



Sierrita Operations
Environment, Land & Water Department
6200 West Duval Mine Road
PO Box 527
Green Valley, Arizona 85622-052

September 1, 2010

Via Certified Mail # 7009 3410 0002 3634 4125
Return Receipt Requested

Ms. Cynthia S. Campbell
Arizona Department of Environmental Quality
Water Quality Compliance Section
1110 West Washington Street
Phoenix, Arizona 85007-2935

Re: Mitigation Order on Consent Docket No. P-50-06 – Mitigation Plan

Dear Ms. Campbell:

Per your request, Freeport-McMoRan Sierrita Inc. (Sierrita) is providing a detailed description of the issues we have encountered in the implementation phase of Alternative 5. The implementation phase of Alternative 5 has consisted of finalizing the conceptual wellfield design; and the bidding, contracting, and startup of the wellfield engineering design and well drilling programs. Sierrita submitted a letter to ADEQ dated March 26, 2010 submitting a detailed schedule (Gantt Chart) developed for these tasks and activities. Although the previous estimated schedule was developed based upon extensive study and planning, Sierrita was aware that it had potential to change due the complexity of the project. Several issues associated with engineering design and well drilling have caused project delays, as described in this memorandum. However, Sierrita is still strongly committed to meeting its major milestones, including having the mitigation wells and associated conveyance system on-line by July 1st, 2013.

As a result of these issues, Sierrita is modifying the proposed schedule submitted on March 26, 2010.

Wellfield Engineering Design of Pipelines and Pumping Facilities

Sierrita experienced delays in bidding the wellfield engineering design due to logistical issues involving development of new information that was essential for potential vendors to develop accurate proposals. The new information consisted of determining final locations for wells based on the logistical constraints of land ownership and access restrictions (without significantly deviating from conceptual design locations), determining and planning access to the well sites, and identification of a power provider for the wells. Due to these minor issues, the contract for the engineering design was not awarded until mid-May and work started shortly thereafter.

An additional delay in the wellfield engineering design occurred because of multiple changes in the routing of the planned pipeline that will convey water from the mitigation wells to Sierrita. Initially, Sierrita had planned to run the conveyance pipeline from the mitigation wells along an existing utility corridor between the current tailings impoundment and the planned, new tailing impoundment. After the wellfield engineering design had commenced, preliminary work on the Feasibility Study for the new tailings impoundment concluded that leaving the existing utility corridor in place would substantially decrease the storage capacity of the new tailings impoundment. Based on this information, the wellfield engineering design was modified to re-route the pipeline.

After a few weeks working under this new directive, the Feasibility Study contractor determined that the cost for relocation of the utility lines in the existing corridor was too high, which forced Sierrita to re-design the pipeline according to the original plan. Because of these multiple changes in the design basis, the wellfield engineering design fell behind schedule. The engineering design of the conveyance system for the four new IW-wells is expected to be completed before the end of November.

Well Installation

Installation of the new IW wells was delayed to respond to new hydrogeologic information obtained during installation of a replacement well for IW-5 near the proposed locations of IW-27 and IW-28. Replacement well IW-5A was installed as part of Sierrita's well replacement strategy to improve the efficiency of the existing interceptor wellfield. In April 2010, work was started on replacement well IW-5A. After well completion, it was determined that production rate of IW-5A was only between 60 and 80 gallons per minute (gpm) which was less than the expected production rate of several hundred gpm. The cause of the low production was attributed to indurated material (bedrock or cemented basin fill) over much of the screened length of the well. Because replacement well IW-5A is located in the area where the conceptual wellfield design placed the IW-27 and IW-28 wells, Sierrita was concerned that the same low production rates may be encountered if the new wells were drilled at those locations. It was determined that the best course of action was to drill two exploratory boreholes in the area to evaluate the water production potential at the IW-27 and IW-28 sites. Information gained from the exploration borehole would then be used to optimize well designs for IW-27 and IW-28.

