ID	Notes
Filtered Anions by Ion Chromatography										
EPA 300.0	Sulfate as SO4	mg/L	11.6	11.6	10.0	0.3	20	102	X036026 - X0H0606-01	

Notes and Definitions

LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
0.30R>S	% recovery not applicable; spike level is less than 30% of the sample concentration
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

APPENDIX C

DATA VERIFICATION REPORT

APPENDIX C

DATA VERIFICATION REPORT

ANNUAL GROUNDWATER MONITORING REPORT FOR 2020

Prepared for:

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March 15, 2021

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1. INTRODUCTION

This report summarizes the data verification review of field measurements, groundwater sampling, and laboratory analyses conducted during 2020 by Clear Creek Associates and Freeport Minerals Corporation, Copper Queen Branch (CQB) pursuant to Mitigation Order on Consent Docket No. P-121-07 (ADEQ, 2007). Clear Creek Associates and CQB collected groundwater samples according to the groundwater monitoring program described by the Mitigation Plan (Clear Creek Associates, 2015) and subsequent modifications recommended by the 2018 annual performance review (e.g. Clear Creek Associates, 2019). Analytical results for groundwater samples collected for this project during 2020 were reported to Clear Creek Associates by SVL Analytical, Inc. (SVL) of Kellogg, Idaho and Turner Laboratories, Inc. (Turner) of Tucson, Arizona. Clear Creek Associates compiled and evaluated the analytical results for preparation of this report.

Quality assurance (QA) and quality control (QC) procedures for groundwater monitoring are specified in the *Quality Assurance Project Plan for Aquifer Characterization Plan* (QAPP) (Appendix F of Hydro Geo Chem, Inc., 2008), including water level measurement, groundwater sampling, chain-of-custody (COC) documentation, laboratory analysis, and reporting. This report reviews field sampling procedures for samples collected by Clear Creek Associates and CQB. Additionally, sample handling and laboratory QA/QC data are evaluated according to the data quality indicators (DQIs) in the QAPP.

The laboratory reports for the 2020 groundwater samples are in Appendix B of this annual report, including COC forms, laboratory correspondence, QC summaries, data qualifiers, and internal QA/QC tests performed by the laboratory. Based on the results of laboratory control samples, matrix spike/recovery and blank spikes, neither SVL nor Turner advised any modifications regarding the usability and data validation status of the laboratory results. The analytical results for 139 samples collected by Clear Creek Associates and CQB in 2020 are contained in 12 reports with the SVL and Turner laboratory identification numbers listed in the following tables.

LAB ID	Q1 WELLS REPORTED
Number of wells sampled: 44 Number of well samples collected (including duplicates and multiple samples from one well): 47 Number of duplicate samples collected: 3 Number of field and equipment blanks collected: 6 Total number of samples collected: 53	
20A0308	BMO-2010-3B, FB20200106, EB20200106, BMO-2010-3M, BMO-2014-1BL, BMO-2014-1BU, BMO-2014-2BL, BMO-2014-2BU, BMO-2014-3BL, BMO-2014-3BU, BMO-2014-4B, BMO-2014-4BL BMO-2015-1B, BMO-2015-1BL, BMO-2015-2B, BMO-2015-2BL, COB WL, TM-10 USBP, DUP20200106
20A0473	AWC-05, AWC-03, AWC-04, AWC-02, COB MW-2, PANAGAKOS, DUP20201401, COB MW-1B, FB20201501, EB20201501, POWER 639, DODSON, NWC-04, NWC-06, NWC-02, RUIZ, KEEFER
20A0582	ROGERS E, COOPER, FB20200121, EQB20200121, DUP20200121, ROGERS 596, SCHWARTZ, WEED
X0B0173	BMO-2008-6M, BMO-2008-6B, BMO-2008-11G, BMO-2012-1M, BMO-2008-1G, BMO-2008-5M, BMO-2008-5B, BMO-2008-3B, TM-7
LAB ID	**Q2 WELLS REPORTED**
Number of wells sampled: 1 Number of well samples collected (including duplicates and multiple samples from one well): 2 Number of duplicate samples collected: 1 Number of field and equipment blanks collected: 0 Total number of samples collected: 2	
20E0248	NWC-04, 20201105 DUP
LAB ID	**Q3 WELLS REPORTED**
Number of wells sampled: 71 Number of well samples collected (including duplicates and multiple samples from one well): 75 Number of duplicate samples collected: 4 Number of field and equipment blanks collected: 8 Total number of samples collected: 83	
20G0623	HOWARD 312, WEED, NWC-04, NWC-02, NWC-06, MOORE, KEEFER, SCHWARTZ, ANDERSON 458, WEISKOPF 897, DUP20200721, FB20200721, EQB20200721
20H0296	AWC-05, AWC-03, AWC-04, AWC-02, TM-10 USBP, BMO-2010-3B, BMO-2010-3M, COB WL, BMO-2015-2B, BMO-2015-2BL, BMO-2015-1B, BMO-2015-1BL, FB20200805, EQB20200805, DUP20200805, BMO-2014-4B, BMO-2014-4BL, OLMOS, BMO-2014-2BL, BMO-2014-2BU, BMO-2014-1BU, BMO-2014-3BL, BMO-2014-3BU, GARNER 635, RAMIREZ, ROGERS E
20H0471	MCCONNELL 459, POOL, ECHAVE, COB MW-3, COB MW-2, ROGERS 596, BMO-2008-4B, ZANDER, BURKE, THOMPSON 341, FRANCO 383, RUIZ 146, PIONKE 517, TERRY, POWER 639, PANAGAKOS, DODSON, BANKS 986, RAY, EAST, PALMER, NESS, DUP20200814, EQB20200814, FB20200814
X0G0616	BMO-2008-9M, BMO-2010-1M, BMO-2012-1M, BMO-2008-6M, BMO-2008-6B, BMO-2008-8M, BMO-2008-7M
X0H0366	BMO-2008-5M, BMO-2008-5B, BMO-2008-3B, BMO-2008-1G, BMO-2008-11G, DUP-081320, TM-19A, HOBAN, COOPER C
X0H0576	TM-15, FB-082420, EQB-082420
LAB ID	**Q4 WELLS REPORTED**
Number of wells sampled: 1 Number of well samples collected (including duplicates and multiple samples from one well): 1 Number of duplicate samples collected: 0 Number of field and equipment blanks collected: 0 Total number of samples collected: 1	
20K0556	NWC-04

2. OPERATIONS

Field operations for this project consisted of the following for all wells sampled by Clear Creek Associates and CQB:

- Static water level measurement, if possible,
- Well purging, if needed,
- Collection of water quality field parameters (pH in standard units [SU], specific conductance [SC] in microSiemens per centimeter [µS/cm], and temperature in degrees Celsius [°C]),
- Collection of groundwater samples for water quality analysis,
- Collection of groundwater QA and QC samples per requirements in the QAPP, and
- Equipment decontamination.

Field notebook entries and sampling forms were evaluated for quality assurance and met the documentation requirements stated in the QAPP.

2.1 Water Level Monitoring

Static water level measurements were attempted at each well that was sampled (where there are no known obstructions or lack of wellhead access to prevent static water level measurement) and at all wells where water level only monitoring was conducted. Water levels at pumping wells were measured while the well pump was off whenever possible. Because it is not always possible to ascertain how long the pump had been off prior to the water level measurement, some water levels may be affected by residual drawdown. If a well is pumping prior during the water level measurement, the pumping status of the well was noted on the field sheet. Before measuring the water level at each well, the battery on the water level indicator was checked and the sensitivity level was adjusted, if necessary. Depth to water below a surveyed measuring point was measured to the nearest 0.01 feet, and verified by measuring the depth to water multiple times in order to obtain a consistent reading and accurate measurement.

2.2 Groundwater Sampling

Groundwater samples were collected from operable and accessible wells designated for water quality sampling under the Mitigation Plan (Clear Creek Associates, 2015). All wells sampled contained dedicated submersible pumps. Location information for the wells sampled for water quality and water level measurements is listed in Table 4 of the main text.

2.2.1 Pre-Sampling Field Activities

The pH[1] and SC[2] multipurpose meters were calibrated on each day of sampling. In addition, the water level indicator was checked for a signal, which indicates a working meter and sufficient battery strength. On each day where sampling extended for more than half a day, a mid-day calibration check was performed on the pH and SC meters. In addition to calibrating the instruments daily, measures were taken to 1) properly decontaminate field equipment, 2) ensure the appropriate storage and transport temperature of the samples, and 3) document activities related to the collection of groundwater samples as part of this project. These objectives were met by 1) replenishing or obtaining supplies of distilled water and ice daily, 2) use of the proper preservative and sample collection containers, 3) properly packing the samples on ice during field activities, 4) using distilled water to properly decontaminate field equipment prior to the start of sampling each day and after sampling at each well, and 5) obtaining the appropriate field notebook in order to document field activities related to the groundwater monitoring program.

2.2.2 Well Purging, Field Measurements, and Sample Collection

Three wetted casing volumes were purged from each well prior to sampling, when possible. However, when three casing volumes could not be purged, this information was noted on the groundwater sampling form (Appendix A of the annual report). Purge water was discharged to the ground surface.

Field measurements of pH, temperature, and specific conductance were collected at varying intervals during well purging at each well where a water quality sample was collected. If possible, field parameters were monitored until the measurements stabilized within 0.3 standard units for pH, 2 °C for temperature and 100 µS/cm for specific conductance as described in Section 4.2.1.2 of the QAPP.

In 2020, 125 groundwater samples (duplicate and multiple samples included) were collected for analysis from 75 wells. Groundwater samples were collected by filtering the sample into a 250-milliliter bottle using a clean filtration apparatus and one disposable 0.45-micron filter. Samples were labelled with the site name, date, time collected, sampler's initials, and the required analysis on the bottle. All bottles were provided by the laboratories and maintained in a clean and secure work area until used in the field.

[1] Field pH meters were calibrated using a three point calibration.
[2] Field SC meters were calibrated using standard stock solutions.

2.2.3 Post-Sampling Field Activities

Post-sampling field activities consisted of equipment decontamination, sample storage, and sample shipping. Field equipment that came into contact with the sample was decontaminated using Alconox® detergent and distilled water. After washing, the equipment was rinsed with distilled water. After sample collection, samples from each well were placed into a plastic bag to prevent the label from becoming illegible and stored on ice until they could be packed securely for shipping to the laboratory. The chain of custody was filled out prior to shipping or delivery to the laboratory, signed by the sampler, and then placed in a plastic bag along with the samples.

3. SAMPLE HANDLING

All 2020 samples collected by Clear Creek Associates and CQB were shipped to SVL or hand-delivered to Turner for analysis. COC documentation accompanied all samples submitted and included the sample name, collection date, and time. Laboratory reports include the date the samples were received by SVL or Turner. As noted on the laboratory reports from SVL and Turner, all of the sample bottles were received intact, properly preserved, and in good condition. The samples were shipped to SVL or delivered to Turner within 1 to 10 days of sample collection. All shipped samples were sent overnight delivery. The samples were collected, shipped or delivered, and received by SVL or Turner within the established holding time for dissolved sulfate analysis in accordance with United States Environmental Protection Agency (EPA) Method 300.0.

4. LABORATORY QUALITY CONTROL

As specified in the QAPP, laboratory QC was maintained for all analyses through the use of licensed laboratories, approved analytical methods, QC measurements, appropriate turn-around-time for analysis (timeliness), method detection limits (MDLs), reporting limits (RLs), and practical quantitation limits (PQLs). Each of these controls is discussed in the following subsections.

The review of laboratory QC included a review to identify any qualified data and an assessment to determine their significance. Additionally, the laboratory QC summaries were reviewed to verify that results met QA criteria.

4.1 Licensure

SVL is licensed with the Arizona Department of Health Services (license number AZ0538) and is accredited in accordance with the National Environmental Laboratory Accreditation Conference. Turner is also licensed with the Arizona Department of Health Services (license number AZ0066).

4.2 Analytical Method

EPA method 300.0 was used for sulfate analysis during this monitoring period.

