



**Pacific Gas and
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October 14, 2005

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Colorado River Basin Region
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Subject: Interim Measures Compliance Monitoring Program
Groundwater Monitoring Report, Third Quarter 2005
PG&E Topock Compressor Station, Needles, California

Dear Mr. Shopay and Mr. Perdue:

Enclosed is the *Groundwater Monitoring Report for Third Quarter 2005* for the Interim Measure Compliance Monitoring Program at the PG&E Topock Compressor Station. This monitoring report presents the results of the third quarter 2005 CMP groundwater monitoring events, and has been prepared in conformance with RWQCB Order No. R7-2004-0103, as well as Condition 16 in DTSC's July 15 letter.

Reporting under this quarterly report does not contain an requirement for analysis, but only a discussion of values that exceeded action levels. During the third quarter 2005, no samples exceeded the Cr(T) action level of 28 µg/L, the Cr(VI) action level of 33 µg/L, or the TDS action level of 10,800 mg/L which were established in the July 15, 2005 letter from DTSC. Occasional detections exceeded action levels for one of the three monthly events, but in most cases the value returned to below action levels the following month. Single-month exceedances were noted for aluminum in well OW-5D; for copper in wells OW-1M, OW-1D, OW-2M, OW-2D, OW-5S, OW-5M and OW-5D; for lead in well OW-1S; for boron in well OW-1D; and for potassium in well OW-1D; for sulfate in well OW-2D, and for nitrate in well OW-5S. Concentrations of fluoride and nitrate in well OW-2S exceeded action levels for all sample dates (pre and post injection), indicating that the natural variation in this well is outside of the range of values that were used to calculate the action levels.

The exceedance values noted here provide additional insight into the variability of naturally occurring parameter concentrations in the injection wellfield area. According to the July 15, 2005 conditional approval letter from DTSC, background values and the methodology for

determining action levels must be re-examined using all available analytical data collected at the observation and compliance wells, including these monthly sampling events.

Please contact me at (805) 546-5243 if you have any questions on the performance monitoring program.

Sincerely,

A handwritten signature in blue ink that reads "Julie Edwards for Yvonne Meek". The signature is fluid and cursive, with the first name "Julie" being more prominent.

cc. Jose Cortez, RWQCB
Liann Chavez, RWQCB
Kate Burger/ DTSC

Enclosure

Compliance Monitoring Program Groundwater Monitoring Report, Third Quarter 2005

**PG&E Topock Compressor Station
Needles, California**

Prepared for
Pacific Gas and Electric Company

October 14, 2005

CH2MHILL

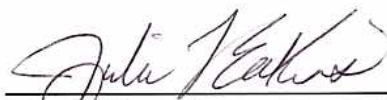
**Compliance Monitoring Program
Groundwater Monitoring Report
Third Quarter 2005**

**PG&E Topock Compressor Station
Needles, California**

**Prepared for
Pacific Gas and Electric Company**

October 14, 2005

This report was prepared under the supervision of a
California Civil Engineer



Julie Eakins, License No. C 47243



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Acronyms and Abbreviations

CACA	Corrective Action Consent Agreement
CCR	California Code of Regulations
CMP	Compliance Monitoring Program
COC	contaminant of concern
Cr(T)	total dissolved chromium
Cr(VI)	hexavalent chromium
CRBRWQCB	California Regional Water Quality Control Board Colorado River Basin Region
CW-#	compliance monitoring wells
DTSC	California Department of Toxic Substances Control
HT	holding time
µg/L	micrograms per liter
MRP	Monitoring and Reporting Program
MS	Matrix spike
ND	nondetect
OW-#	observation monitoring wells
PG&E	Pacific Gas and Electric Company
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act of 1976
RFI	RCRA facility investigation
RPD	relative percent deviation
SAP	Sampling and Analysis Plan
TDS	total dissolved solids
USEPA	United States Environmental Protection Agency
VOC	volatile organic compound
WDR	Waste Discharge Requirements

SECTION 1.0

Introduction

Pacific Gas and Electric Company (PG&E) is implementing an Interim Measure (IM) to address chromium concentrations in groundwater at the Topock Compressor Station near Needles, California. The IM consists of groundwater extraction for hydraulic control of the plume boundaries in the Colorado River floodplain, and management of extracted groundwater. The groundwater extraction, treatment, and injection systems are collectively referred to as Interim Measure No. 3 (IM No. 3). Currently, the IM No. 3 facilities include a groundwater extraction system, conveyance piping, a groundwater treatment plant, and an injection well field for the discharge of the treated groundwater. Figure 1 shows the location of the IM-3 extraction, conveyance, treatment, and injection facilities.

On October 13, 2004, the California Regional Water Quality Control Board Colorado River Basin Region (CRBRWQCB) adopted Waste Discharge Requirements (WDR) Order No. R7-2004-0103, which authorized PG&E to inject treated groundwater into wells located in the East Mesa area of the Topock site. The WDRs specify effluent limitations, prohibitions, specifications, and provisions for subsurface injection. Monitoring and Reporting Program (MRP) No. R7-2004-0103 specifies the requirements for the Compliance Monitoring Program (CMP) to monitor the aquifer in the injection well area, to ensure that the injection of treated groundwater is not causing an adverse effect on the aquifer water quality. The *Groundwater Compliance Monitoring Plan for Interim Measures No. 3 Injection Area* was submitted to the CRBRWQCB and the California Department of Toxic Substances Control (DTSC) on June 17, 2005 (herein referred to as the Compliance Monitoring Plan). The Compliance Monitoring Plan provides the objectives, proposed monitoring program, data evaluation methods and reporting requirements for the CMP (CH2M HILL 2005a).

This report presents the results of the third quarter 2005 CMP groundwater monitoring events. Operation of the treatment system was conditionally approved on July 15, 2005 (DTSC 2005a), and injection began on July 31, 2005. The injection system consists of two injection wells, IW-2 and IW-3. Throughout the third quarter of 2005, treated water was injected only in IW-2. Preliminary testing indicates that either well has the capacity to accept the maximum design flow of the treatment plant. Figure 2 shows the locations of the injection wells, and the groundwater monitoring wells (observation wells and compliance monitoring wells in the CMP). Table 1 summarizes information on well construction and sampling methods for all wells in the CMP.

Under the CMP, as of September 2005 samples are collected from groundwater wells (Figure 2) according to the following schedule:

- Nine observation wells located near the IM-3 injection wellfield are sampled monthly.
- Eight compliance monitoring wells located around the IM-3 injection wellfield will be sampled on a semi-annual basis, beginning December 2005. The first sampling event for the compliance wells was conducted in September 2005.

For both monthly and semi-annual sampling events, laboratory analyses include total dissolved chromium Cr(T), hexavalent chromium Cr(VI), metals, total dissolved solids (TDS), turbidity, silica, and major inorganic cations and anions. Groundwater elevation data and field water quality data, including specific conductance, temperature, pH, oxidation-reduction potential, dissolved oxygen, turbidity and salinity, are also measured during each monitoring event (CH2M HILL 2005b).

SECTION 2

Third Quarter 2005 Monitoring Activities

This section provides a summary of the monitoring and sampling activities completed during the third quarter of 2005, and the results of field and laboratory analyses performed during these events.

Third quarter 2005 monitoring consisted of three monthly sampling events. The July sampling event occurred prior to the start of injection, and the August and September sampling events occurred after the start of injection. The July monthly event was conducted on July 25 and 26, 2005, and consisted of the following tasks:

- Nine observation monitoring wells (OW series) were sampled for laboratory analysis.
- Groundwater elevations and field water quality data were collected prior to sampling.
- One duplicate sample was collected at well OW-2M to assess field sampling and analytical quality control.