The bid for the four new IW wells was delayed while the scope of work was developed for the exploration boreholes. Drilling of both the new IW- wells and the two exploratory wells is scheduled to begin in late August or early September.

Lastly, some of the mitigation wells (four MC wells in the case of the State Land Option and two MC wells in the case of the Non-State Land Option) had to be moved slightly from the locations identified by the conceptual wellfield design because the well sites were located in areas that were inaccessible. Sierrita used the numerical groundwater flow model to evaluate the effect of alternate well locations on the predicted plume capture and migration over time. The simulation results showed only minor differences in the plume location over time compared to the results of the conceptual design. The differences do not appear to significantly impact the short- or long-term performance of the wellfield design. The attached map shows the new and original locations. Attachment A contains figures showing the results of simulations using the revised well locations for both the State Land and Non-State Land Options.

Updated Project Schedule

Due to the issues described above, Sierrita is providing an updated Gantt Chart showing the schedule for the Mitigation Plan Implementation (Attachment B).

Please do not hesitate to contact me at (520) 393-4435 or Mr. Stuart Brown at (503) 675-5252 if you have any question regarding this submittal.

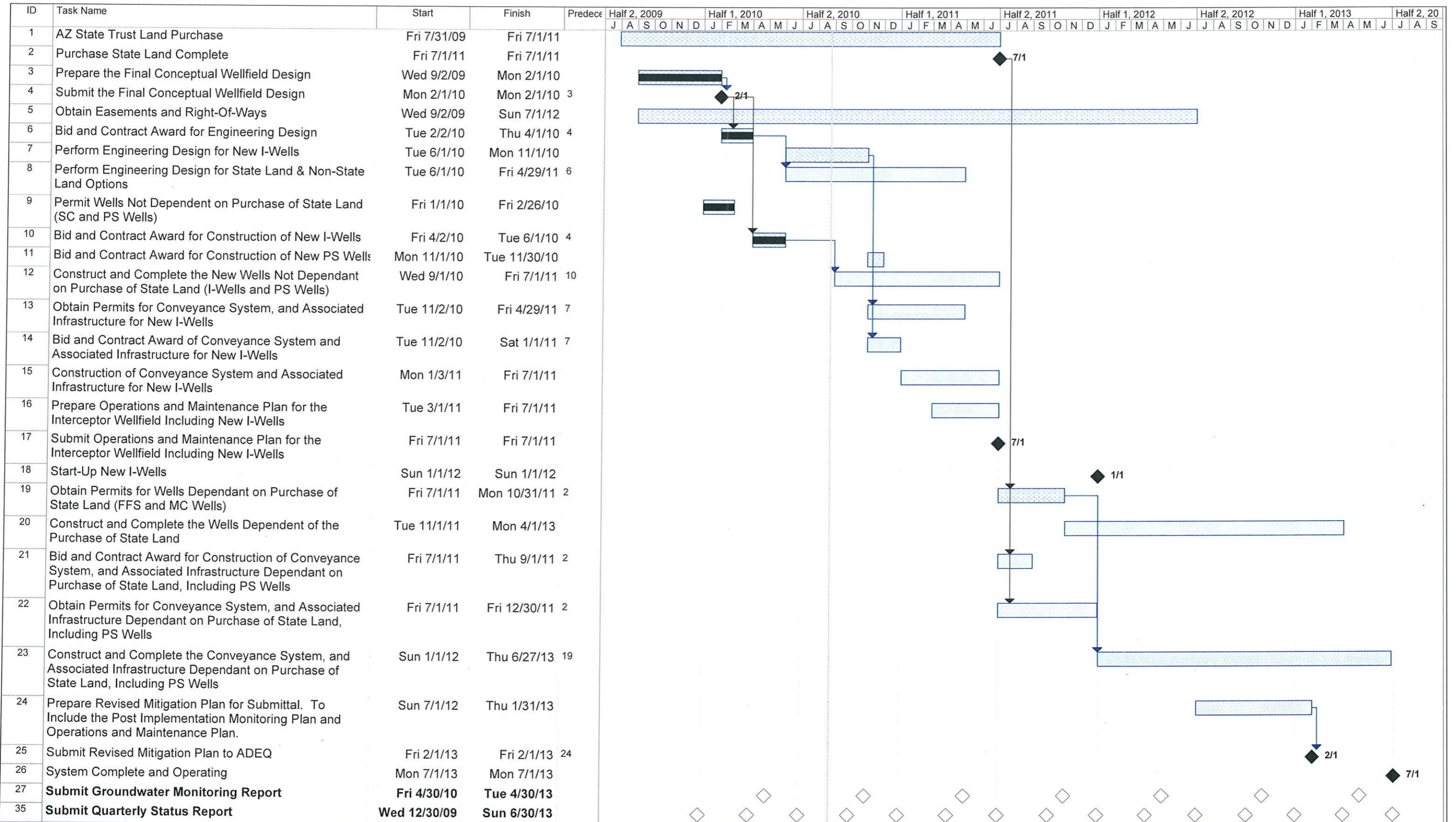
Sincerely,


Martha G. Mottley
Chief Environmental Engineer

MGM/ms
Attachments (2)
20100901_001

xc: Henry Darwin, Arizona Department of Environmental Quality
John Broderick, Sierrita
Ned Hall, FCX
Stuart Brown, FCX
Jim Norris, Clear Creek Associates

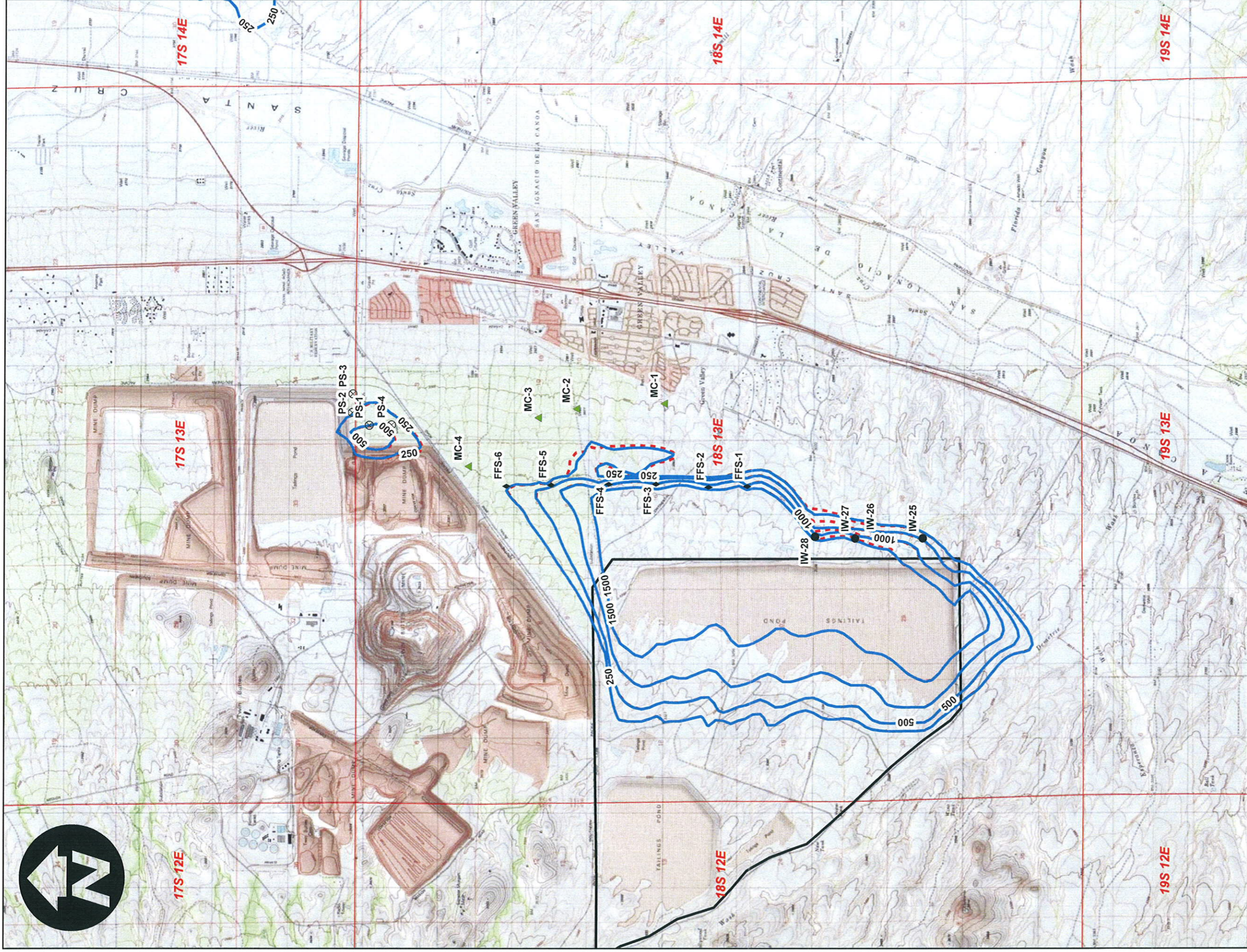
Attachment A
State Land and Non-State Land Options Simulation Results