4.3 Method Detection Limit, Reporting Limit, and Practical Quantitation Limit

The MDLs, RLs, and PQLs change based on dilution of the samples. The MDLs, RLs, and PQLs of an undiluted sample as reported by SVL and Turner are shown in the following table:

Lab	Method	MDL (mg/L)	RL/PQL (mg/L)	Target MDL[1] (mg/L)
SVL	EPA 300.0	0.18	0.30	10
Turner	EPA 300.0	1.5 - 2.12	5.0	10

mg/L = milligrams per liter
[1] Target MDL from Table F.2 of QAPP

The SVL and Turner-reported MDLs are equal to or less than the target MDL identified in the QAPP. The PQL is the amount of a constituent that can be consistently quantified with acceptable

precision and accuracy (QAPP Section 3.3.7). The PQL for an undiluted sample reported by Turner is 5.0. The RL is used by SVL and is the smallest concentration the laboratory will report for a constituent. The RL of an undiluted sample reported by SVL is 0.30 mg/L. The Turner PQL and SVL RL are lower than the target MDL of 10 mg/L from the QAPP. Reporting limit samples with higher range concentrations of sulfate required dilution, which increases the PQL and RL. In all cases of an RL or PQL greater than 10 mg/L sulfate, the laboratory analysis yielded a detected quantity. Thus, detection sensitivity of the analyses is adequate to be consistent with the target MDL.

4.4 Timeliness

All samples submitted for sulfate analysis were analyzed within the twenty-eight day holding time specified by EPA Method 300.0.

4.5 Quality Control Measurements

The following QC samples were prepared and analyzed:

- Calibration blanks and calibration verification standards
- Analytical spike and analytical spike duplicate samples
- Laboratory control samples
- Laboratory duplicate samples
- Field blank samples

4.5.1 Calibration Blanks and Calibration Verification Standards

Results from the analyses of the initial calibration blanks and initial calibration verification standards conducted by EPA Method 300.0 were reviewed. The results of each initial calibration blank analyzed showed results below the RL or PQL. All analytical results for the initial calibration verification standards and laboratory-fortified blanks showed percent recoveries that were within the acceptance criteria specified by the SVL and Turner QA Plans.

4.5.2 Analytical Spike

Analytical spike and spike duplicate samples were analyzed by the laboratories for 10 percent of the samples analyzed. The spike samples were prepared by adding a sulfate spike to one randomly chosen sample out of every ten samples analyzed.

Spike recoveries for all SVL analyses were between 90 and 110 percent. Flags are used in instances in which analytical spike recoveries were high ("M1"), low ("M2"), or unusable ("M3" and "M4"). The "M1", "M2", "M3", and "M4" flags were not used in an SVL report in 2020.

Spike recoveries for all samples analyzed by Turner were between 80 and 120 percent. There were no "M1", M2", "M3", or "M4" flags reported by Turner in 2020.

4.5.3 Laboratory Duplicate Samples

Analyses of laboratory duplicate samples were reviewed as part of this data verification report. In all cases where the relative percent difference (RPD) could be calculated for laboratory duplicate samples, the RPD was within 20 percent, which is the tolerance range set by the laboratories. The results met QA criteria and demonstrate an appropriate level of precision in laboratory analysis of these samples. Field duplicate samples are discussed in Section 5.1.

4.5.4 Sample Re-Analysis

During 2020, no samples required reanalysis by SVL or Turner.

4.5.5 Blank Samples

Field and equipment blank samples were collected in accordance with procedures described in Section 4.2.1.5 of the QAPP. Field and equipment blank samples were collected and submitted along with other samples to evaluate the potential for contaminant introduction under field conditions. Section 4.2.1.5 of the QAPP requires the collection of a minimum of one field blank and one equipment blank sample for every twenty samples.

During 2020, 14 blank samples were collected, including seven field blanks (FB20200106, FB20201501, FB20200121, FB20200721, FB20200805, FB20200814, and FB-082420) and seven field equipment blanks (EB20200106, EB20201501, EQB20200121, EQB20200721, EQB20200805, EQB20200814, and EQB-082420). The collection of seven field blanks and seven

equipment blanks meets the requirement for the collection of one of each type of blank for every 20 samples for 2020.

Two blank samples collected in 2020 had sulfate concentrations above the SVL RL of 0.30 mg/L. FB-082420 and EQB-082420 had sulfate concentrations of 0.56 and 0.59 mg/L, respectively. The two blanks with detected concentrations of sulfate were reported on laboratory report X0H0576 with one other sample (TM-15) which was within historic ranges. The detection of sulfate in the blank samples did not affect the usability of laboratory data in 2020 because of the low level of the detection relative to target MDL. In addition, the detection in the blank samples would only affect one sample because other blanks did not have detections of sulfate above RLs or PQLs.

5. DATA QUALITY INDICATORS

The QAPP provides several DQIs for assessing the overall quality of the data. These DQIs include the following:

- Precision
- Bias
- Accuracy
- Representativeness
- Comparability
- Completeness
- Sensitivity

Each of these DQIs is discussed below in relation to the groundwater sampling and analysis conducted in 2020.

5.1 Precision

Precision indicates how well a measurement can be reproduced. Precision is quantified by calculating the RPD between sulfate analyses of duplicate samples and by measuring the water level multiple times before recording the result.

For the QA/QC of analytical data, precision was quantified by calculating the RPDs between duplicates among the following groups of duplicate samples:

- Laboratory duplicate samples
- Field duplicate samples

As discussed in Section 4.5.3 there were no exceedances of RPD QA criteria for any laboratory duplicates. During this monitoring period, eight field-filtered duplicate samples (DUP20200106, DUP20201401, DUP20200121, 20201105 DUP, DUP20200721, DUP20200805, DUP20200814, and DUP-081320) were collected for analysis. The collection of eight duplicate samples meets the QA/QC method and quantity goal stated in Section 4.2.1.5 of the QAPP.

Sulfate results for the duplicate samples collected are provided in the table below. The range of RPD values was between 0.0 and 37.29 percent. Sample DUP-081320 reported in SVL report X0H0366 did not meet the 20 percent acceptance criteria for field duplicates, as stated in Section

3.3.1 of the QAPP. The DQI for precision was met for samples collected in 2020 except for the BMO-2008-11G sample and the associated duplicate. The DQI for precision was met for other samples analyzed in 2020 because the results were within historic ranges and the other duplicates had RPDs of less than 20 percent.

Turner/SVL Project No.	Well ID	Duplicate ID	Sample (mg/l)	Duplicate (mg/l)	RPD
20A0308	BMO-2010-3M	DUP20200106	9.01	9.07	0.66%
20A0473	PANAGAKOS	DUP20201401	457	461	0.87%
20A0582	COOPER	DUP20200121	20.9	21.2	1.43%
20E0248	NWC-04	20201105 DUP	186	190	2.13%
20G0623	HOWARD 312	DUP20200721	75.7	73.1	3.49%
20H0296	BMO-2015-2BL	DUP20200805	327	333	1.82%
X0H0366	BMO-2008-11G	DUP-081320	11.9	8.16	37.29%
20H0471	PALMER	DUP20200814	16.3	16.3	0.00%

mg/L = milligrams per liter
RPD = Relative Percent Difference

Precision for water level monitoring was met by measuring the water level repeatedly until readings were within 0.03 feet of one another. Readings within that range were obtained from all wells where groundwater measurements were collected; meeting the DQI for precision.

5.2 Bias

Bias is a systematic distortion of measurements causing consistent errors in one direction. Bias is managed in this data set by the consistent application of standardized sample collection and analysis procedures. As discussed in Section 4.5.5, no blank samples had detection above the target MDL indicating that the sampling collection and analysis procedures did not contribute sulfate to the results.

5.3 Accuracy

Accuracy is a measure of the agreement of a measurement to a known value and is measured using the recoveries from laboratory control samples. As discussed in Sections 4.5.1, 4.5.2, and 4.5.3 there were no significant exceedances of the recovery QA criteria for any of the calibration

standards, analytical spikes, or laboratory duplicates, respectively. As discussed in Section 4.5.5, none of the blank samples had sulfate detections above the target MDL indicating that the sampling collection and analysis procedures did not significantly contribute sulfate to the results.

The accuracy of water level measurements was evaluated by comparing measurements to prior measurements to ensure consistency. Based on this information, the overall accuracy of the data is judged sufficient for the purpose of aquifer characterization.

5.4 Representativeness

All water level measurements and samples were taken from locations identified in the Mitigation Plan following standard sampling procedures and QA/QC guidelines specified in the QAPP. In addition, results are expected to be representative of groundwater quality at the sampled locations because sulfate was not detected in the field or equipment blanks above the target MDL.

5.5 Comparability

All samples were collected using standardized procedures (HGC, 2008) and were analyzed by SVL and Turner using standardized methods. Insofar as standardized sample collection and analytical methods are adhered to, the sample results should be comparable.

5.6 Completeness

All samples collected and subsequently analyzed and reported by SVL and Turner satisfy the QA/QC criteria for this project. The completeness of analytical results is 100 percent, which exceeds the minimum 90 percent completeness DQI in Section 3.3.6 of the QAPP.

5.7 Sensitivity

The analytical methods used to analyze the samples meet the MDL requirements specified in Table F.2 of the QAPP. The water level sounder was accurate to 0.01 feet as specified in Section 4 of the QAPP. Therefore, the analytical sensitivity is considered acceptable for use in aquifer characterization.

5.8 Reliability

After analyzing the results of all samples, comparing results to historical data, and carefully reviewing the field and laboratory methods used, the data reported here are judged to provide a reliable representation of groundwater conditions at the sampled locations for 2020.

6. REFERENCES

Arizona Department of Environmental Quality (ADEQ). 2007. Mitigation Order on Consent Docket No. P-121-07, In the Matter of: Phelps Dodge Corporation, Copper Queen Branch, located at 36 West Highway 92, Bisbee, Arizona, ADEQ Identification Number 100531. November 14, 2007.

Clear Creek Associates. 2015. Mitigation Plan for Sulfate with respect to Drinking Water Supplies, Mitigation Order on Consent No. P-121-07. March 6, 2015.

Clear Creek Associates. 2019. Mitigation Performance Review for 2018, Mitigation Order on Consent No. P-121-07. March 28, 2019.

Hydro Geo Chem, Inc. 2008. Revision 1, Work Plan to Characterize and Mitigate Sulfate with Respect to Drinking Water Supplies in the Vicinity of the Concentrator Tailing Storage Area, Cochise County, Arizona. July 3, 2008.

APPENDIX D

WELL RECORDS REGISTRY REVIEW

APPENDIX D

WELL RECORDS REGISTRY REVIEW

ANNUAL GROUNDWATER MONITORING REPORT FOR 2020

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TABLE

D.1. Well Records Review Summary

FIGURES

D.1. Project Location Map
D.2. Well Search Area and New Well Registrations

APPENDIX

D.1. Imaged Records

1. INTRODUCTION

1.1 Scope and Objectives

This report describes a review of the Arizona Department of Water Resources (ADWR) 55 Well Registry Database (WRD) to identify new registered wells installed since January 2020 within one mile of the groundwater sulfate plume near the Freeport Minerals Corporation, Copper Queen Branch (CQB) Concentrator Tailing Storage Area (CTSA) (Figure D.1). The well registry records review is a requirement of the Mitigation Plan (Clear Creek Associates, 2015) submitted to Arizona Department of Environmental Quality (ADEQ) in 2015 pursuant to Mitigation Order (MO) on Consent Docket No. P-121-07 (MO) between CQB and ADEQ.

The well registry records review is conducted pursuant to Section 2.4 of the Mitigation Plan which states the following.

> *"The ADWR well registry records will be reviewed annually to identify new existing wells installed within one mile of the plume. Water use at new wells will be determined from the ADWR registry record and by inquiry with the well owner."*

An initial inventory of wells within one mile of the plume was submitted to ADEQ in 2008 (Hydro Geo Chem, Inc., 2008). A well inventory update conducted using WRD information available as of April 2012 was submitted to ADEQ in 2014 (Clear Creek Associates, 2014). Annual well records reviews were submitted as part of the Annual Groundwater Reports for 2015, 2016, 2017, 2018, and 2019 (Clear Creek, 2016, 2017, 2018, 2019, and 2020). The last well records review (Clear Creek, 2020) used WRD information available as of January 2020.

The well records review reported herein discusses only new WRD records added to the WRD between January 2020 and January 2021. The WRD was downloaded from the ADWR website (https://gisdata2016-11-18t150447874z-azwater.opendata.arcgis.com/search?tags=well) on January 29, 2021 as a shapefile for use with ESRI ArcMap software. The website indicated that the shapefile was last updated on January 28, 2021.