The August monthly event was conducted on August 25 and 26, 2005 and consisted of the following tasks:

- Nine observation monitoring wells (OW series) were sampled for laboratory analysis.
- Groundwater elevations and field water quality data were collected prior to sampling.
- One duplicate sample was collected at well OW-2S, to assess field sampling and analytical quality control.

The September monthly event and semiannual CMP event were conducted from September 13 through September 16, 2005 and consisted of the following tasks :

- Nine observation monitoring wells (OW series) were sampled for laboratory analysis.
- Eight compliance monitoring wells (CW series) were sampled for laboratory analysis.
- Groundwater elevations and field water quality data were collected prior to sampling.
- Duplicate samples were collected at monitoring wells OW-1M and OW-2M, to assess field sampling and analytical quality control.

The sampling methods, procedures, field documentation of the CMP sampling, water level measurements, and field water quality monitoring were performed in accordance with the *Sampling, Analysis, and Field Procedures Manual, Revision 1* (CH2M HILL 2005b).

CMP groundwater samples were analyzed by Truesdail Laboratories, Inc., a California-certified analytical laboratory in Tustin, California; and EMAX Laboratories, Inc, a California-certified analytical laboratory in Torrance, California. Analytical methods, sample volumes and containers, sample preservation, and quality control sample requirements were performed in accordance with the *Sampling, Analysis, and Field Procedures*

Manual, Revision 1 (CH2M HILL 2005b). Data validation and management were conducted in accordance with the Quality Assurance Project Plan provided as Appendix D of the Sampling, Analysis, and Field Procedures Manual.

SECTION 3

Third Quarter 2005 Monitoring Results

This section summarizes the results of the CMP groundwater sampling completed during the third quarter of 2005. Figure 2 shows the locations of the CMP groundwater wells.

The data presented include results for Cr(VI), Cr(T), metals, TDS, turbidity, silica and major inorganic cations and anions. Laboratory data quality review, water level measurements, and water quality field parameter data are also presented in this section. The complete laboratory reports and analytical documentation are maintained in the project file, and are available upon request. In addition, the following information is recorded and documented in the project file: sample location, sample identification number, sampler name, sample date, sample time, laboratory performing analysis, analysis method, analysis date, and laboratory technician.

3.1 Analytical Results

Analytical results for chromium, other metals, and other inorganics are presented in Tables 2, 3 and 4, respectively, and are discussed below. Based on sampling events performed in early 2005 during design and construction of the injection well field, baseline water quality values were developed for the injection area. These values were summarized in the *Technical Memorandum: Baseline Groundwater Quality for the IM No.3 Injection Area, Topock Compressor Station*, dated June 10, 2005 (CH2M HILL 2005c). DTSC's July 15 2005 letter provided recommended target values and action levels for selected monitoring parameters, to be used until a more robust baseline data set is established (DTSC 2005a). Action levels will be re-evaluated in the addendum to the Compliance Monitoring Plan, which will be submitted in December 2005.

Action levels within the injection area were developed as a means to determine if and when injection results had an impact on a water quality parameter. Action levels are based on the assumption that any observed change in water quality are the result of injection, and not a reflection of background water quality. In light of this, at this early stage of injection it is necessary to distinguish between analytical results influenced by injection and analytical results that reflect the variability of background water quality conditions. In this monitoring report, an attempt has been made to identify which individual exceedances constitute a true exceedance of an action level, and which reflects variability in background conditions that are not the result of injection.

3.1.1 Hexavalent and Total Chromium

Table 2 presents the Cr(VI) results for groundwater in the shallow depth, mid-depth and deep wells during the third quarter 2005 CMP monthly events. For pre-injection July data in the shallow-depth wells, the maximum detected Cr(VI) concentration was 23.4 µg/L in well OW-5S. For the mid-depth wells, the maximum detected Cr(VI) concentration was 16.3 µg/L in well OW-1M. For the deep wells, the maximum detected Cr(VI) concentration was

non-detect in all wells. For post-injection August and September data in the shallow-depth wells, the maximum detected Cr(VI) concentration was 24.4 µg/L in well OW-5S. For the mid-depth wells, the maximum detected post-injection Cr(VI) concentration was 12.8 µg/L in well OW-5M. For the deep wells, the maximum detected post-injection Cr(VI) concentration was 0.61 µg/L in well OW-2D. During the third quarter 2005, no samples exceeded the Cr(VI) action level of 33 µg/L, which was established in the July 15, 2005 letter from DTSC.

For pre-injection in shallow-depth wells, the maximum detected Cr(T) concentration was 25.6 µg/L in well OW-5S. For the mid-depth wells, the maximum detected Cr(T) concentration was 18.9 µg/L in well OW-1M. For the deep wells, the maximum detected Cr(T) concentration was non-detect in all wells. For post-injection in shallow-depth wells, the maximum detected Cr(T) concentration was 25.6 µg/L in well OW-5S. For the mid-depth wells, the maximum detected post-injection Cr(T) concentration was 11.3 µg/L in well OW-5M. For the deep wells, the maximum detected post-injection Cr(T) concentration was 3.9 µg/L in well OW-5D. During the third quarter 2005, no samples exceeded the Cr(T) action level of 28 µg/L, which was established in the July 15, 2005 letter from DTSC.

3.1.2 Other Metals

Table 3 presents the metals results for the CMP groundwater wells sampled during third quarter 2005 monthly monitoring events. Metals detected in the third quarter 2005 monthly sampling included aluminum, barium, boron, copper, manganese, molybdenum, nickel, lead, vanadium, and zinc. For the observation wells, action levels were established in the July 15, 2005 letter from DTSC. In general, the detected concentrations are below action levels. Occasional detections exceeded action levels for one of the three monthly events, but in most cases the value returned to below action levels the following month. Single-month exceedances were noted for aluminum in well OW-5D; for copper in wells OW-1M, OW-1D, OW-2M, OW-2D, OW-5S, OW-5M and OW-5D; for lead in well OW-1S; for boron in well OW-1D; and for potassium in well OW-1D. For all of these exceedances, the results are considered to reflect the natural variability of background water quality, and will be included in the evaluation of background water quality.

3.1.3 Other Inorganic Analytes

Table 4 presents the results for other inorganic analytes detected in CMP groundwater wells. For the observation wells, action levels were established in the July 15, 2005 letter from DTSC. In general, the detected concentrations are below those established as action levels. Occasional occurrences exceeded the action level for one of the three monthly events, but in most cases the value returned to below action levels the following month. Single-month exceedances were noted for sulfate in well OW-2D, and for nitrate in well OW-5S. Concentrations of fluoride and nitrate in well OW-2S exceeded action levels for all sample dates (pre and post injection), indicating that the natural variation in this well is outside of the range of values that were used to calculate the action levels. For all of these exceedances, the results are considered to reflect the natural variability of background water quality, and will be included in the evaluation of background water quality.

The exceedance values noted here provide additional insight into the variability of naturally occurring parameter concentrations in the injection wellfield area. Exceedances are based on action levels that were developed using the historic database as of May 2005, indicating that the May 2005 database did not capture the entire range of natural variability. According to the July 15, 2005 conditional approval letter from DTSC, background values and the methodology for determining action levels must be re-examined using all available analytical data collected at the observation and compliance wells during the monthly sampling events. This re-examination will be performed in fourth quarter 2005, with the results from this round of sampling being used to establish revised action levels.