Project: 20100819.mpp
Date: Tue 8/24/10
Draft

Task		Progress		Summary		External Tasks		Deadline	
Split		Milestone		Project Summary		External Milestone			

Attachment B
Activities Related to Mitigation Plan Gantt Chart



Legend

State Land Option Westland Field Adjusted Locations

Well_Type

- ◆ FFS
- IW
- ▲ MC
- ⊗ PS

- 2060 Sulfate Concentration Contour mg/l Revised Well Locations
- - - 2060 Sulfate Concentration Contours mg/l Original Well Locations
- PDSTI_shp

Figure 3

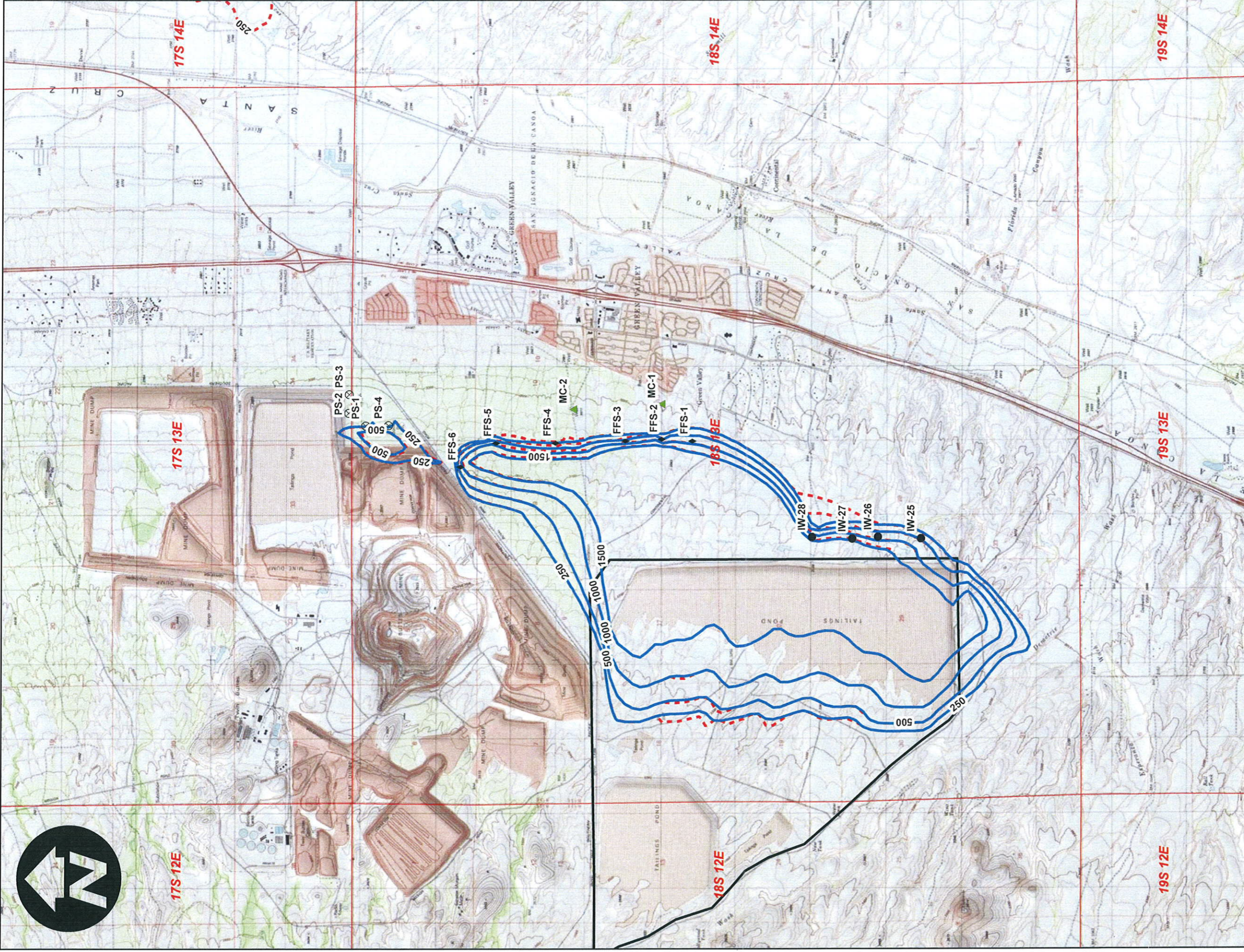
Sierrita Consent Order

SULFATE CONTOURS IN 2060 FOR ORIGINAL
STATE LAND OPTION & AND STATE LAND OPTION
WITH REVISED WELL LOCATIONS



**CLEAR
CREEK
ASSOCIATES**

July 08, 2010
SWC



Legend

Non-State Land Option Westland Field Adjusted Locations

Well_Type

◆ FFS

● IW

▲ MC

⊗ PS

— 2060 Sulfate Concentration Contours mg/l Revised Well Locations