1.2 Monitoring of Drinking Water Supplies

The MO set the action level for the sulfate concentration in drinking water supplies at 250 milligrams per liter (mg/L). The edge of the sulfate plume is defined as the 250 mg/L sulfate concentration contour estimated based on the results of groundwater monitoring. CQB conducts groundwater sampling for sulfate at drinking water supply and monitoring wells according to the long term plume monitoring and expanded groundwater monitoring programs described in the Mitigation Plan. Public drinking water supplies and private drinking water supplies within 2,000 feet of the plume are sampled semiannually. Annual sampling is performed at private drinking water supplies between 2,000 feet and one mile of the plume, and at drinking water supply wells installed below the plume as mitigation actions. New drinking water supply wells within a mile of the plume are added to the long term plume monitoring program as they are identified, contingent on well owner approval.

2. METHODOLOGY

2.1 Identification of Wells Within One Mile of the Plume

Figures D.1 and D.2 show the sulfate plume based on groundwater monitoring data for the third quarter of 2020. The January 2020 WRD and Geographic Information Systems (GIS) software were used to identify registered wells installed within 1 mile of the sulfate plume. The database was imported into the GIS software and a shapefile was created to encompass the area 1 mile from the edge of the sulfate plume plus a safety factor of 0.1 miles. The safety factor accounts for uncertainty in the exact position of wells because the WRD contains only cadastral coordinates accurate to approximately 470 feet. Figure D.2 shows the outline of the search area 1.1 miles from the sulfate plume. The list of wells within the January 2021 search area was compared to the list of wells reported in the Well Records Review for 2020 to identify new records. Table D.1 lists the two new records added to the WRD between January 2020 and January 2021. The locations of the new well records are shown on Figure D.2.

3. RESULTS

3.1 New Records Identified

The well records review identified two new record for wells within a mile of the plume (Table D.1 and Figure D.2). The well registry numbers for the new records are 55-232146 and 55-232988. The ADWR imaged records for the wells are attached as Appendix D.1.

Well 55-232146 is a replacement well for the RUIZ well (55-531770), which has been sampled under the Mitigation Order since 2008. The new well was installed in April 2020 and was sampled in August 2020 as part of the third quarter sampling. The well is used as a private drinking water supply well and it is reported in the main text as RUIZ 146. RUIZ 146 was added to the semiannual sampling schedule long term plume monitoring because it is a supply well within 2,000 feet of the sulfate plume.

The well record for Well 55-232988 is a notice of intent to drill an exempt well. The imaged record lists the well owner as Theresa Cooper who is the owner of the COOPER well (55-623564), which has been sampled for the Mitigation Order since 2008. The notice of intent also shows that the proposed well is on the same property as the COOPER well. In July 2020 Clear Creek contacted Ms. Cooper about sampling the COOPER well. At that time, Ms. Cooper indicated that the existing well was dry and that a replacement well was being planned. Clear Creek contacted Ms. Cooper again in December 2020, and Ms. Cooper indicated that a well might be installed in the first quarter 2021. The COOPER well was used as a private supply well. If a new well is installed, Clear Creek will confirm the well usage and add the well to the sampling schedule pursuant to the Mitigation Plan (2015).

4. REFERENCES

Clear Creek Associates. 2014. Well Inventory Update, Task 1 of Aquifer Characterization Plan for Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. June 30, 2014.

Clear Creek Associates. 2015. Mitigation Plan for Sulfate with Respect for Drinking Water Supplies, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 6, 2015.

Clear Creek Associates. 2016. Annual Groundwater Monitoring Report for 2015, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 1, 2016.

Clear Creek Associates. 2017. Annual Groundwater Monitoring Report for 2016, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 1, 2017.

Clear Creek Associates. 2018. Annual Groundwater Monitoring Report for 2017, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. February 23, 2018.

Clear Creek Associates. 2019. Annual Groundwater Monitoring Report for 2018, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 6, 2019.

Clear Creek Associates. 2020. Annual Groundwater Monitoring Report for 2019, Mitigation Order on Consent Docket No. P-121-07, Cochise County, Arizona. March 10, 2020.

Hydro Geo Chem. 2008. Well Inventory Report, Task 1 of Aquifer Characterization Plan for Mitigation Order on Consent No. P-121-07, Cochise County, Arizona. July 28, 2008.

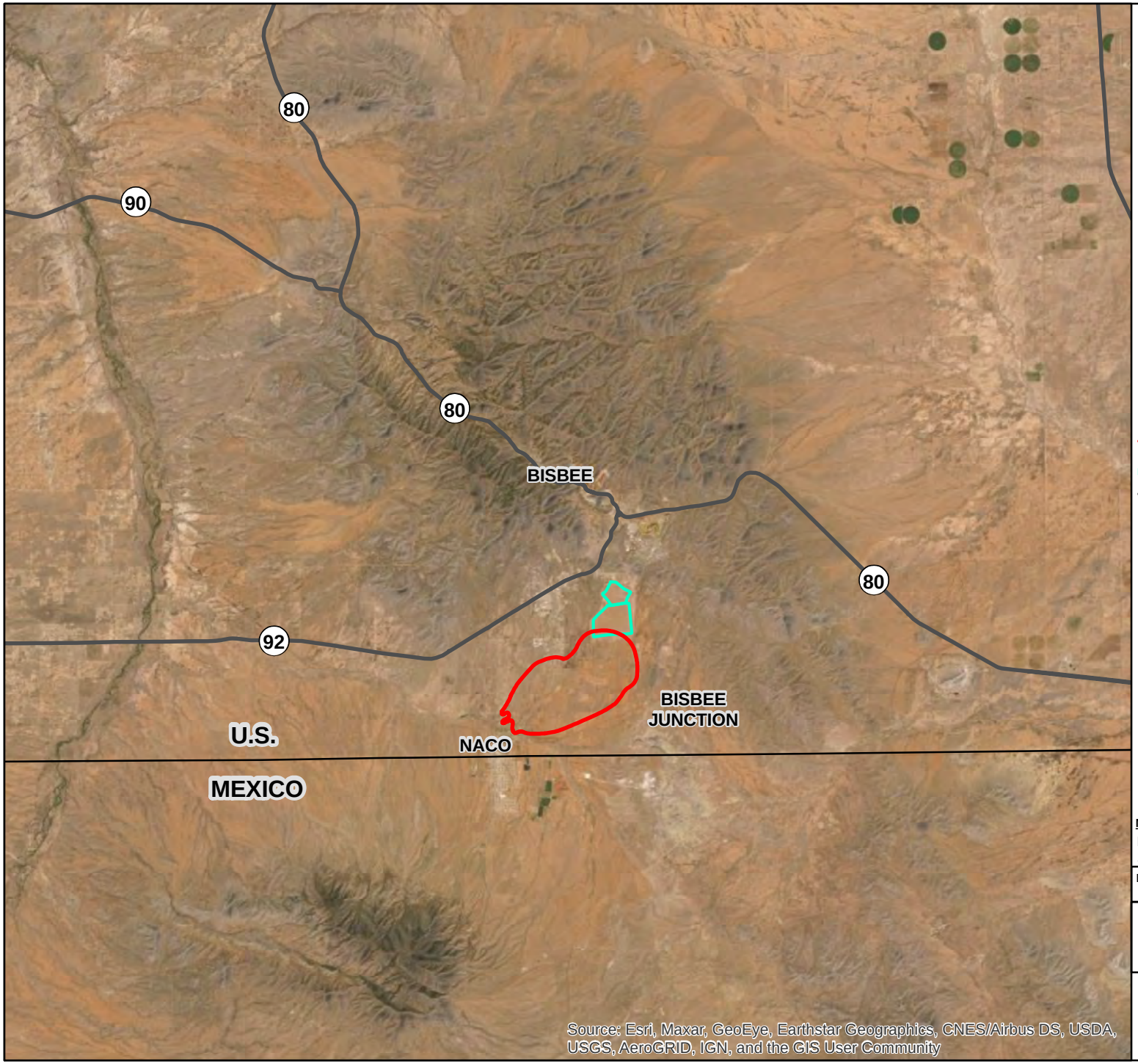
TABLE

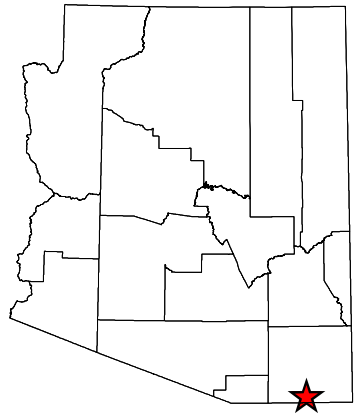
TABLE D.1.
Well Record Review Summary

Well Registry Number	Owner Name	Well Name	Category	MO Groundwater Monitoring Frequency	Operational	Usage
Domestic Water Supply Well						
232146	David Ruiz	RUIZ 146	Domestic	Semi-Annual	Yes	Domestic Supply
232988	Theresa Cooper	COPPER 988	Domestic	Not Drilled as of January 2021		

CLEAR CREEK ASSOCIATES

FIGURES





Legend

- Third Quarter 2020 250 mg/L Sulfate Plume
- CTSA
- Highway
- International Border

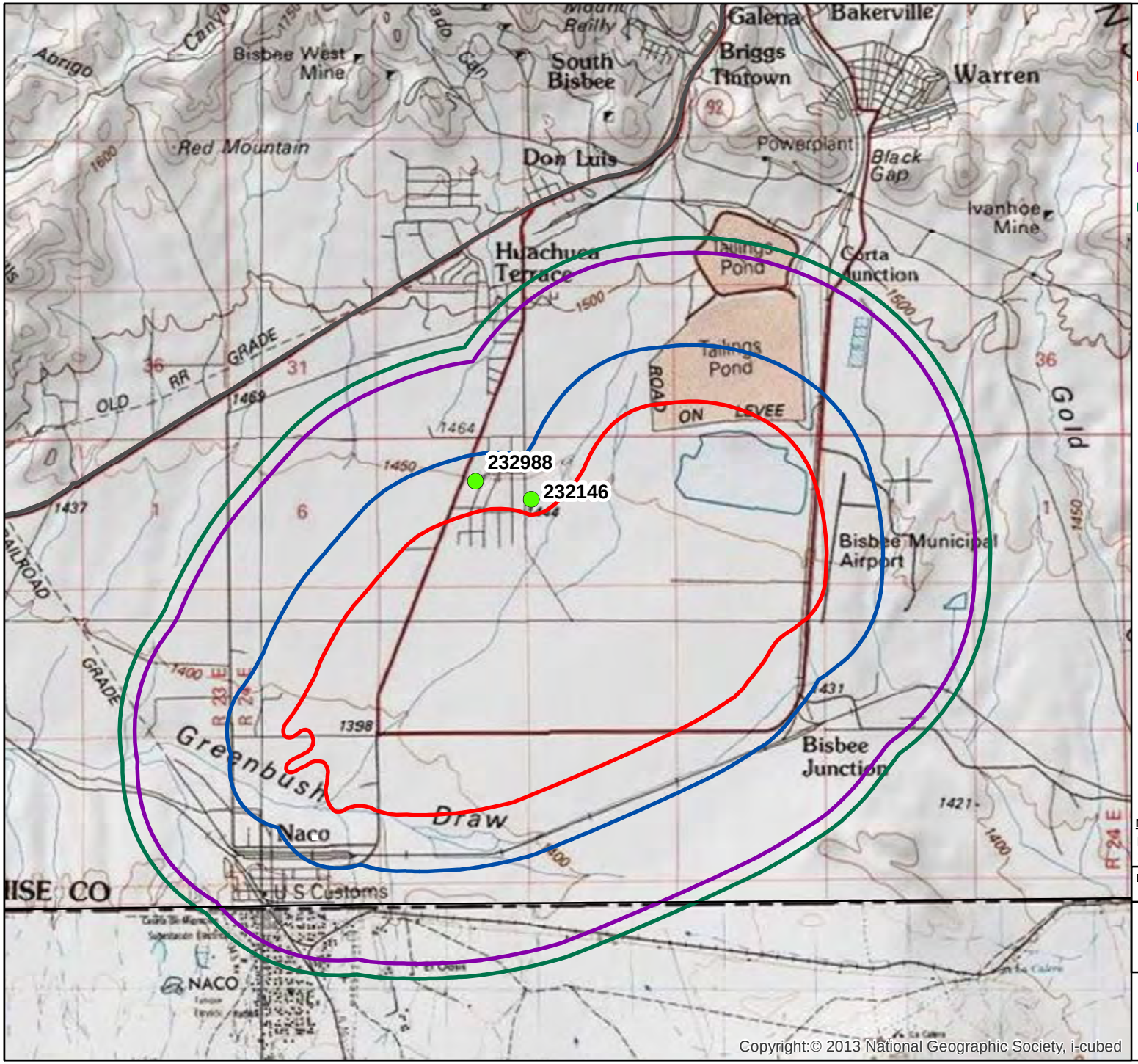
Notes:

Projection: UTM Zone 12N NAD83

Date	File ID
2/9/2021	055038-560

CLEAR CREEK ASSOCIATES

FIGURE D.1.
Project Location Map



Legend

- Third Quarter 2020 250 mg/L Sulfate Plume
- 2,000 Feet from Sulfate Plume
- 1 Mile from Sulfate Plume
- 1.1 Miles from Sulfate Plume
- New Well Record

Notes:

Projection: UTM Zone 12N NAD83

Date	File ID
2/9/2021	055038-540

CLEAR CREEK ASSOCIATES

FIGURE D.2
Well Search Area
and New Well Registrations

APPENDIX D.1

IMAGED RECORDS

Received
AUG 01 2020
Arizona Department of Water Resources

Arizona Department of Water Resources
Information Management Unit
PO Box 36020 , Phoenix, AZ 85067-6020
(602) 771-8527 • 1-800-352-8488

Pump Installation Completion Report

- Review instructions prior to completing form in black or blue ink.
- The registered well owner shoud file this report with the Department within 30 days following installation of pump equipment.