3.2 Analytical Data Quality Review

The laboratory analytical data generated from the third quarter 2005 monthly monitoring events were independently reviewed by project chemists, to assess data quality and identify deviations from analytical requirements. A detailed discussion of data quality for CMP sampling data is presented in the data validation reports, which are kept in the project file and are available upon request.

Matrix Interference: Matrix interference was encountered in groundwater samples from nine of the wells (CW-1D, CW-2D, CW-3D, CW-3M, CW-4D, OW-1D, OW-2D, OW-5D, OW-5M), which affected the detection sensitivity for Cr(VI) when using Method SW 7199. Eleven samples were reported as non-detect (ND), and Cr(VI) was detected in three samples at concentrations above the elevated reporting limit. Results from a total of 14 samples had raised reporting limits, due to serial dilutions that were required to overcome the matrix interference and provide acceptable matrix spike recoveries.

Matrix Spike Samples: Matrix spike (MS) acceptance criteria were met, with the following exceptions:

1. Matrix spikes were recovered at levels lower than the lower control limit in OW-5M-075 for Cr(VI), and OW-5S-003 for fluoride. 'J' flags were applied.
2. Matrix spikes were recovered at levels above the upper control limit in CW-1D-003 and CW-2D-003, both for Cr(VI). No flags were applied.

Quantitation and Sensitivity: All method and analyte combinations met the project reporting limit objectives.

Holding Time Data Qualification: All method holding time requirements were met.

Field Duplicates: All field duplicate acceptance criteria were met, with the following exceptions:

- Two alkalinity pairs - one dissolved zinc pair and one dissolved chromium pair - had relative percent deviations (RPDs) above the upper control limit. These were flagged 'J'.

Equipment Blanks: Equipment blank acceptance criteria for all methods were met.

Laboratory Duplicates: Laboratory duplicate acceptance criteria for all methods were met.

Additional Data Quality QC: Acrolein results were rejected for three samples that were analyzed for volatile organic compound (VOCs) (SW8260), due to initial calibration relative response factors below the lower control limit. The data were flagged 'R'.

The sample results had additional minor quality assurance/quality control (QA/QC) deviations, including 1,2,3-Trichloropropane and TDS results that exceeded lab QC control limits. None of these minor QC deviations result in rejected data.

Conclusion: The completeness objectives were met for all method and analyte combinations except for Acrolein, which is not a compound of interest. No significant analytical deficiencies were identified in the third quarter 2005 data. With minor exceptions, the analyses and data quality meet the project QAPP and laboratory method quality control acceptance criteria. Overall, the analytical data are considered acceptable for the purpose of the CMP.

3.3 Water Level Measurements

Table 5 presents the water level measurements and groundwater elevations collected during the third quarter 2005 monthly events.

As a requirement of the July 15, 2005 conditional approval by DTSC (DTSC 2005a), transducer water level measurements were used to produce hydrographs for each well cluster. Figures 3 to 9 hydrographs are provided to characterize the vertical gradient and hydraulic response to injection over time at the observation and compliance monitoring wells.

Average water level contour maps for shallow depth, mid-depth and deep wells are also provided as Figures 10 to 21. Water levels near the injection well are sensitive to the rate of injection, as can be seen from a cursory inspection of the hydrographs. Water levels used to produce the contour plots were taken from a select number of days in which the levels remained reasonably constant. These dates are noted on each figure.

3.4 Field Parameter Data

A field parameter meter and flow-through cell were used to measure water quality parameters during well purging and groundwater sampling. The measured field parameters included specific conductance, temperature, pH, oxidation-reduction potential, dissolved oxygen, turbidity and salinity. Table 6 summarizes the field water quality data measured during the third quarter 2005 monthly events. Field data sheets and chain of custody documentation for each event are presented in Appendix A.

SECTION 4

Status of Monitoring Activities

This section summarizes the scope and status of ongoing monitoring activities for the CMP.

4.1 Monthly Monitoring

Monthly monitoring events will continue during the fourth quarter of 2005. These events will implement the sampling and analysis scope that was presented in the June 17, 2005 Compliance Monitoring Plan. The groundwater monitoring report for fourth quarter CMP monthly monitoring events will be submitted by January 13, 2006.

4.2 Semiannual Monitoring 2005

A semiannual monitoring event will occur during December 2005. This CMP monitoring event (CM wells) will implement the sampling and analysis scope presented in the June 17, 2005 Compliance Monitoring Plan. The groundwater monitoring report for CMP semi-annual monitoring event will be submitted by January 13, 2006.

SECTION 5

References

California Department of Toxic Substances Control (DTSC). 2005a. Letter to PG&E. "Conditional Approval for the Start Up and Operation of the Interim Measures No. 3 Treatment System and Injection Wells, Pacific Gas & Electric Company, Topock Compressor Station." July 15.

CH2M HILL. 2005a. Groundwater Compliance Monitoring Plan for Interim Measure No. 3 Injection Area, Topock Compressor Station, Needles, California. June 17.

_____. 2005b. *Sampling, Analysis, and Field Procedures Manual, Revision 1*, PG&E Topock Compressor Station, Needles, California. March 31.

_____. 2005c. *Technical Memorandum: Baseline Groundwater Quality for the IM No.3 Injection Area, Topock Compressor Station*. June 10.

SECTION 6

Certification

PG&E submitted a signature delegation letter to the CRBRWQCB on August 12, 2005. The letter delegated PG&E signature authority to Mr. Curt Russell and Ms. Yvonne Meeks for correspondence regarding Board Order R7-2004-0103.

Certification Statement:

I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Signature: Yvonne Meeks
Name: Yvonne Meeks
Company: Pacific Gas and Electric Company
Title: Site Remediation
Date: Oct. 14, 2005