- - - 2060 Sulfate Concentration Contours mg/l Original Well Locations

— PDSTI_shp

Figure 4

Sierrita Consent Order

**SULFATE CONTOURS IN 2060 FOR ORIGINAL
NON-STATE LAND OPTION & AND NON-STATE LAND OPTION
WITH REVISED WELL LOCATIONS**



**CLEAR
CREEK
ASSOCIATES**

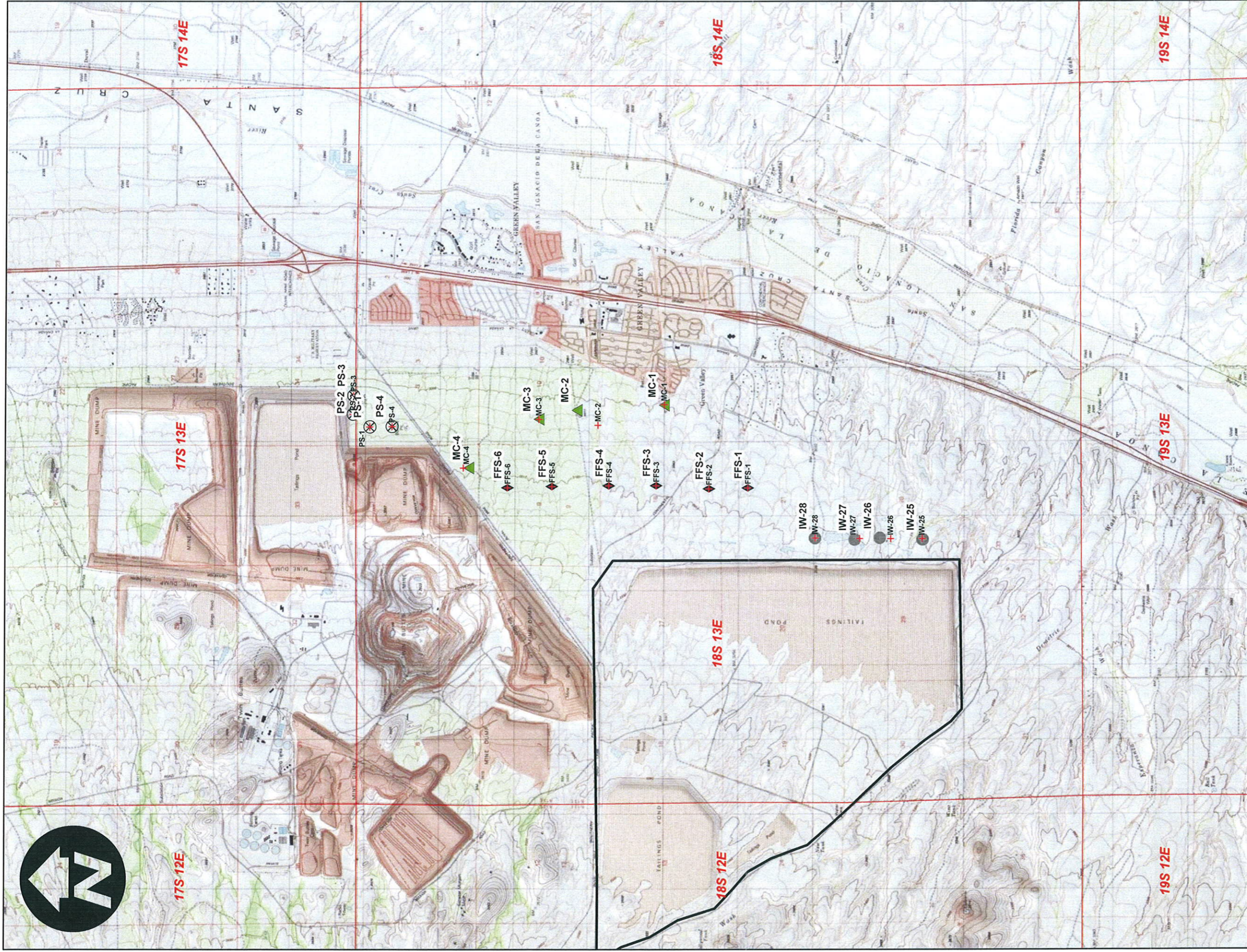


Figure 5

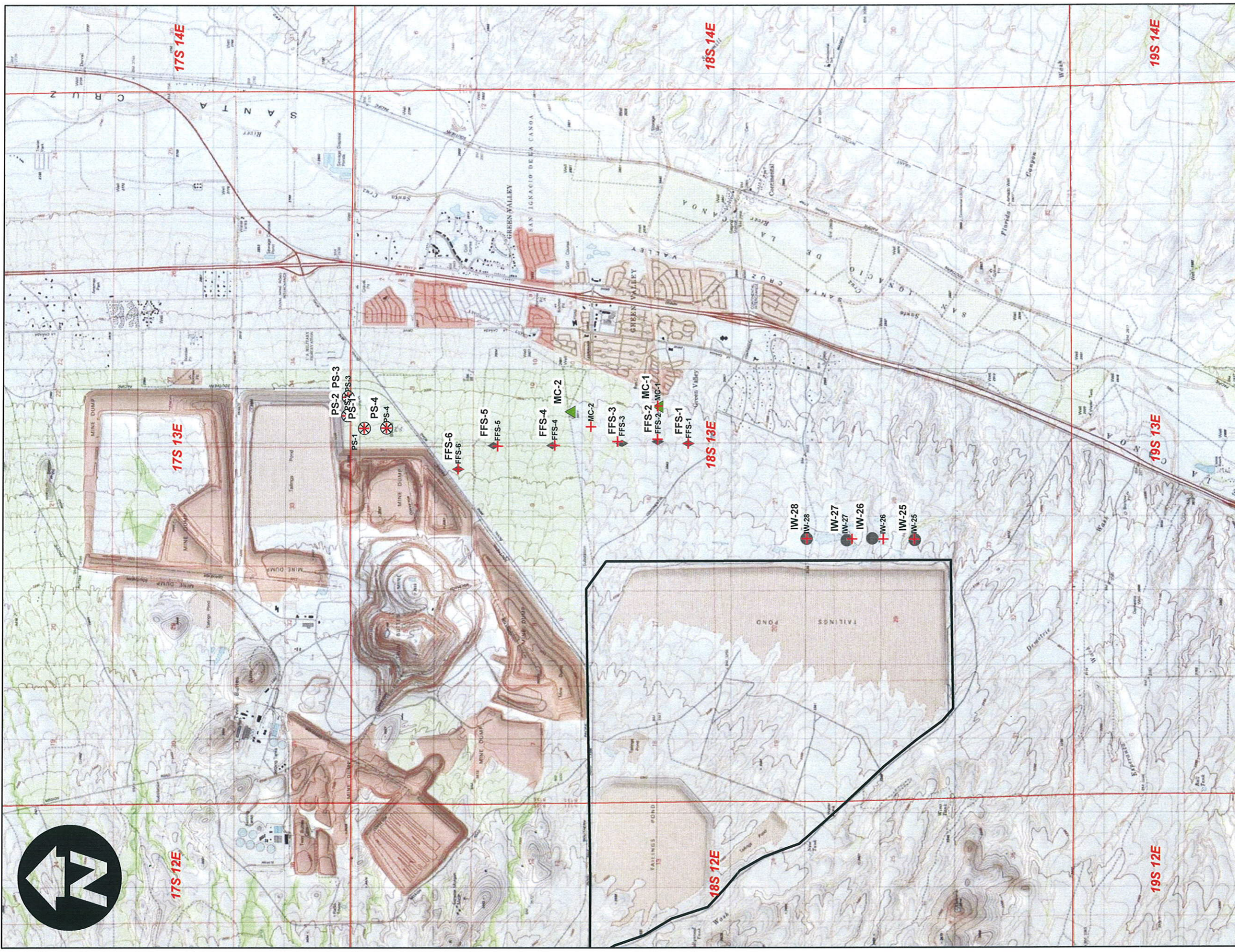
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STATE LAND OPTION - - ORIGINAL HGC WELL LOCATIONS
VS. WESTLAND FIELD ADJUSTED WELL LOCATIONS

Legend
 + HGC Original State Land Locations
 State Land Option Westland Field Adjusted Locations

Well_Type
 ◆ FFS
 ● IW
 ▲ MC
 ⊗ PS
 — PDSTI_shp





Legend

- + HGC_NSL_locations
- Non-State Land Option Westland Field Adjusted Locations**
- Well_Type**
- ◆ FFS
- IW
- ▲ MC
- PS
- PDSTI_shp

Figure 6

Sierrita Consent Order

NON-STATE LAND OPTION -- ORIGINAL HGC WELL LOCATIONS
VS. WESTLAND FIELD ADJUSTED WELL LOCATIONS