** PLEASE PRINT CLEARLY **

FILE NUMBER: **D(24-24) 4 BCC**
WELL REGISTRATION NUMBER: 55 - 232146

SECTION 1. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: RUIZ, DAVID GILBERT

MAILING ADDRESS: PO BOX 4205

CITY / STATE / ZIP: BISBEE. AZ. 85603

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: | FAX:

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24S	24E	4	B 1/4	C 1/4	C 1/4

COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)

BOOK	MAP	PARCEL
102	38	002

COUNTY WHERE WELL IS LOCATED: Cochise

SECTION 2. EQUIPMENT INSTALLED

DATE PUMP INSTALLED: 4-24-20

Pump Type

CHECK ONE

- [x] Air Lift
- [ ] Bucket
- [ ] Centrifugal
- [ ] Jet
- [ ] Piston
- [ ] Rotary
- [ ] Submersible
- [ ] Turbine
- [ ] Other *(Please Specify)*:

RATED PUMP CAPACITY: 10 Gallons Per Minute

Pitless Adaptor

CHECK ONE *(SEE INSTRUCTIONS FOR DEFINITION)*

Was a pitless adaptor installed? [ ] Yes [x] No

IF YES, DEPTH BELOW GROUND LEVEL THE DEVICE WAS INSTALLED: Feet

Power Type

CHECK ONE

- [ ] Diesel Engine
- [x] Electric Motor
- [ ] Gasoline Engine
- [ ] Hand
- [ ] Natural Gas
- [ ] Windmill
- [ ] Other *(Please Specify)*:

HORSE POWER RATING OF MOTOR: 1.5

SECTION 3. PUMP TEST

Pump Test Data

DATE WELL TESTED: 4-24-20

STATIC WATER LEVEL (A): 212 Feet Below Land Surface

PUMPING WATER LEVEL (B): 350 Feet Below Land Surface

DRAWDOWN [(B) - (A)]: 0 Feet Below Land Surface

TEST PUMPING RATE: 10 Gallons Per Minute

DURATION OF PUMP TEST (Minimum 4 Hours): 12 Hours

TOTAL PUMPING LIFT: 350 Feet

FOR FLOWING WELL, MEASURED SHUT IN HEAD: [ ] FT [ ] PSI

Method of Discharge Measurement

CHECK ONE

- [x] Bucket - Barrel - Stopwatch
- [ ] Bailer
- [ ] Current
- [ ] Estimated - Air Lift
- [ ] Gauge
- [ ] Meter
- [ ] Orifice
- [ ] Volume
- [ ] Weir - Flume
- [ ] Other *(Please Specify)*:

Method of Measuring Water Level

CHECK ONE

- [x] Electric Measuring Line (Sounder)
- [ ] Air Line
- [ ] Steel Tape
- [ ] Other *(Please Specify)*:

I HEREBY CERTIFY that the above statements are true to the best of my knowledge and belief according to A.R.S. § 45-600(B).

SIGNATURE OF WELL OWNER: J. V. Hernandez FOR D.B. RUIZ — DATE: 4/24/2020

Arizona Department of Water Resources
Groundwater Permitting and Wells
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500
www.azwater.gov

RECEIVED
AUG 0 1 2020
ADWR

Well Driller Report and Well Log

4

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL, PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER
D(24-24) 4 BCC
WELL REGISTRATION NUMBER
55 - 232146
PERMIT NUMBER (IF ISSUED)

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
ALLEN'S WELL SERVICE, LLC	14
ADDRESS: 5509 W. GLEESON ROAD	TELEPHONE NUMBER: 520-642-3775
CITY / STATE / ZIP: ELFRIDA, AZ, 85610-9050	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: RUIZ, DAVID GILBERT

MAILING ADDRESS: PO BOX 4205

CITY / STATE / ZIP: BISBEE, AZ, 85603

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: | FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.):

COUNTY: COCHISE

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT): BOOK 102 | MAP 38 | PARCEL 002

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24S	24E	4	B 1/4	C 1/4	C 1/4

LATITUDE			LONGITUDE		
31° DEGREES	22' MINUTES	22" N SECONDS	109° DEGREES	55' MINUTES	06" W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☒ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☒ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION 4752 Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method
CHECK ONE
☒ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☐ Other (please specify)

Method of Well Development
CHECK ONE
☒ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well
CHECK ONE
☐ Capped ☐ Abandoned
☒ Pump Installed ☐ **Not Drilled**

Method of Sealing at Reduction Points
CHECK ONE
☒ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates
DATE WELL CONSTRUCTION STARTED: 4-20-20
DATE WELL CONSTRUCTION COMPLETED: 4-24-20

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: Harry Allen
DATE: 7-27-20

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232146

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
500 Feet Below Land Surface	500 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
212 Feet Below Land Surface	4-24-20		☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	20	12 1/2
20	500	6 5/8
		PERFS

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
+1	20	9 5/8	X										
0	500	6 5/8		X									
300	500										X		1/4

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	20			X					None.			

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232146

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)
0	270	CLAY & GRAVEL	
270	500	SOLID BROWN ROCK	X

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232146

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
RUIZ, DAVID GILBERT	102	38	002

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.

N
W E
S

1" = _____ ft

Please place an X on the map where the well is drilled.



Original upload for Registry: 55-232146

Record updated: **5/11/2020**

--- The document starts on the next page. ---

Run Date: 05/11/2020

AZ DEPARTMENT OF W

WELL REGISTRY REF

55-232146

Location D 24.0 24.0 4 B C C

Well Reg.No 55 - 232146

AMA NOT WITHIN ANY AMA OR INA

Registered Name DAVID GILBERT RUIZ
PO BOX 4205
BISBEE AZ 85603

File Type NEW WELLS (INTENTS OR APPLICATIONS)
Application/Issue Date 04/03/2020

Owner OWNER
Driller No. 14
Driller Name ALLEN'S WELL SERVICE, LLC
Driller Phone 520-642-3775
County COCHISE
Parcel No. 102-38-002
Intended Capacity GPM 15.00

Well Type EXEMPT
SubBasin SIERRA VISTA
Watershed SAN PEDRO RIVER
Registered Water Uses DOMESTIC
Registered Well Uses WATER PRODUCTION
Discharge Method NO DISCHARGE METHOD LISTED
Power NO POWER CODE LISTED

Well Depth	0.00	**Case Diam**	0.00	**Tested Cap**	0.00
Pump Cap.	0.00	**Case Depth**	0.00	**CRT**	
Draw Down	0.00	**Water Level**	0.00	**Log**	
		Acres Irrig	0.00	**Finish**	NO CASING CODE LISTED

Contamination Site: NO - NOT IN ANY REMEDIAL ACTION SITE

Tribe: GRIC Maintenance area

Comments

Places Of Use

D 24 0 24 0 4 B C C

Current Action

3/27/2020 210 COUNTY HEALTH AUTHORITY ENDORSED
Action Comment: kc

Action History

4/6/2020 415 LEGAL APPLICATION REVIEW COMPLETE
Action Comment: kc- not in impact zone

4/6/2020 360 APP SENT TO LEGAL FOR REVIEW
Action Comment: kc

4/6/2020 555 DRILLER & OWNER PACKETS MAILED
Action Comment: kc

4/6/2020 550 DRILLING AUTHORITY ISSUED
Action Comment: kc

4/3/2020 150 NOI RECEIVED FOR A NEW PRODUCTION WELL
Action Comment: kc

ARIZONA DEPARTMENT OF WATER RESOURCES

1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-232146**

AUTHORIZED DRILLER: **ALLEN'S WELL SERVICE, LLC** LICENSE NO: **14**

NOTICE OF INTENTION TO DRILL EXEMPT WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **DAVID GILBERT RUIZ PO BOX 4205 BISBEE, AZ, 85603**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **SW** 1/4 of the **NW** 1/4 Section **4** Township **24.0 SOUTH** Range **24.0 EAST**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **102-38-002**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **April 4, 2021**

Stella Murillo

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.

NOTICE! The Authorization to drill this well **DOES NOT constitute or guarantee an approval to use the well** for the purpose of withdrawing groundwater **for transportation to an Active Management Area (AMA)** pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) **without official prior approval from the Department.**

GREAT SEAL OF THE STATE OF ARIZONA
DITAT DEUS
1912

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

April 6, 2020

DAVID GILBERT RUIZ
PO BOX 4205
BISBEE, AZ 85603

DOUGLAS A. DUCEY
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 232146
File Number: D(24-24) 4 BCC

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Kevin Crego

Groundwater Permitting and Wells Section

RECEIVED
APR 03 2020
Arizona Department of Water Resources

Arizona Department of Water Resources
Groundwater Permits and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 • FAX (602) 771-8689
• www.azwater.gov •

Notice of Intention to Drill, Deepen, Replace or Modify a Well

(except a Non-Exempt Well in an Active Management Area)

$150 or $100 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - Check or money order in the amount of the appropriate filing fee.
  - For a well located within an AMA or INA, the fee is $150.00.
  - For a well not located within an AMA or INA, the fee is $100.00 if the well will be used solely for domestic purposes (see page 2 and instructions) and will have a pump with a maximum capacity of not more than 35 gallons per minute. Otherwise, the fee is $150.00.
- Shared wells: While Arizona water law governs how a well subject to a well sharing agreement is to be drilled and located, it DOES NOT govern the operation or management of a well sharing agreement.
- Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

TO BE COMPLETED BY ADWR			FILE NUMBER
AMA/INA	B: USP	SB: 76	D(24-24)4BCC
RECEIVED DATE: 4/3/2020	WS: 11		WELL REGISTRATION NUMBER
ISSUED DATE: 4/6/2020	REMEDIAL ACTION SITE: —		55 - 232146
LEGAL REVIEW IF APP: KB app	REASONING: not in I.Z.		

☐ FILING MANUALLY

☐ FILING ELECTRONICALLY *(driller's email required)*

SECTION 1. COUNTY OR LOCAL HEALTH AUTHORITY APPROVAL *(if applicable)*

If water from the proposed well will be used for domestic purposes on a parcel of land of 5 or fewer acres, the applicable county or local health authority must endorse all items in Section 1 within one year before submission to the Department of Water Resources. You must also attach a site plan (pg. 3).