Tables

TABLE 1

Well Construction and Sampling Summary
PG&E Topock Compliance Monitoring Program

Well ID	Site Area	Measuring Point Elevation (ft AMSL)	Screen Interval (ft bgs)	Well Casing (inches)	Well Depth (ft btoc)	Depth to Water (ft btoc)	Sampling System	Typical Purge Rate (gpm)	Typical Purge Volume (gallons)	Pump Depth (ft bgs)	Transducer Installed	Remarks
IM Compliance Wells												
CW-1M	East Mesa	566.07	140 - 190	2 (PVC)	191.0	109.8	Dedi Redi-Flo AR	2	42	165	Active	
CW-1D	East Mesa	566.46	250 - 300	2 (PVC)	322.0	110.2	Dedi Redi-Flo AR	3	110	180	Active	
CW-2M	East Mesa	549.45	155 - 205	2 (PVC)	202.0	93.4	Dedi Redi-Flo AR	2	55	195	Active	
CW-2D	East Mesa	549.43	285 - 335	2 (PVC)	355.0	93.6	Dedi Redi-Flo AR	3	140	159	Active	
CW-3M	East Mesa	534.10	170 - 220	2 (PVC)	224.0	78.0	Dedi Redi-Flo AR	2	75	180	Active	
CW-3D	East Mesa	534.14	270 - 320	2 (PVC)	342.0	78.2	Dedi Redi-Flo AR	3	140	143	Active	
CW-4M	East Mesa	518.55	119 - 169	2 (PVC)	171.0	62.2	Dedi Redi-Flo AR	2	60	160	Active	
CW-4D	East Mesa	518.55	233 - 283	2 (PVC)	305.0	62.4	Dedi Redi-Flo AR	3	120	134	Active	
IM Observation Wells												
OW-1S	East Mesa	550.15	83 - 113	2 (PVC)	114.0	94.1	Temp Redi-Flo AR		10	100	Active	
OW-1M	East Mesa	550.36	165 - 185	2 (PVC)	189.0	94.3	Temp Redi-Flo AR	2	54	109.6	Active	
OW-1D	East Mesa	550.36	257 - 277	2 (PVC)	281.0	94.4	Temp Redi-Flo AR	3	100	111.4	Active	
OW-2S	East Mesa	548.75	71 - 101	2 (PVC)	121.0	92.7	Temp Redi-Flo AR	2	15	100	Active	
OW-2M	East Mesa	548.52	190 - 210	2 (PVC)	211.0	92.4	Temp Redi-Flo AR	3	60	111.4	Active	
OW-2D	East Mesa	549.01	310 - 330	2 (PVC)	342.0	92.7	Temp Redi-Flo AR	3	120	110.3	Active	
OW-3S	West Mesa	558.58	86 - 116	2 (PVC)	118.0	102.6	Temp Redi-Flo AR	2	30	119.3	Uncalibrated	
OW-3M	West Mesa	558.90	180 - 200	2 (PVC)	202.0	102.9	Temp Redi-Flo AR	3	54	119.6	Uncalibrated	
OW-3D	West Mesa	558.63	242 - 262	2 (PVC)	274.0	102.6	Temp Redi-Flo AR	3	90	77.7	Uncalibrated	
OW-5S	East Mesa	551.75	70 - 110	2 (PVC)	113.0	96.1	Temp Redi-Flo AR	1	9	100	Active	
OW-5M	East Mesa	551.75	210 - 250	2 (PVC)	254.0	95.3	Temp Redi-Flo AR	3	80	112.5	Active	
OW-5D	East Mesa	552.35	300 - 320	2 (PVC)	352.0	95.6	Temp Redi-Flo AR	3	135	113.2	Active	

Notes:

Depth to water shown is the most recently measured depth to water.
 Well depth, screen interval and water level depths rounded-off to whole-foot values.

BGS = below ground surface
 AMSL = above mean sea level
 BTOC = below top of polyvinyl chloride (PVC) casing
 Redi-Flo AR = adjustable-rate electric submersible pump

All CMP wells are purged and sampled using well-volume method.

TABLE 2
Chromium Results
PG&E Topock Compliance Monitoring Program

Location ID	Sample Date	SW7199	SW6020A	E120.1	E150.1
		Hexavalent Chromium	Chromium	Specific Conductance	pH
CW-01M	9/15/2005	0.0181	0.0178	5630	7.80
CW-01D	9/15/2005	ND (0.001)	0.0016	10900	7.79
CW-02M	9/15/2005	0.0156	0.0155	6370	8.01
	9/15/2005 (FD)	0.0158	0.0147	6370	8.00
CW-02D	9/15/2005	ND (0.001)	0.0016	15600	7.85
CW-03M	9/16/2005	0.0088	0.0081	8700	7.76
CW-03D	9/16/2005	ND (0.001)	ND (0.001)	18000	7.72
CW-04M	9/13/2005	0.0192	0.019	5880	7.83
CW-04D	9/13/2005	ND (0.001)	ND (0.001)	12700	7.76
MW-12	9/16/2005	0.698	0.618	3630	8.64
OW-01S	7/28/2005	0.0187	0.0188 J	2110	7.64
	7/28/2005 (FD)	0.0194	0.0235 J	2100	7.89
	8/26/2005	0.0191	0.018	2350	7.76
	9/15/2005	0.0192	0.0168	2370	7.94
OW-01M	7/27/2005	0.0163	0.0189	6070	7.84
	8/25/2005	0.0114	0.0107	6260	7.93
	9/14/2005	0.0081	0.0073	6270	7.95
	9/14/2005 (FD)	0.0081	0.0075	6270	7.95
OW-01D	7/27/2005	ND (0.001)	ND (0.0013)	10400	7.60
	8/25/2005	ND (0.001)	ND (0.0016)	10200	7.82
	9/14/2005	ND (0.001)	0.0015	9960	7.82
OW-02S	7/28/2005	0.0153	0.0148	1900	7.90
	8/26/2005	0.0189	0.0191	1890	7.94
	8/26/2005 (FD)	0.017	0.0189	1910	7.95
	9/14/2005	0.0237	0.0224	1880	8.12
OW-02M	7/28/2005	0.0054	0.0057	7070	7.95
	8/25/2005	0.0047	0.0066	6470	7.97
	9/14/2005	0.0038	0.0039	6480	7.93
OW-02D	7/28/2005	ND (0.001)	ND (0.0012)	13700	7.87
	8/25/2005	0.00061	0.0019	6240	8.20
	9/14/2005	0.00047	ND (0.001)	6440	8.15
OW-05S	7/28/2005	0.0234	0.0256	1750	8.54
	8/26/2005	0.0244	0.0251	1800	7.94
	9/13/2005	0.0235	0.0218	1780	7.98
OW-05M	7/28/2005	0.0086 J	0.0088	9110	8.88
	8/26/2005	0.0128	0.0113	9090	7.69
	9/13/2005	0.0113	0.0106	9000	7.84

TABLE 2
Chromium Results
PG&E Topock Compliance Monitoring Program

Location ID	Sample Date	SW7199	SW6020A	E120.1	E150.1
		Hexavalent Chromium	Chromium	Specific Conductance	pH
OW-05D	7/28/2005	ND (0.001)	ND (0.0012)	12300	8.89
	8/26/2005	ND (0.001)	0.0039	12100	7.63
	9/13/2005	ND (0.001)	ND (0.001)	11700	7.83

NOTES:

FD = field duplicate

ND = parameter not detected at the listed reporting limit

J = concentration or reporting limits estimated by laboratory or validation

Chromium results reported in milligrams per liter (mg/L)

Specific Conductance reported in microSiemens per centimeter (umhos/cm)