CHECK ONE

☒ County or Local Health Authority Recommends Approval (pursuant to A.R.S. § 45-596 (G) and (F))
- ☐ Field Inspection Performed
- ☒ Site Plan Review Only

☐ Insufficient Information to Make a Determination – If checked, please submit supplemental form 55-40C. A.R.S. § 45-596 (G) and (F)

Official County or Local Seal or Stamp

COUNTY OF COCHISE ARIZONA 1881

COUNTY OR LOCAL AUTHORITY NAME AND TITLE: COCHISE COUNTY Planning Tech

TELEPHONE NUMBER: 520-432-9300

DATE: MAR 27 2020

COUNTY OR LOCAL AUTHORITY SIGNATURE: Deborah Hill

SECTION 2. REGISTRY INFORMATION

To determine the place of water use and location of well, please refer to the Well Registry Maps and Google Earth at: (https://gisweb3.azwater.gov/WellReg) and (http://www.earthpoint.us/townships.aspx)

Well Type

CHECK ONE

☒ Exempt
(Pump has a maximum capacity of not more than 35 gpm and water is not used for irrigation purposes inside an AMA.) *(See instructions)*

☐ Non-Exempt
(Pump has a maximum capacity of more than 35 gpm and the well is located outside an AMA.) *(See instructions)*

DESIGN PUMP CAPACITY: 15 Gallons Per Minute

Proposed Action

CHECK ONE

☒ Drill New Well
☐ Deepen
☐ Replace
☐ Modify

If Deepening, Replacing or Modifying:

ORIGINAL WELL REGISTRATION NUMBER: 55 -

MAXIMUM CAPACITY OF ORIGINAL WELL: Gallons Per Minute

DISTANCE & DIRECTION FROM ORIGINAL WELL: Feet

Location of Well

WELL LOCATION ADDRESS (IF ANY): 2295 S Barnett Rd

COUNTY WHERE WELL IS LOCATED: Cochise

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24 S	24 E	4	B ¼	C ¼	C ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARCEL	# OF ACRES
102	38	002	.46

EXPECTED LATITUDE			EXPECTED LONGITUDE		
31 ° Degrees	22 ' Minutes	22 " N Seconds	109 ° Degrees	55 ' Minutes	06 " W Seconds

Place of Water Use *(Mandatory information, see instructions)*

Is the groundwater basin where the well will be drilled the same as the place where the water will be used? Yes ☑ No ☐

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24 S	24 E	4	B ¼	C ¼	C ¼

SECTION 3. OWNER INFORMATION

Land Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: David Gilbert Ruiz

MAILING ADDRESS: PO Box 4205

CITY / STATE / ZIP CODE: Bisbee AZ 85603

CONTACT PERSON NAME AND TITLE: S/A

TELEPHONE NUMBER: 520.432.4122

FAX:

Well Owner *(check this box if Land Owner and Well Owner are same ☑)*

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL:

MAILING ADDRESS:

CITY / STATE / ZIP CODE:

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER:

FAX:

KC

Notice of Intent to Drill, Deepen, Replace or Modify a Well

WELL REGISTRATION NUMBER
55 - 232146

SECTION 4.

Questions	Yes	No	If Yes:
1. Is the proposed well site within 100 feet of a septic tank system, sewer disposal area, landfill, hazardous materials or petroleum storage area or tank?	☐	☑	You must also request a variance *(A.A.C. R12-15-818)*.
2. Is there another well name or identification number associated with this well *(e.g., Lot 35 Well, Smith Well, etc.)*?	☐	☑	*(please state)*
3. Is the proposed well a NEW well to be located within an Active Management Area? *(See instructions)*	☐	☑	You must also file a supplemental form 55-40A, unless the well is a replacement well and the total number of operable exempt wells on the land is not increasing. *A.R.S. § 45-454(C) & (D)*
4. Is the proposed well the second exempt well on this parcel for the same use?	☐	☑	You must also file a supplemental form 55-40B, if the proposed well is in an Active Management Area. A.R.S. § 45-454(I)

SECTION 5. DRILLING AUTHORIZATION

Drilling Firm

NAME	Allen's Well Service, LLC
DWR LICENSE NUMBER	14
ROC LICENSE CATEGORY	C-53 R-53
TELEPHONE NUMBER	520-642-3775
FAX ~~cell~~ NUMBER	520-904-6319
MAILING ADDRESS	5509 W. Gleeson Rd
CITY / STATE / ZIP CODE	Elfrida Az 85610
DRILLERS EMAIL	allenswell@gmail.com
DATE CONSTRUCTION IS SCHEDULED TO BEGIN	ASAP

SECTION 6. WATER / SITE INFORMATION

Principal Use of Water (CHECK ONE)	Other Uses of Water (CHECK ALL THAT APPLY)
☐ Irrigation*	☐ Irrigation
☐ Commercial	☐ Commercial
☑ Domestic	☐ Domestic
☐ Municipal	☐ Municipal
☐ Industrial	☐ Industrial
☐ Stock	☐ Stock
☐ Remediation	☐ Remediation
☐ Dewatering	☐ Dewatering
☐ Other *(please specify)*:	☐ Other *(please specify)*:

**Pursuant to ARS § 45-402(23) Irrigation is defined as applying water to two or more acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry.*

NOTE: If this is a Notice of Intent to construct a new well that will be used for the purpose of withdrawing groundwater for transportation to an Active Management Area *(AMA)* pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A), the authorization to drill the well issued in association with this Notice **shall not be considered the approval to transport groundwater to an AMA.** *(See instructions)*

SECTION 7. PROPOSED WELL CONSTRUCTION DESIGN *(attach separate sheet if needed)*

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	20	12¼
20	500	7⅞

Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (T): STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (T): BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	GROUTING MATERIAL
+1	20	8⅝	X*										CEMENT
20	500	6⅝		✓									
300	500	perfs									✓	3/16"	

** ADWR well construction standards require a surface seal consisting of a minimum of 20 feet of steel casing. Cement grout must be used to fill the annular space between the surface casing and the borehole. (A.A.C. R12-15-811(B))*

The Department's issuance of an authorization to drill a well is not a determination of whether water withdrawn from the well is legally surface water or groundwater. The legal nature of the water withdrawn from the well may be the subject of court action in the future as part of a determination of surface water rights in your area. If there are court proceedings that could affect your well, you will be notified and be given the opportunity to participate. If you have questions regarding the legal nature of the water to be withdrawn from your proposed well, please consult with an experienced civil engineer, hydrologist or water rights attorney.

For the purposes of determining appropriate fees outside AMAs or INAs, "domestic purposes" is defined as "uses related to the supply, service and activities of households and private residences and includes the application of water to less than 2 acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry, as such terms are defined in A.R.S. § 3-1201."

Notice of Intent to Drill, Deepen, Replace or Modify a Well

WELL REGISTRATION NUMBER
55 - 232146

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. Advance notice can be provided. *(See instructions)*

SECTION 9. WELL SITE PLAN

❖ If this well will be a domestic well on 5 acres or less, please draw the following: (1) the boundaries of your property; (2) the proposed well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well. If the parcel is vacant land or lacks a septic tank or sewer system, please indicate this.

❖ Indicate the distance between the proposed well location and any septic tank system or sewer system.

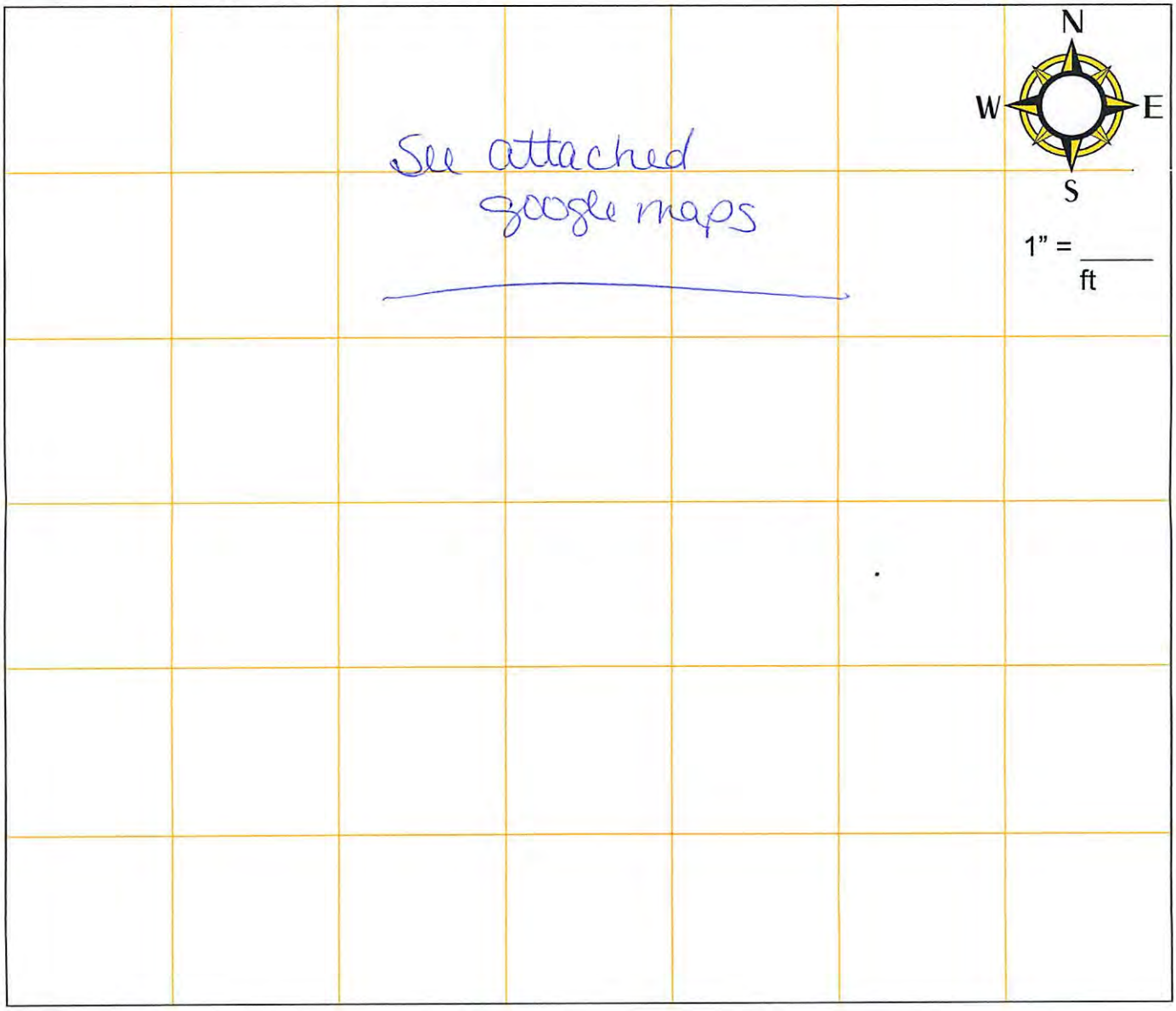
County Assessor's ID# _____ - _____ - _____

COUNTY OR LOCAL HEALTH AUTHORITY APPROVAL CODE	COUNTY APPROVAL CODE
If applicant is filing this NOI electronically via the ADWR website and County approval is required, please indicate approval by providing a County Approval Code.	

SECTION 10. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

Land Owner	Well Owner *(if different from Land Owner; See instructions)*
PRINT NAME AND TITLE: David Gilbert Ruiz	PRINT NAME AND TITLE
SIGNATURE OF LAND OWNER: David G Ruiz	SIGNATURE OF WELL OWNER
DATE: March 27, 2020	DATE
☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☐ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS: DGRUIZ@CABLEONE.NET	EMAIL ADDRESS





Google Earth feet 300 meters 90

Blue = 100' Radius

David Ruiz

102.38.002

* This home is on city sewer which runs out of the front of the home.

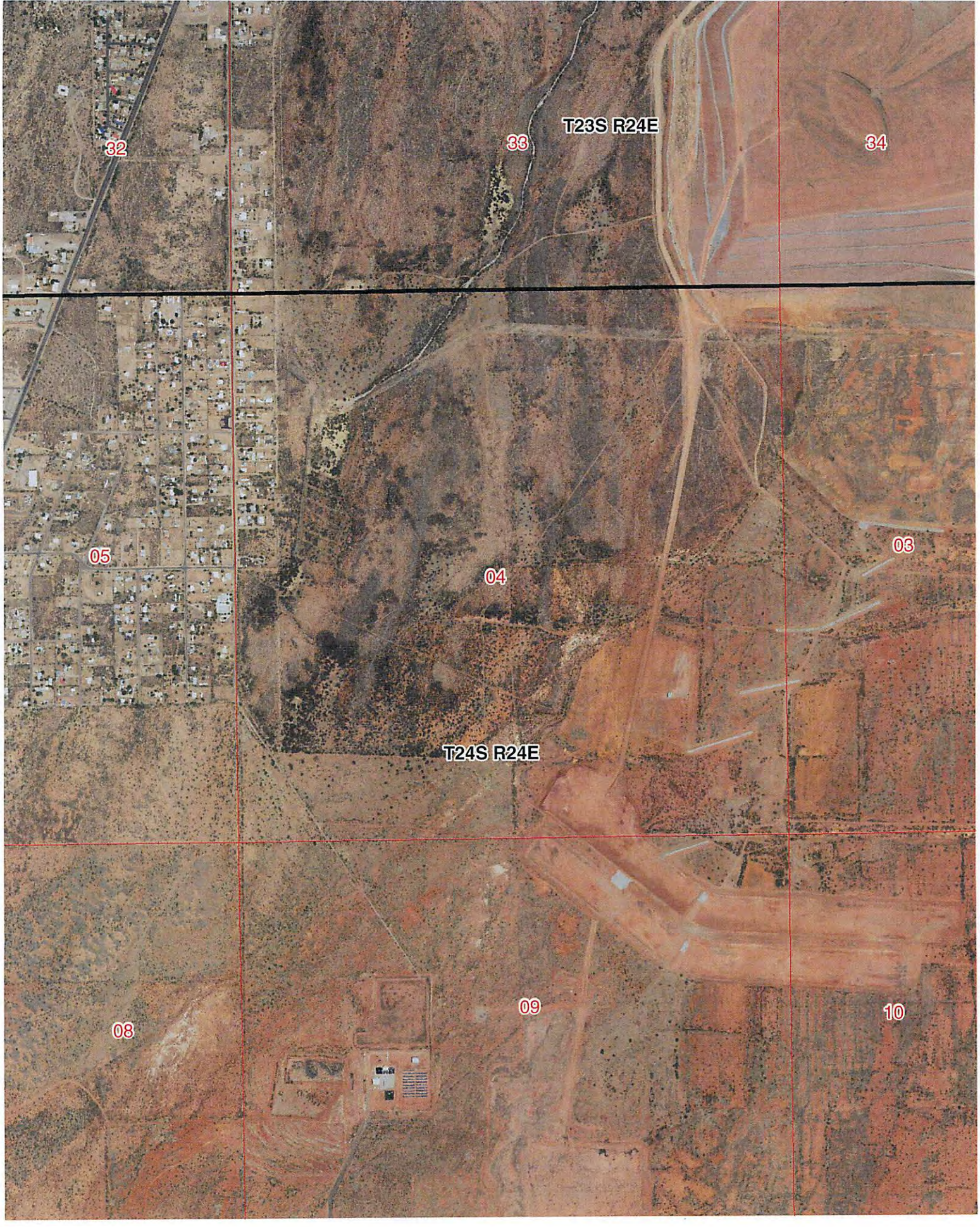


Google Earth

feet 700
meters 200

David Ruiz

102.38.002


T23S R24E
32
33
34
05
04
03
T24S R24E
08
09
10

Printed: 4/6/2020 11:49:28 AM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:
DAVID G RUIZ
P.O. BOX 4205
BISBEE, AZ 85603

Receipt #: 20-72387
Office: MAIN OFFICE
Receipt Date: 04/06/2020
Sale Type: IN_PERSON
Cashier: WRSYM

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
67489	122221	4439-TT	Notice of intention to drill a well that will not be located in an active management area or irrigation non-expansion area, that will be used solely for domestic purposes and that will have a pump with a maximum capacity of not more than 35 gallons per mi	232146	1	100.00	100.00
						RECEIPT TOTAL:	**100.00**

Payment type: CHECK
Amount Paid: $100.00
Payment Received Date: 04/06/2020

Check # 1918

Notes: FROM TTA.

No refund without valid receipt

Original upload for Registry: 55-232988

Record updated: **9/21/2020**

--- The document starts on the next page. ---

Run Date: 09/21/2020

AZ DEPARTMENT OF WA

55-232988

WELL REGISTRY REPC

Location D 24.0 24.0 5 A C A

Well Reg.No **55 -** 232988

AMA NOT WITHIN ANY AMA OR INA

Registered Name THERESA COOPER
PO BOX 147
ARIZONA CITY AZ 85123

File Type NEW WELLS (INTENTS OR APPLICATIONS)
Application/Issue Date 09/17/2020

Owner OWNER
Driller No. 133
Driller Name TANNER WELL SERVICE, LLC
Driller Phone 520-378-1606
County COCHISE
Parcel No. 102-39-185
Intended Capacity GPM 10.00

Well Type EXEMPT
SubBasin SIERRA VISTA
Watershed SAN PEDRO RIVER
Registered Water Uses DOMESTIC
Registered Well Uses WATER PRODUCTION
Discharge Method NO DISCHARGE METHOD LISTED
Power NO POWER CODE LISTED

Well Depth	0.00	**Case Diam**	0.00	**Tested Cap**	0.00
Pump Cap.	0.00	**Case Depth**	0.00	**CRT**	
Draw Down	0.00	**Water Level**	0.00	**Log**	
		Acres Irrig	0.00	**Finish**	NO CASING CODE LISTED

Contamination Site: NO - NOT IN ANY REMEDIAL ACTION SITE

Tribe: GRIC Maintenance area

Comments 9/21/2020 Well not in GRIC Impact Zone. ajf

Places Of Use

D 24 0 24 0 5

Current Action

9/21/2020 555 DRILLER & OWNER PACKETS MAILED
Action Comment: ajf

Action History

9/21/2020 415 LEGAL APPLICATION REVIEW COMPLETE
Action Comment: ajf

9/21/2020 550 DRILLING AUTHORITY ISSUED
Action Comment: ajf

9/18/2020 360 APP SENT TO LEGAL FOR REVIEW
Action Comment: ajf

9/17/2020 150 NOI RECEIVED FOR A NEW PRODUCTION WELL
Action Comment: ajf

ARIZONA DEPARTMENT of WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, AZ 85007
602-771-8500
azwater.gov

September 21, 2020

THERESA COOPER
PO BOX 147
ARIZONA CITY, AZ 85123

DOUGLAS A. DUCEY
Governor

THOMAS BUSCHATZKE
Director

Registration No. 55- 232988
File Number: D(24-24) 5 ACA

Dear Well Applicant:

Enclosed is a copy of the Notice of Intention to Drill (NOI) a well which you or your driller recently filed with the Department of Water Resources. This letter is to inform you that the Department has approved the NOI and has mailed, or made available for download, a drilling authorization card to your designated well drilling contractor. The driller may not begin drilling until he/she has received the authorization, and must keep it in their possession at the well site during drilling. Although the issuance of this drill card authorizes you to drill the proposed well under state law, the drilling of the well may be subject to restrictions or regulations imposed by other entities.

Well drilling activities must be completed within one year after the date the NOI was filed with the Department. If drilling is not completed within one year, a new NOI must be filed and authorization from this Department received before proceeding with drilling. If the well cannot be successfully completed as initially intended (dry hole, cave in, lost tools, etc.), the well must be properly abandoned and a Well Abandonment Completion Report must be filed by your driller [as required by A.A.C. R12-15-816(F)].

If you change drillers, you must notify the Department of the new driller's identity on a Request to Change Well Drilling Contractor (form 55-71B). Please ensure that the new driller is licensed by the Department to drill the type of well you require. A new driller may not begin drilling until he/she receives a new drilling authorization card from the Department. Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

If you find it necessary to change the location of the proposed well(s), you may not proceed with drilling until you file an amended NOI with the Department. An amended drilling authorization card will then be issued to the well drilling contractor, which must be in their possession before drilling begins.

Arizona statute [A.R.S. § 45-600] requires registered well owners to file a Pump Installation Completion Report (form 55-56) with the Department within 30 days after the installation of pumping equipment, if authorized. A blank report is enclosed for your convenience. State statute also requires the driller to file a complete and accurate Well Drillers Report and Well Log (form 55-55) within 30 days after completion of drilling. A blank report form was provided to your driller with the drilling authorization card. You should insist and ensure that all of the required reports are accurately completed and timely filed with the Department.

Please be advised that Arizona statute [A.R.S. § 45-593(C)] requires a registered well owner to notify the Department of a change in ownership of the well and/or information pertaining to the physical characteristics of the well in order to keep this well registration file current and accurate. Any change in well information must be filed on a Request to Change Well Information form (form 55-71A). Forms may be obtained by contacting the Department, or online at: https://new.azwater.gov/permitting-wells/well-forms-and-applications.

Sincerely,

Alicia Flores

Groundwater Permitting and Wells Section

ARIZONA DEPARTMENT OF WATER RESOURCES

1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-232988**

AUTHORIZED DRILLER: **TANNER WELL SERVICE, LLC** LICENSE NO: **133**

NOTICE OF INTENTION TO DRILL EXEMPT WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **THERESA COOPER PO BOX 147 ARIZONA CITY, AZ, 85123**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

NE 1/4 of the **SW** 1/4 of the **NE** 1/4 Section **5** Township **24.0 SOUTH** Range **24.0 EAST**

NO. OF WELLS IN THIS PROJECT: **1** ASSESSOR'S PARCEL NO: **102-39-185**

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **September 18, 2021**

Stella Murillo

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.

NOTICE! The Authorization to drill this well **DOES NOT constitute or guarantee an approval to use the well** for the purpose of withdrawing groundwater **for transportation to an Active Management Area (AMA)** pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A) **without official prior approval from the Department.**



Arizona Department of Water Resources
Groundwater Permits and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 • Fax (602) 771-8689
• www.azwater.gov •

Notice of Intention to Drill, Deepen, Replace or Modify a Well

(except a Non-Exempt Well in an Active Management Area)

$150 or $100 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - Check or money order in the amount of the appropriate filing fee.
  - For a well located within an AMA or INA, the fee is $150.00.
  - For a well not located within an AMA or INA, the fee is $100.00 if the well will be used solely for domestic purposes (see page 2 and instructions) and will have a pump with a maximum capacity of not more than 35 gallons per minute. Otherwise, the fee is $150.00.
- Shared wells: While Arizona water law governs how a well subject to a well sharing agreement is to be drilled and located, it DOES NOT govern the operation or management of a well sharing agreement.
- Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

TO BE COMPLETED BY ADWR			FILE NUMBER
AMA/INA	B USP	SB 76	D(24-24)5ACA
RECEIVED DATE 9/17/2020	WS 11		WELL REGISTRATION NUMBER
ISSUED DATE 9/21/2020	REMEDIAL ACTION SITE		55 - 232988
LEGAL REVIEW IF APP KB app	REASONING NOt in I.Z.		

☐ FILING MANUALLY

☐ FILING ELECTRONICALLY *(driller's email required)*

SECTION 1. COUNTY OR LOCAL HEALTH AUTHORITY APPROVAL *(if applicable)*

If water from the proposed well will be used for domestic purposes on a parcel of land of 5 or fewer acres, the applicable county or local health authority must endorse all items in Section 1 within one year before submission to the Department of Water Resources. You must also attach a site plan (pg. 3).