pH = pHunits

TABLE 3
Metals Results
PG&E Topock Compliance Monitoring Program

Location ID	Sample Date	Filtered SW6000/7000 series																		SW6010B						
		Aluminium	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Boron	Calcium	Iron ¹	Iron	Potassium	Magnesium	Sodium
CW-01M	9/15/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0566	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	0.0054	ND (0.05)	ND (0.0002)	0.0216	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0283	0.248	1.04	122	---	---	19.3	9.41	1430
CW-01D	9/15/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0478	ND (0.0042)	ND (0.003)	ND (0.0042)	ND (0.005)	0.0036	ND (0.05)	ND (0.0002)	0.0321	0.0055	ND (0.01)	ND (0.003)	ND (0.015)	0.0342	0.111	1.39	290	---	---	22.9	19.1	2080
CW-02M	9/15/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0481	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	0.0067	ND (0.05)	ND (0.0002)	0.0231	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0341	0.215 J	1.14	110	---	---	16.0	7.09	1330
	9/15/2005 (FD)	ND (0.052)	ND (0.005)	ND (0.01)	0.0453	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	0.0049	ND (0.05)	ND (0.0002)	0.0211	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0307	ND (0.02)J	1.06	103	---	---	14.2	6.33	1180
CW-02D	9/15/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0449	ND (0.0042)	ND (0.0042)	ND (0.0042)	ND (0.005)	ND (0.0042)	ND (0.05)	ND (0.0002)	0.0416	ND (0.005)	ND (0.01)	ND (0.0042)	ND (0.015)	0.0422	0.0262	1.74	355	---	---	30.9	13.9	2950
CW-03M	9/16/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0413	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	0.0029	ND (0.05)	ND (0.0002)	0.0242	0.0057	ND (0.01)	ND (0.003)	ND (0.015)	0.0274	0.0267	1.07	205	---	---	21.1	14.0	1550
CW-03D	9/16/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0693	ND (0.0042)	ND (0.0042)	ND (0.0042)	ND (0.005)	ND (0.0042)	0.259	ND (0.0002)	0.0292	0.0062	ND (0.01)	ND (0.0042)	ND (0.015)	0.0316	ND (0.021)	1.67	422	---	---	39.8	29.2	3030
CW-04M	9/13/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0697	ND (0.0031)	ND (0.0031)	ND (0.0031)	0.0218	0.0055	ND (0.05)	ND (0.0002)	0.0123	ND (0.005)	ND (0.01)	ND (0.0031)	ND (0.015)	0.0103	0.0315	0.906	149	---	---	20.9	10.4	1230
CW-04D	9/13/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0375	ND (0.0031)	ND (0.0031)	ND (0.0031)	0.0154	ND (0.005)	0.181	ND (0.0002)	0.026	ND (0.005)	ND (0.01)	ND (0.0031)	ND (0.015)	0.0079	0.0323	1.51	367	---	---	36.6	21.9	2490
MW-12	9/16/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.11	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	0.0057	0.107	ND (0.0002)	0.0635	0.0179	ND (0.01)	ND (0.003)	ND (0.015)	0.0522	0.0755	0.905	7.12	---	---	4.63	1.32	718
OW-01S	7/28/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0592	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.0021)	ND (0.05)	ND (0.0002)	0.0157	0.0071	ND (0.01)	ND (0.003)	ND (0.015)	0.005	ND (0.01)	0.356	66.4	0.30	ND (0.3)	12.0	11.6	277
	7/28/2005 (FD)	ND (0.052)	ND (0.005)	ND (0.01)	0.0607	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.0024)	ND (0.05)	ND (0.0002)	0.0172	0.0075	ND (0.01)	ND (0.003)	ND (0.015)	0.0106	ND (0.012)	0.414	61.9	ND (0.3)	ND (0.3)	11.3	11.0	279
	8/26/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0675	ND (0.0031)	ND (0.0031)	ND (0.0031)	ND (0.005)	ND (0.0031)	ND (0.05)	ND (0.0002)	0.0116	0.0103	ND (0.01)	ND (0.0031)	ND (0.015)	0.0068	ND (0.016)	0.276	82.7	---	---	11.5	13.5	293
	9/15/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0666	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	0.0047	ND (0.05)	ND (0.0002)	0.0096	0.0064	ND (0.01)	ND (0.003)	ND (0.015)	0.013	ND (0.02)	0.32	97.0	---	---	13.0	14.6	361
OW-01M	7/27/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0579	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.0026)	ND (0.05)	ND (0.0002)	0.027	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0147	ND (0.013)	1.24	98.6	ND (0.3)	ND (0.3)	24.3	8.99	1090
	8/25/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0218	ND (0.0031)	ND (0.0031)	ND (0.0031)	0.021	ND (0.0031)	ND (0.05)	ND (0.0002)	0.0122	ND (0.005)	ND (0.01)	ND (0.0031)	ND (0.015)	0.0122	ND (0.016)	0.914	102	---	---	17.8	7.82	1020
	9/14/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0527	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.0002)	0.0174	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0125	ND (0.02)	1.12	124	---	---	20.2	8.90	1290
	9/14/2005 (FD)	ND (0.052)	ND (0.005)	ND (0.01)	0.0504	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.0002)	0.0162	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0133	ND (0.02)	1.08	137	---	---	18.8	8.39	1250
OW-01D	7/27/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0903	ND (0.003)	ND (0.003)	ND (0.003)	0.0216	ND (0.0026)	0.292	ND (0.0002)	0.0461	0.0095	ND (0.01)	ND (0.003)	ND (0.015)	0.0137	0.0383	1.85	223	0.311	ND (0.3)	35.6	19.0	2080
	8/25/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0522	ND (0.0031)	ND (0.0031)	ND (0.0031)	0.0165	ND (0.0031)	0.194	ND (0.0002)	0.0266	ND (0.005)	ND (0.01)	ND (0.0031)	ND (0.015)	0.0172	ND (0.016)	1.39	246	---	---	24.6	16.9	1870
	9/14/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0615	ND (0.003)	ND (0.0042)	ND (0.0042)	ND (0.005)	ND (0.005)	0.17	ND (0.0002)	0.0308	ND (0.005)	ND (0.01)	ND (0.0042)	ND (0.015)	0.016	ND (0.021)	1.47	247	---	---	29.7	17.0	1990
OW-02S	7/28/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0537	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.0024)	ND (0.05)	ND (0.0002)	0.0356	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0108	ND (0.012)	0.749	37.5	ND (0.3)	ND (0.3)	9.44	5.18	274
	8/26/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0606	ND (0.0031)	ND (0.0031)	ND (0.0031)	ND (0.005)	ND (0.0031)	ND (0.05)	ND (0.0002)	0.0356	ND (0.005)	ND (0.01)	ND (0.0031)	ND (0.015)	0.0085	ND (0.016)	0.687	36.7	---	---	9.29	5.18	280
	8/26/2005 (FD)	ND (0.052)	ND (0.005)	ND (0.01)	0.0598	ND (0.0031)	ND (0.0031)	ND (0.0031)	ND (0.005)	ND (0.0031)	ND (0.05)	ND (0.0002)	0.0383	ND (0.005)	ND (0.01)	ND (0.0031)	ND (0.015)	0.0092	ND (0.016)	0.665	36.5	---	---	9.33	5.20	261
	9/14/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0625	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.0002)	0.0323	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0107	ND (0.02)	0.743	43.1	---	---	9.13	5.33	452
OW-02M	7/28/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0527	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.0024)	ND (0.05)	ND (0.0002)	0.0324	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0144	ND (0.012)	1.06	132	ND (0.3)	ND (0.3)	23.6	10.8	1050
	8/25/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0474	ND (0.0031)	ND (0.0031)	ND (0.0031)	0.0206	ND (0.0031)	ND (0.05)	ND (0.0002)	0.0229	ND (0.005)	ND (0.01)	ND (0.0031)	ND (0.015)	0.0114	0.0271	0.968	124	---	---	18.6	9.13	1100
	9/14/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0449	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.005)	ND (0.05)	ND (0.0002)	0.0215	ND (0.005)	ND (0.01)	ND (0.003)	ND (0.015)	0.0124	ND (0.02)	1.15	144	---	---	19.3	9.84	1290
OW-02D	7/28/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0546	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.0024)	0.175	ND (0.0002)	0.0512	0.0067	ND (0.01)	ND (0.003)	ND (0.015)	0.0172	ND (0.012)	1.68	296	ND (0.3)	ND (0.3)	38.3	16.2	2590
	8/25/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0211	ND (0																				

TABLE 3
Metals Results
PG&E Topock Compliance Monitoring Program

Location ID	Sample Date	Filtered SW6000/7000 series																		SW6010B						
		Aluminium	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Boron	Calcium	Iron ¹	Iron	Potassium	Magnesium	Sodium
OW-05D	7/28/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0616	ND (0.003)	ND (0.003)	ND (0.003)	ND (0.005)	ND (0.0024)	0.226	ND (0.0002)	0.057	0.0054	ND (0.01)	ND (0.003)	ND (0.015)	0.0102	ND (0.012)	1.67	248	ND (0.3)	ND (0.3)	30.7	15.7	2040
	8/26/2005	0.202	ND (0.005)	ND (0.01)	0.0458	ND (0.0031)	ND (0.0031)	ND (0.0031)	ND (0.005)	ND (0.0031)	0.103	ND (0.0002)	0.0488	0.0097	ND (0.01)	ND (0.0031)	ND (0.015)	0.0112	0.0367	1.56	223	---	---	29.2	12.4	1960
	9/13/2005	ND (0.052)	ND (0.005)	ND (0.01)	0.0538	ND (0.003)	ND (0.0042)	ND (0.0042)	0.015	ND (0.005)	0.113	ND (0.0002)	0.0425	0.0065	ND (0.01)	ND (0.0042)	ND (0.015)	0.0144	0.0227	1.59	314	---	---	32.8	16.6	2450

NOTES:

¹ Unfiltered Iron
FD = field duplicate
ND = parameter not detected at the listed reporting limit
J = concentration or reporting limits estimated by laboratory or validation
(---) = not sampled
All results reported in milligrams per liter (mg/L)

California MCL - Primary california MCL from California Safe Drinking Water standards, CAPHs, update 2002

TABLE 4
Other Organics and Inorganics Results
PG&E Topock Compliance Monitoring Program

		E120.1	E150.1	E160.1	E180.1	E300.0	E300.0	E300.0	E353.3	E310.1	E310.1	E310.1	E350.2	E370.1	SW8260	SW8270C
Location ID	Sample Date	Specific Conductance	pH	Total Dissolved	Turbidity	Chloride	Fluoride	Sulfate	Nitrate/Nitrite as Nitrogen	Alkalinity, bicarb as CaCo3	Alkalinity as carbonate	Alkalinity, total as CaCo3	Ammonia as Nitrogen	Silica	All Analytes	All Analytes
CW-01M	9/15/2005	5630	7.80	2990	1.04	1600	2.34	318	1.11	56.1	ND (5.0)	56.1	ND (0.5)	17.5	---	---
CW-01D	9/15/2005	10900	7.79	6230	ND (1.0)	3320	0.951	379	0.972	35.7	ND (5.0)	35.7	ND (0.5)	16.7	---	---
CW-02M	9/15/2005	6370	8.01	3500	1.03	1880	2.30	342	0.908	51.0	ND (5.0)	51.0	ND (0.5)	17.2	---	---
	9/15/2005 (FD)	6370	8.00	3440	ND (1.0)	1870	2.30	341	0.96	48.4	ND (5.0)	48.4	ND (0.5)	16.7	---	---
CW-02D	9/15/2005	15600	7.85	8770	1.01	4170	0.982	601	0.28	33.1	ND (5.0)	33.1	ND (0.5)	15.8	---	---
CW-03M	9/16/2005	8700	7.76	4740	ND (1.0)	2960	2.57	464	0.642	45.9	ND (5.0)	45.9	ND (0.5)	16.9	---	---
CW-03D	9/16/2005	18000	7.72	9550	ND (1.0)	4930	1.40	672	0.304	33.1	ND (5.0)	33.1	ND (0.5)	14.6	---	---
CW-04M	9/13/2005	5880	7.83	3310	ND (1.0)	1560	1.50	240	1.18	51.7	ND (5.0)	51.7	ND (0.5)	16.9	---	---
CW-04D	9/13/2005	12700	7.76	7470	ND (1.0)	3710	1.01	534	0.188	31.0	ND (5.0)	31.0	ND (0.5)	13.6	---	---
MW-12	9/16/2005	3630	8.64	2000	ND (1.0)	778	3.75	295	4.13	235	10.2	245	0.729	20.8	---	---
OW-01S	7/28/2005	2110	7.64	1320	3.96	494	2.45	114	3.20	80.3	ND (5.0)	80.3	ND (0.5)	18.6	ND	ND
	7/28/2005 (FD)	2100	7.89	1260	3.13	491	2.44	114	3.15	75.4	ND (5.0)	75.4	ND (0.5)	19.6	ND	ND
	8/26/2005	2350	7.76	1390	81.7	599	2.10	136	2.67	73.4	ND (5.0)	73.4	ND (0.5)	---	---	---
	9/15/2005	2370	7.94	1330	2.19	589	2.04	126	2.42	68.8	ND (5.0)	68.8	ND (0.5)	19.6	---	---
	OW-01M 7/27/2005	6070	7.84	3450 J	1.01	1490	2.31	311	1.01	51.1	ND (5.0)	51.1	ND (0.5)	20.4	---	---
	8/25/2005	6260	7.93	3460	ND (1.0)	1700	0.934	321	1.38	53.3	ND (5.0)	53.3	ND (0.5)	---	---	---
	9/14/2005	6270	7.95	3430	ND (1.0)	1680	1.99	325	1.35	36.2 J	ND (5.0)	36.2 J	ND (0.5)	16.7	---	---
	9/14/2005 (FD)	6270	7.95	3360	1.29	1690	2.08	328	1.35	46.5 J	ND (5.0)	46.5 J	ND (0.5)	16.3	---	---
OW-01D	7/27/2005	10400	7.60	6170 J	5.25	3200	1.14	441	0.321	39.0	ND (5.0)	39.0	ND (0.5)	15.3	---	---
	8/25/2005	10200	7.82	5730	1.55	2980	1.32	430	0.486	40.6	ND (5.0)	40.6	ND (0.5)	---	---	---
	9/14/2005	9960	7.82	5600	2.52	2910	1.16	439	0.601	36.2	ND (5.0)	36.2	ND (0.5)	15.1	---	---
OW-02S	7/28/2005	1900	7.90	1090	2.01	381	3.79	126	3.81	107	ND (5.0)	107	ND (0.5)	19.4	ND	ND
	8/26/2005	1890	7.94	1070	ND (1.0)	397	3.64	129	3.08	114	ND (5.0)	114	ND (0.5)	---	---	---
	8/26/2005 (FD)	1910	7.95	1050	ND (1.0)	399	3.68	130	3.24	114	ND (5.0)	114	ND (0.5)	---	---	---
	9/14/2005	1880	8.12	1020	2.75	418	3.59	128	3.40	103	ND (5.0)	103	ND (0.5)	20.0	---	---
OW-02M	7/28/2005	7070	7.95	4380	ND (1.0)	1900	2.19	342	0.735	51.1	ND (5.0)	51.1	ND (0.5)	16.1	---	---
	8/25/2005	6470	7.97	3710	ND (1.0)	1770	0.991	350	1.73	50.8	ND (5.0)	50.8	ND (0.5)	---	---	---
	9/14/2005	6480	7.93	3430	ND (1.0)	1730	2.22	368	2.33	41.3	ND (5.0)	41.3	ND (0.5)	15.8	---	---
OW-02D	7/28/2005	13700	7.87	9550	ND (1.0)	4100	0.966	616	ND (0.1)	34.1	ND (5.0)	34.1	ND (0.5)	15.7	---	---
	8/25/2005	6240	8.20	3580	ND (1.0)	1640	1.19	376	2.61	43.1	ND (5.0)	43.1	ND (0.5)	---	---	---
	9/14/2005	6440	8.15	3500	ND (1.0)	1770	1.78	381	2.99	38.7	ND (5.0)	38.7	ND (0.5)	13.3	---	---
OW-05S	7/28/2005	1750	8.54	1060	ND (1.0)	371	2.30	105	3.55	85.1	ND (5.0)	85.1	ND (0.5)	20.4	---	---
	8/26/2005	1800	7.94	1000	ND (1.0)	401	2.07	104	2.96	88.6	ND (5.0)	88.6	ND (0.5)	---	---	---
	9/13/2005	1780	7.98	965	1.36	392	1.98 J	98.5	2.68	80.1	ND (5.0)	80.1	ND (0.5)	20.7	---	---
OW-05M	7/28/2005	9110	8.88	5550	ND (1.0)	2470	2.74	417	0.621	38.9	ND (5.0)	38.9	ND (0.5)	17.3	---	---
	8/26/2005	9090	7.69	5150	ND (1.0)	2630	1.17	414	0.619	43.0	ND (5.0)	43.0	ND (0.5)	---	---	---
	9/13/2005	9000	7.84	5060	ND (1.0)	2580	1.07	401	0.69	41.3	ND (5.0)	41.3	ND (0.5)	17.7	---	---