CHECK ONE

☑ County or Local Health Authority Recommends Approval (pursuant to A.R.S. § 45-596 (G) and (F))
- ☐ Field Inspection Performed
- ☑ Site Plan Review Only

☐ Insufficient Information to Make a Determination – If checked, please submit supplemental form 55-40C. A.R.S. § 45-596 (G) and (F)

Official County or Local Seal or Stamp

COUNTY OR LOCAL AUTHORITY NAME AND TITLE: Cochise County Planning Tech

TELEPHONE NUMBER: 432-9300

DATE: SEP 11 2020

COUNTY OR LOCAL AUTHORITY SIGNATURE: Deborah Hill

SECTION 2. REGISTRY INFORMATION

To determine the place of water use and location of well, please refer to the Well Registry Maps and Google Earth at: (https://gisweb3.azwater.gov/WellReg) and (http://www.earthpoint.us/townships.aspx)

Well Type

CHECK ONE

☒ Exempt (Pump has a maximum capacity of not more than 35 gpm and water is not used for irrigation purposes inside an AMA.) *(See instructions)*

☐ Non-Exempt (Pump has a maximum capacity of more than 35 gpm and the well is located outside an AMA.) *(See instructions)*

DESIGN PUMP CAPACITY: 10 Gallons Per Minute

Proposed Action

CHECK ONE

☒ Drill New Well
☐ Deepen
☐ Replace
☐ Modify

If Deepening, Replacing or Modifying:

ORIGINAL WELL REGISTRATION NUMBER: 55 -

MAXIMUM CAPACITY OF ORIGINAL WELL: Gallons Per Minute

DISTANCE & DIRECTION FROM ORIGINAL WELL: Feet

Location of Well

WELL LOCATION ADDRESS (IF ANY): 2177 S. Naco Hwy

COUNTY WHERE WELL IS LOCATED: Cochise

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24S	24E	5	NE ¼	SW ¼	NE ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARCEL	# OF ACRES
102	39	185	1.25

EXPECTED LATITUDE			EXPECTED LONGITUDE		
31 Degrees	22 Minutes	31.74 Seconds "N	109 Degrees	55 Minutes	31.44 Seconds "W

Reset

Place of Water Use *(Mandatory information, see instructions)*

Is the groundwater basin where the well will be drilled the same as the place where the water will be used?	Yes	No
	☒	☐

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
24S	24E	5	NE ¼	SW ¼	NE ¼

SECTION 3. OWNER INFORMATION

Land Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: Theresa Cooper

MAILING ADDRESS: P.O. Box 1417

CITY / STATE / ZIP CODE: Arizona City AZ 85123

CONTACT PERSON NAME AND TITLE: Theresa or Dale Jensen

TELEPHONE NUMBER: 520 494-8400

FAX:

Well Owner *(check this box if Land Owner and Well Owner are same ☒)*

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL:

MAILING ADDRESS:

CITY / STATE / ZIP CODE:

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER:

FAX:

Notice of Intent to Drill, Deepen, Replace or Modify a Well

WELL REGISTRATION NUMBER
55 - 232984

SECTION 4.

Questions	Yes	No	If Yes:
1. Is the proposed well site within 100 feet of a septic tank system, sewer disposal area, landfill, hazardous materials or petroleum storage area or tank?	☐	☒	You must also request a variance *(A.A.C. R12-15-818).*
2. Is there another well name or identification number associated with this well *(e.g., Lot 35 Well, Smith Well, etc.)*?	☐	☒	*(please state)*
3. Is the proposed well a NEW well to be located within an Active Management Area? *(See instructions)*	☐	☒	You must also file a supplemental form 55-40A, unless the well is a replacement well and the total number of operable exempt wells on the land is not increasing. *A.R.S. § 45-454(C) & (D)*
4. Is the proposed well the second exempt well on this parcel for the same use?	☐	☒	You must also file a supplemental form 55-40B, if the proposed well is in an Active Management Area. A.R.S. § 45-454(I)

SECTION 5. DRILLING AUTHORIZATION

Drilling Firm

NAME	Tanner Well Service, LLC		
DWR LICENSE NUMBER	133	ROC LICENSE CATEGORY	A-4 295831 R-53 182725
TELEPHONE NUMBER	520-378-1606	FAX NUMBER	520-803-7400
MAILING ADDRESS	P.O. Box 2234		
CITY / STATE / ZIP CODE	Sierra Vista, AZ 85636		
DRILLERS EMAIL	tannerwell@gmail.com		
DATE CONSTRUCTION IS SCHEDULED TO BEGIN	AUGUST		

SECTION 6. WATER / SITE INFORMATION

Principal Use of Water (CHECK ONE)

- ☐ Irrigation*
- ☐ Commercial
- ☑ Domestic
- ☐ Municipal
- ☐ Industrial
- ☐ Stock
- ☐ Remediation
- ☐ Dewatering
- ☐ Other *(please specify)*:

Other Uses of Water (CHECK ALL THAT APPLY)

- ☐ Irrigation
- ☐ Commercial
- ☐ Domestic
- ☐ Municipal
- ☐ Industrial
- ☐ Stock
- ☐ Remediation
- ☐ Dewatering
- ☐ Other *(please specify)*:

Reset Other Water Uses

**Pursuant to ARS § 45-402(23) Irrigation is defined as applying water to two or more acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry.*

NOTE: If this is a Notice of Intent to construct a new well that will be used for the purpose of withdrawing groundwater for transportation to an Active Management Area *(AMA)* pursuant to A.R.S. § 45-552, 45-553, 45-554 or 45-555(A), the authorization to drill the well issued in association with this Notice **shall not be considered the approval to transport groundwater to an AMA.** *(See instructions)*

SECTION 7. PROPOSED WELL CONSTRUCTION DESIGN *(attach separate sheet if needed)*

Borehole			Casing															
DEPTH FROM SURFACE		BOREHOLE DIAMETER *(inches)*	DEPTH FROM SURFACE		OUTER DIAMETER *(inches)*	MATERIAL TYPE (T)				PERFORATION TYPE (T)						GROUTING MATERIAL
FROM *(feet)*	TO *(feet)*		FROM *(feet)*	TO *(feet)*		STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	
0	20	12	+1	20	8 5/8	X*				X						CEMENT
20	450	8	0	350	6.63		X			X						
			350	450	6.63		X							X		

** ADWR well construction standards require a surface seal consisting of a minimum of 20 feet of steel casing. Cement grout must be used to fill the annular space between the surface casing and the borehole. (A.A.C. R12-15-811(B))*

The Department's issuance of an authorization to drill a well is not a determination of whether water withdrawn from the well is legally surface water or groundwater. The legal nature of the water withdrawn from the well may be the subject of court action in the future as part of a determination of surface water rights in your area. If there are court proceedings that could affect your well, you will be notified and be given the opportunity to participate. If you have questions regarding the legal nature of the water to be withdrawn from your proposed well, please consult with an experienced civil engineer, hydrologist or water rights attorney.

For the purposes of determining appropriate fees outside AMAs or INAs, "domestic purposes" is defined as "uses related to the supply, service and activities of households and private residences and includes the application of water to less than 2 acres of land to produce plants or parts of plants for sale or human consumption, or for use as feed for livestock, range livestock or poultry, as such terms are defined in A.R.S. § 3-1201."

Notice of Intent to Drill, Deepen, Replace or Modify a Well

WELL REGISTRATION NUMBER
55 - 232988

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. Advance notice can be provided. *(See instructions)*

SECTION 9. WELL SITE PLAN

- If this well will be a domestic well on 5 acres or less, please draw the following: (1) the boundaries of your property; (2) the proposed well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well. If the parcel is vacant land or lacks a septic tank or sewer system, please indicate this.
- Indicate the distance between the proposed well location and any septic tank system or sewer system.

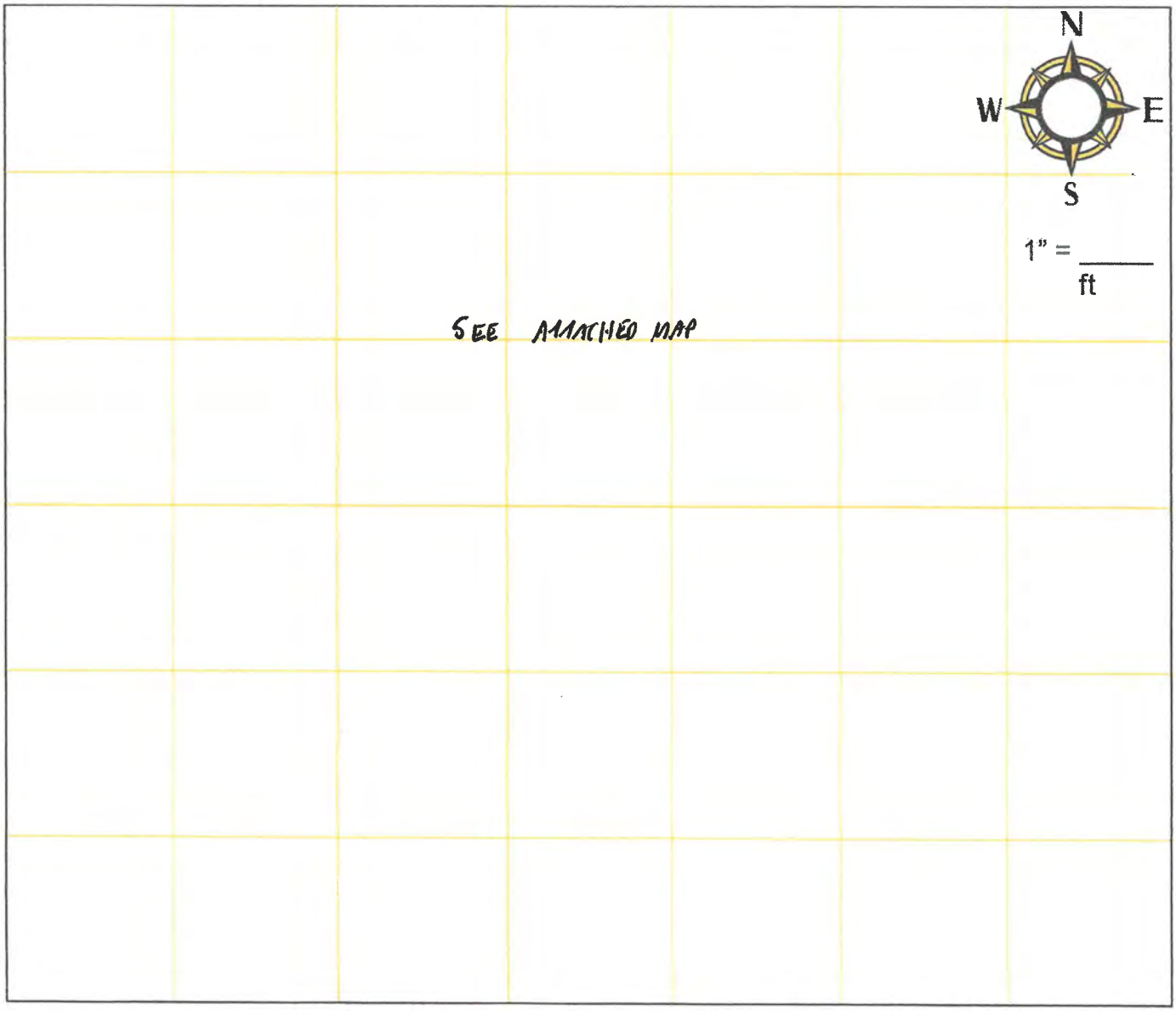
County Assessor's ID# _____ - _____ - _____

COUNTY OR LOCAL HEALTH AUTHORITY APPROVAL CODE	COUNTY APPROVAL CODE
If applicant is filing this NOI electronically via the ADWR website and County approval is required, please indicate approval by providing a County Approval Code.	

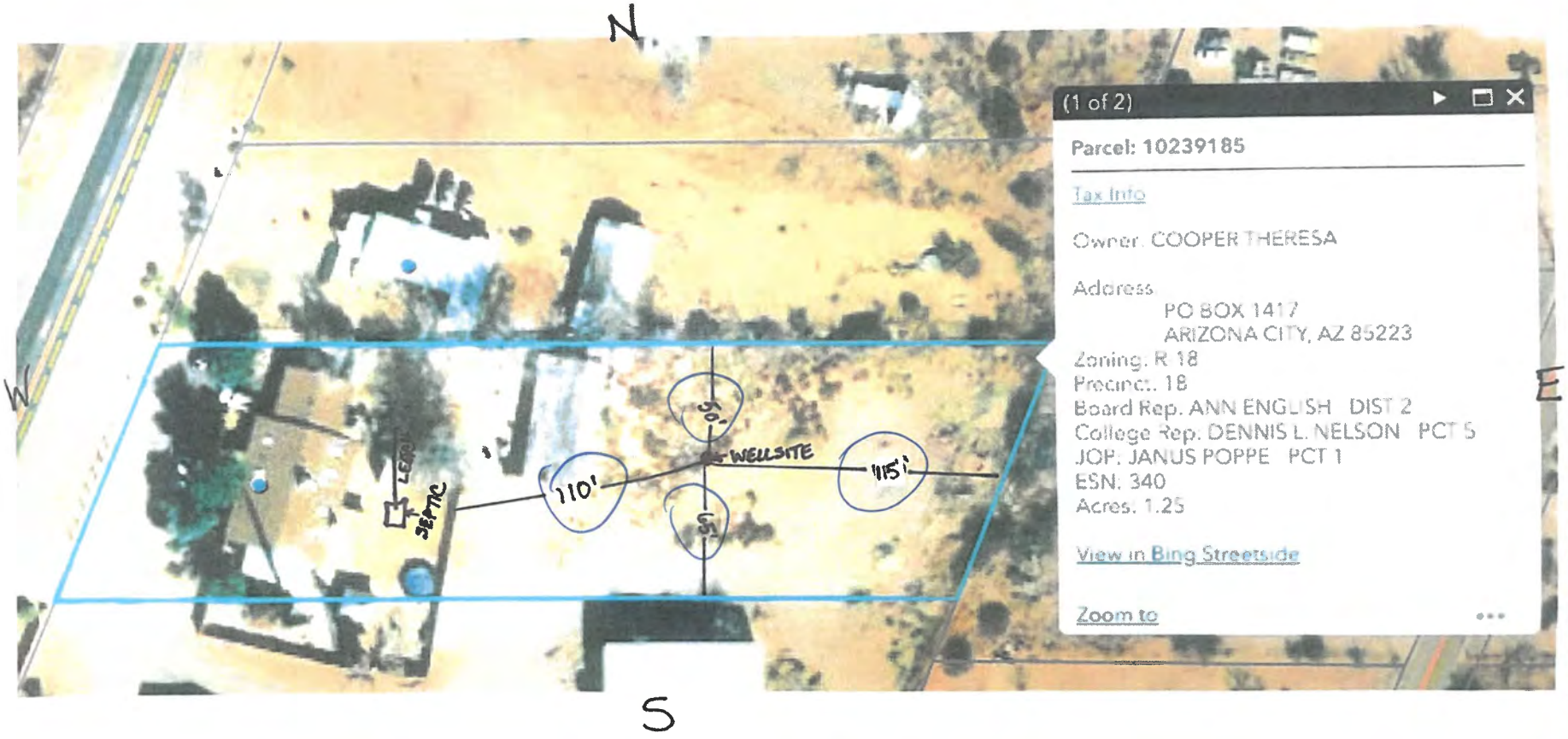
SECTION 10. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

Land Owner	Well Owner *(if different from Land Owner; See instructions)*
PRINT NAME AND TITLE: Theresa Cooper	PRINT NAME AND TITLE
SIGNATURE OF LAND OWNER: Theresa Cooper	SIGNATURE OF WELL OWNER
DATE: 7-27-20	DATE
☐ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☐ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS	EMAIL ADDRESS



VALIDATE FORM | RESET FORM | SAVE FORM | PRINT FORM


N
W
E
S
(1 of 2)
Parcel: 10239185
Tax Info
Owner: COOPER THERESA
Address
PO BOX 1417
ARIZONA CITY, AZ 85223
Zoning: R-18
Precinct: 18
Board Rep. ANN ENGLISH DIST 2
College Rep. DENNIS L. NELSON PCT 5
JOP: JANUS POPPE PCT 1
ESN: 340
Acres: 1.25
View in Bing Streetside
Zoom to
WELLSITE
110'
115'
50'
50'
LEACH
SEPTIC

55-232988

102-39-185



55-232988

Treasurer Parcel Inquiry

PARCEL INQUIRY
- TAX SUMMARY
- TAX YEAR DUE
- PAYMENT HISTORY
- APPLIED INT/FEES
- VALUATIONS
- OWNER HISTORY
- SPLIT HISTORY
- UPDATE ADDRESS
- TAX BILL ESTIMATOR
- VIEW PARCEL MAP

PAYMENTS
- PAYMENT OPTIONS
- PAY ONLINE

REPORTS
- TAX BILL/PMT COUPON
- PAYMENT RECEIPT
- TAX RECEIPT
- TAX STATEMENT

Tax Summary

Current Owner Name & Mailing Address

COOPER THERESA
PO BOX 1417
ARIZONA CITY, AZ 85223

Legal Description

IN SWNE BY M&B BEG AT NW COR OF LOT 14 OF SUNSET ACRES THN S21DEG 36MIN W250.45'TO TPOB THN S21DEG 36MIN W133.90' W437.83' M/L TO A PT ON ELY R/W OF NACO HWY THN N21DEG 46MIN 20SEC E134.06' E437.29' TO POB SEC 5 24 24 1.260AC AFFIXED/1999 - 1971 24X60 LANGFORD SR#246322343U&V

Interest Date: Make a Payment

Parcel #	Tax Year	Status	Billed	Int/Fees	Tax Paid	Due
102-39-18504	2019	TAX	$1,908.96	$0.00	$1,908.96	$0.00
102-39-18504	2018	TAX	$1,908.38	$0.00	$1,908.38	$0.00
102-39-18504	2017	TAX	$1,906.06	$0.00	$1,906.06	$0.00
102-39-18504	2016	TAX	$2,091.26	$0.00	$2,091.26	$0.00
102-39-18504	2015	TAX	$2,061.56	$0.00	$2,061.56	$0.00
102-39-18504	2014	TAX	$1,918.34	$0.00	$1,918.34	$0.00
102-39-18504	2013	TAX	$1,895.76	$0.00	$1,895.76	$0.00
102-39-18504	2012	TAX	$1,898.18	$0.00	$1,898.18	$0.00
102-39-18504	2011	TAX	$1,533.58	$0.00	$1,533.58	$0.00
102-39-18504	2010	TAX	$1,524.14	$0.00	$1,524.14	$0.00
					Total Due:	**$0.00**

1 20 items per page 1 - 10 of 10 items

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Treasurer Parcel Inquiry

- Parcel Inquiry
  - Tax Summary
  - Tax Year Due
  - Payment History
  - Applied Int/Fees
  - Valuations
  - Owner History
  - Split History
  - Update Address
  - Tax Bill Estimator
  - View Parcel Map
- Payments
  - Payment Options
  - Pay Online
- Reports
  - Tax Bill/Pmt Coupon
  - Payment Receipt
  - Tax Receipt
  - Tax Statement

Owner History

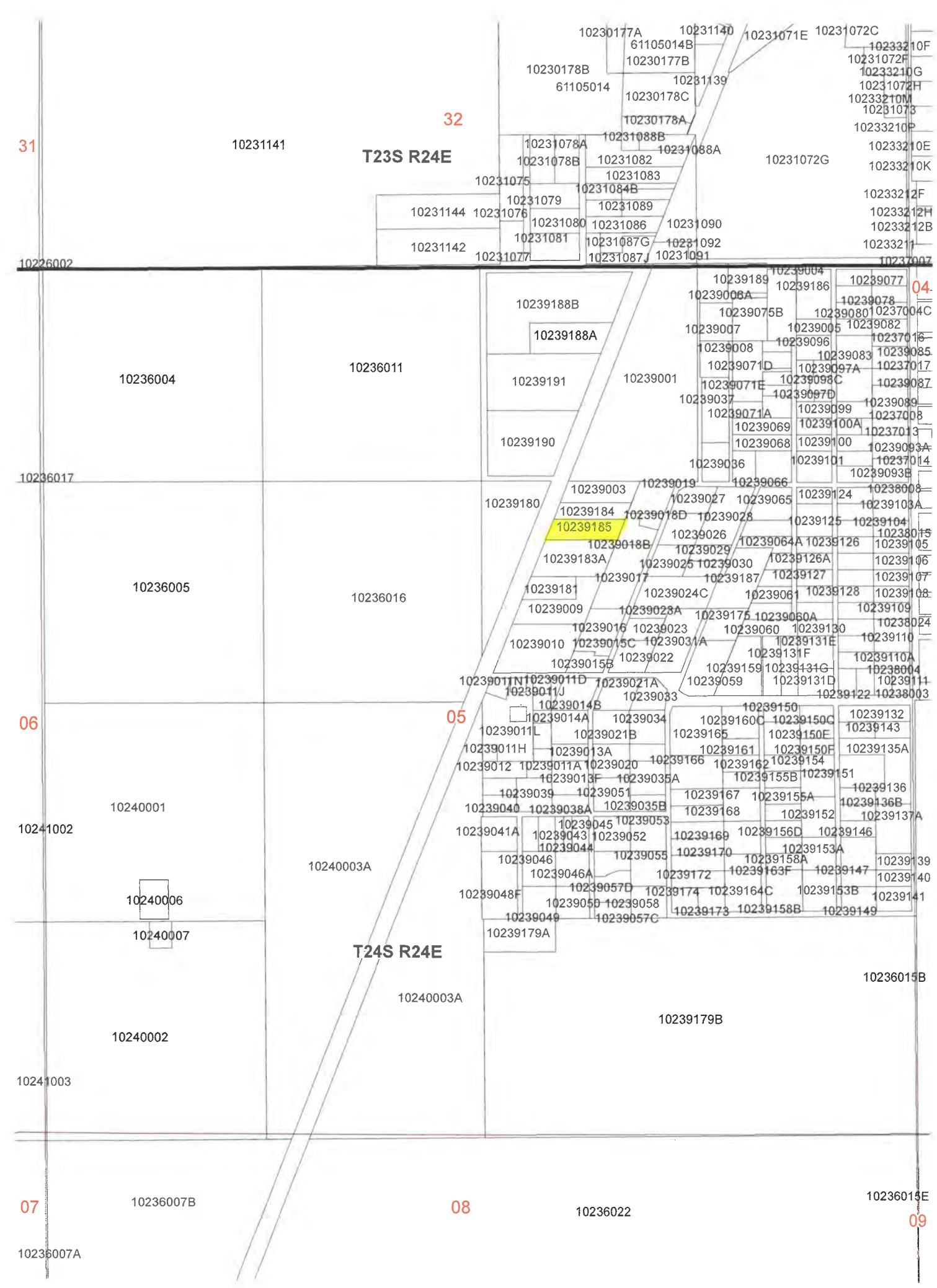
Ownership information is provided by the Cochise County Assessors office. Clicking the link below will direct you to their website where you can request a change to the current owner mailing address information.

Update Mailing Address Information

Effective Date	Owner Name & Address
09/21/2010	COOPER THERESA PO BOX 1417 ARIZONA CITY, AZ 85223
09/25/2008	LAEDING THERESA ANN & DONOVAN DALE %THERESA COOPER PO BOX 1417 ARIZONA CITY, AZ 85223
09/25/2008	REVOCABLE TRUST (THERESA COOPER) %THERESA COOPER PO BOX 1417 ARIZONA CITY, AZ 85223
10/15/2007	REVOCABLE TRUST (THERESA COOPER) %THERESA COOPER 9325 CR 160 SALIDA, OH 81201
10/15/2007	LAEDING THERESA ANN & DONOVAN DALE %THERESA COOPER 9325 CR 160 SALIDA, OH 81201
09/21/2005	LAEDING THERESA ANN & DONOVAN DALE 9325 CR 160 SALIDA, OH 81201
09/21/2005	REVOCABLE TRUST 9325 CR 160 SALIDA, OH 81201
08/29/2002	GIANETTO REVOCABLE TRUST PO BOX 4517 BISBEE, AZ 85603
08/29/2002	GIANETTO WILLIAM G TRUSTEE BOX 4517 BISBEE, AZ 85603
08/29/2002	LAEDING DON & THERESA A PO BOX 4006 BISBEE, AZ 85603
04/09/2002	LAEDING THERESA ANN & DONOVAN DALE PO BOX 4006 BISBEE, AZ 85603
04/09/2002	REVOCABLE TRUST PO BOX 4006 BISBEE, AZ 85603

1 | 20 items per page | 1 - 12 of 12 items

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T23S R24E
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10231141
10230177A
10231140
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Printed: 9/18/2020 11:03:14 AM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:

TANNER WELL SERVICE, LLC
P.O. BOX 2234
SIERRA VISTA, AZ 85636

Receipt #: 21-75755
Office: MAIN OFFICE
Receipt Date: 09/18/2020
Sale Type: MAIL
Cashier: WRJDL

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
67489	122221	4439-TT	Notice of intention to drill a well that will not	232988	1	100.00	100.00
					RECEIPT TOTAL:		**100.00**

Payment type: CHECK
Amount Paid: $100.00
Payment Received Date: 09/18/2020

Check # 9288

Notes:

No refund without valid receipt