TABLE 4
Other Organics and Inorganics Results
PG&E Topock Compliance Monitoring Program

		E120.1	E150.1	E160.1	E180.1	E300.0	E300.0	E300.0	E353.3	E310.1	E310.1	E310.1	E350.2	E370.1	SW8260	SW8270C
Location ID	Sample Date	Specific Conductance	pH	Total Dissolved	Turbidity	Chloride	Fluoride	Sulfate	Nitrate/Nitrite as Nitrogen	Alkalinity, bicarb as CaCo3	Alkalinity as carbonate	Alkalinity, total as CaCo3	Ammonia as Nitrogen	Silica	All Analytes	All Analytes
OW-05D	7/28/2005	12300	8.89	8970	1.20	3350	1.11	480	0.151	36.5	ND (5.0)	36.5	ND (0.5)	14.0	---	---
	8/26/2005	12100	7.63	7250	ND (1.0)	3750	1.42	516	0.241	35.4	ND (5.0)	35.4	ND (0.5)	---	---	---
	9/13/2005	11700	7.83	6640	ND (1.0)	3370	1.26	501	0.334	31.0	ND (5.0)	31.0	ND (0.5)	15.6	---	---

NOTES:
(---) = not sampled
NA = not applicable
ND = parameter not detected at the listed reporting limit
J = concentration or reporting limits estimated by laboratory or validation
R = rejected

All results reported in milligrams per liter (mg/L) except the following:
Specific Conductance = microSiemens per centimeter (umhos/cm)
pH = PHUnits
Turbidity = Nephelometric Turbidity Unit (NTU)
Acrolein = micrograms per liter (µg/L)

Table 5

Manual Water Level Measurements and Elevations, July 2005 through September 2005

PG&E Topock Compliance Monitoring Program

Location ID	Well Depth (feet BTOC)	Measuring Point Elevation (feet AMSL)	Monitoring Date & Time		Water Level Measurement (feet BTOC)	Salinity (percent)	Groundwater/Water Elevation Adjusted for Salinity (feet AMSL)
CW-01M	191	566.07	15-Sep-05	7:39 AM	109.75	0.23	456.13
CW-01D	322	566.46	15-Sep-05	9:02 AM	110.18	0.57	456.29
CW-02M	202	549.45	15-Sep-05	10:20 AM	93.36	0.37	455.96
CW-02D	355	549.43	15-Sep-05	11:27 AM	93.58	0.91	456.45
CW-03M	224	534.10	16-Sep-05	6:54 AM	78.02	0.49	456.03
CW-03D	342	534.14	16-Sep-05	7:30 AM	78.21	0.98	456.68
CW-04M	171	518.55	13-Sep-05	10:45 AM	62.23	0.38	456.18
CW-04D	305	518.55	13-Sep-05	11:16 AM	62.42	0.85	456.56
OW-01S	114	550.15	28-Jul-05	8:05 AM	93.78	0.13	456.32
			25-Aug-05	5:52 AM	93.91	0.13	456.18
			15-Sep-05	7:11 AM	94.05	0.13	456.04
OW-01M	189	550.36	27-Jul-05	8:21 AM	93.98	0.34	456.21
			25-Aug-05	6:36 AM	98.85	0.34	451.37
			14-Sep-05	8:21 AM	94.25	0.34	455.94
OW-01D	281	550.36	27-Jul-05	8:26 AM	94.23	0.62	456.13
			25-Aug-05	6:30 AM	93.82	0.62	456.53
			14-Sep-05	6:50 AM	94.40	0.62	455.95
OW-02S	121	548.75	28-Jul-05	5:45 AM	92.36	0.16	456.32
			26-Aug-05	5:37 AM	92.48	0.16	456.19
			14-Sep-05	11:46 AM	92.68	0.16	455.99
OW-02M	211	548.52	27-Jul-05	5:39 AM	92.21	0.45	456.19
			27-Jul-05	5:39 AM	92.21	0.45	456.19
			25-Aug-05	9:38 AM	91.98	0.45	456.41
			14-Sep-05	9:28 AM	92.42	0.45	455.96
OW-02D	342	549.01	27-Jul-05	6:45 AM	93.10	0.85	456.24
			27-Jul-05	6:45 AM	93.10	0.85	456.24
			25-Aug-05	9:30 AM	92.29	0.85	456.96
			14-Sep-05	10:26 AM	92.67	0.85	456.56
OW-05S	113	551.75	28-Jul-05	9:50 AM	95.24	0.20	456.46
			26-Aug-05	8:17 AM	95.38	0.20	456.31
			13-Sep-05	8:45 AM	96.12	0.20	455.58
OW-05M	254	551.75	27-Jul-05	9:00 AM	95.48	0.55	456.20
			27-Jul-05	9:00 AM	95.48	0.55	456.20
			26-Aug-05	7:06 AM	95.31	0.55	456.36
			13-Sep-05	7:40 AM	95.35	0.55	456.31
OW-05D	352	552.35	28-Jul-05	7:52 AM	96.30	0.64	456.03
			26-Aug-05	7:06 AM	96.02	0.64	456.30
			13-Sep-05	5:58 AM	95.60	0.64	456.73

NOTES:

AMSL above mean sea level

BTOC below top of polyvinyl chloride (PVC) casing

(---) data not collected or available.

Well depths rounded off to whole foot.

Table 6

Field Parameter Measurements

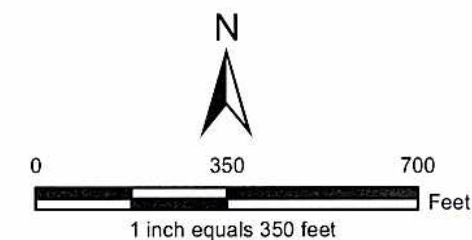
PG&E Topock Compliance Monitoring Program

Location ID	Sampling Date	Specific Conductance (µS/cm)	Temperature (°C)	pH (pH units)	ORP (mV)	Dissolved Oxygen (mg/L)	Turbidity NTU	Salinity %
CW-01M	9/15/2005	6,930	29.5	7.60	54	3.5	1.8	0.4
CW-01D	9/15/2005	13,800	30.8	7.69	21	4.5	0.6	0.8
CW-02M	9/15/2005	7,810	30.9	7.86	-37	3.4	2.6	0.4
CW-02D	9/15/2005	18,200	31.6	7.87	-102	2.7	1.4	1.1
CW-03M	9/16/2005	7,940	29.3	7.79	-60	2.0	1.3	0.4
CW-03D	9/16/2005	16,800	31.6	7.92	-274	2.0	0.6	1.0
CW-04M	9/13/2005	7,600	30.8	7.78	-32	3.4	0.4	0.4
CW-04D	9/13/2005	16,500	32.3	7.86	-187	3.1	1.0	1.0
OW-01S	7/28/2005	2,270	29.1	7.75	7	5.4	10.8	0.1
	8/25/2005	3,460	28.7	7.72	138	5.8	176.0	0.2
	9/15/2005	2,630	28.4	7.74	128	5.6	5.3	0.1
OW-01M	7/27/2005	5,700	31.7	7.93	-57	1.6	1.1	0.3
	8/25/2005	6,830	30.6	7.67	124	4.1	0.3	0.4
	9/14/2005	6,500	30.0	7.78	-6	3.8	4.1	0.3
OW-01D	7/27/2005	11,000	31.3	7.88	-178	1.2	4.2	0.6
	8/25/2005	9,010	30.9	7.85	-188	1.6	7.2	0.5
	9/14/2005	10,400	30.3	7.63	-137	2.0	4.5	0.6
OW-02S	7/28/2005	2,000	28.6	7.89	-85	2.0	9.7	0.1
	8/26/2005	2,070	29.9	7.77	-15	3.1	5.4	0.1
	9/14/2005	1,910	28.9	7.74	-3	3.3	4.9	0.1
OW-02M	7/27/2005	7,100	31.1	8.25	-77	4.9	0.3	0.4
	8/25/2005	6,950	30.8	8.03	-72	4.6	0.5	0.4
	9/14/2005	6,700	31.2	7.76	20	4.3	0.5	0.4
OW-02D	7/27/2005	14,600	33.1	7.45	-171	1.4	1.0	0.9
	8/25/2005	8,420	35.8	8.19	31	6.3	0.5	0.5
	9/14/2005	6,720	33.5	8.02	35	4.2	0.6	0.4
OW-05S	7/28/2005	1,920	32.0	8.04	-4	8.3	2.3	0.1
	8/26/2005	2,010	30.4	7.96	35	5.2	1.8	0.1
	9/13/2005	2,300	30.2	7.79	-18	8.6	7.4	0.1
OW-05M	7/27/2005	9,160	32.8	7.64	0	1.4	0.2	0.5
	8/26/2005	10,500	31.0	7.92	-23	2.0	0.7	0.6
	9/13/2005	11,900	30.8	7.81	-78	3.0	0.5	0.7
OW-05D	7/28/2005	12,900	32.0	8.73	-243	4.3	0.8	0.7
	8/26/2005	11,600	31.4	7.87	-187	1.5	1.0	0.7
	9/13/2005	15,400	30.4	7.83	-147	2.5	0.5	0.9

NOTES:

µS/cm microSiemens per centimeter
 °C degree centigrade
 ORP oxidation reduction potential
 mV millivolts
 mg/L milligrams per liter
 NTU Nephelometric Turbidity Unit
 % percentage

Figures



LEGEND

- PG&E Property Line
- Existing IM Extraction Well
- Existing IM Injection Well

FIGURE 1
LOCATIONS OF IM-3 GROUNDWATER
EXTRACTION, CONVEYANCE, AND
TREATMENT FACILITIES, JULY 2005

INTERIM MEASURES NO. 3
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

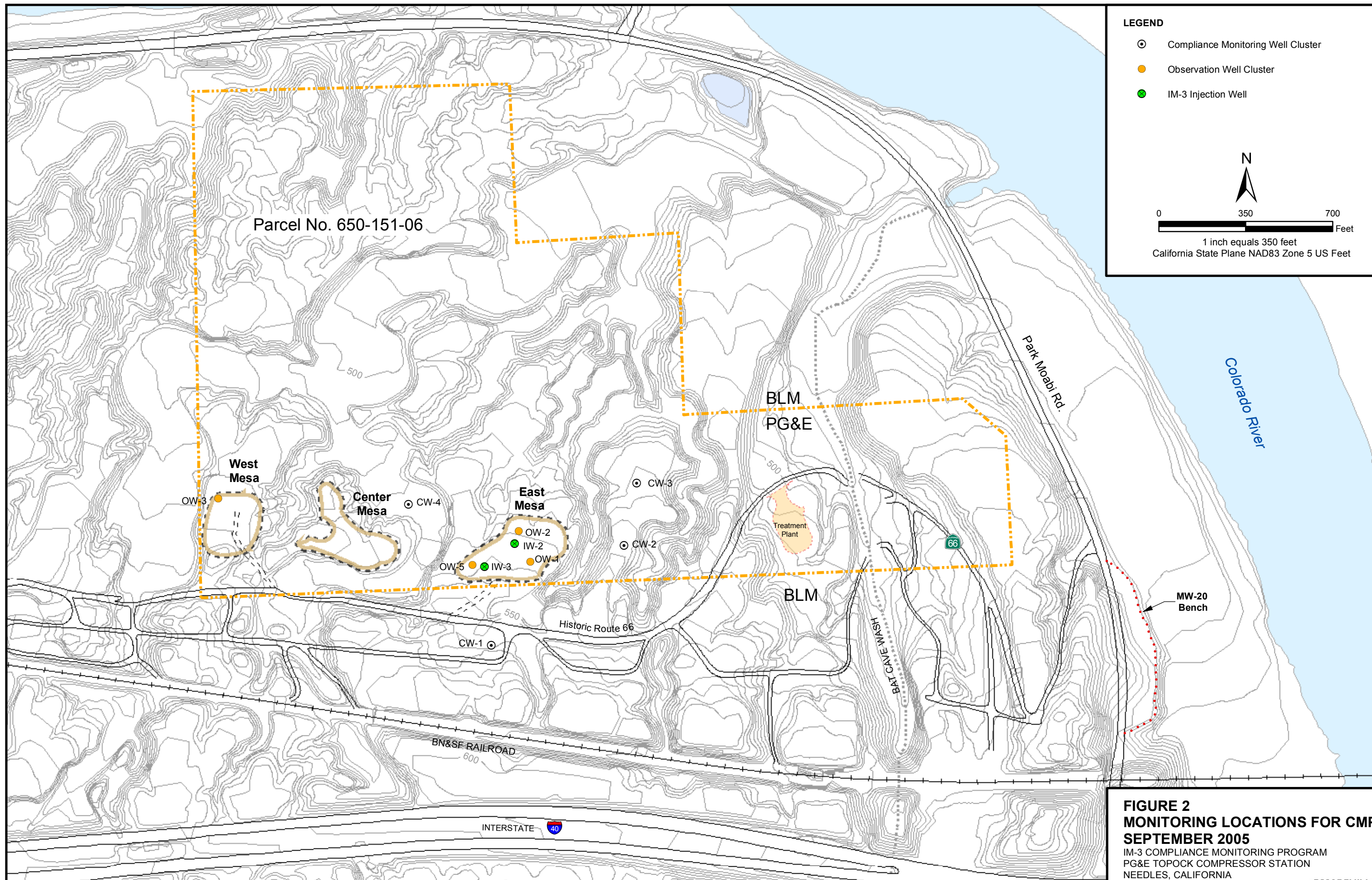


FIGURE 2
MONITORING LOCATIONS FOR CMP
SEPTEMBER 2005
 IM-3 COMPLIANCE MONITORING PROGRAM
 PG&E TOPECO COMPRESSOR STATION
 NEEDLES, CALIFORNIA

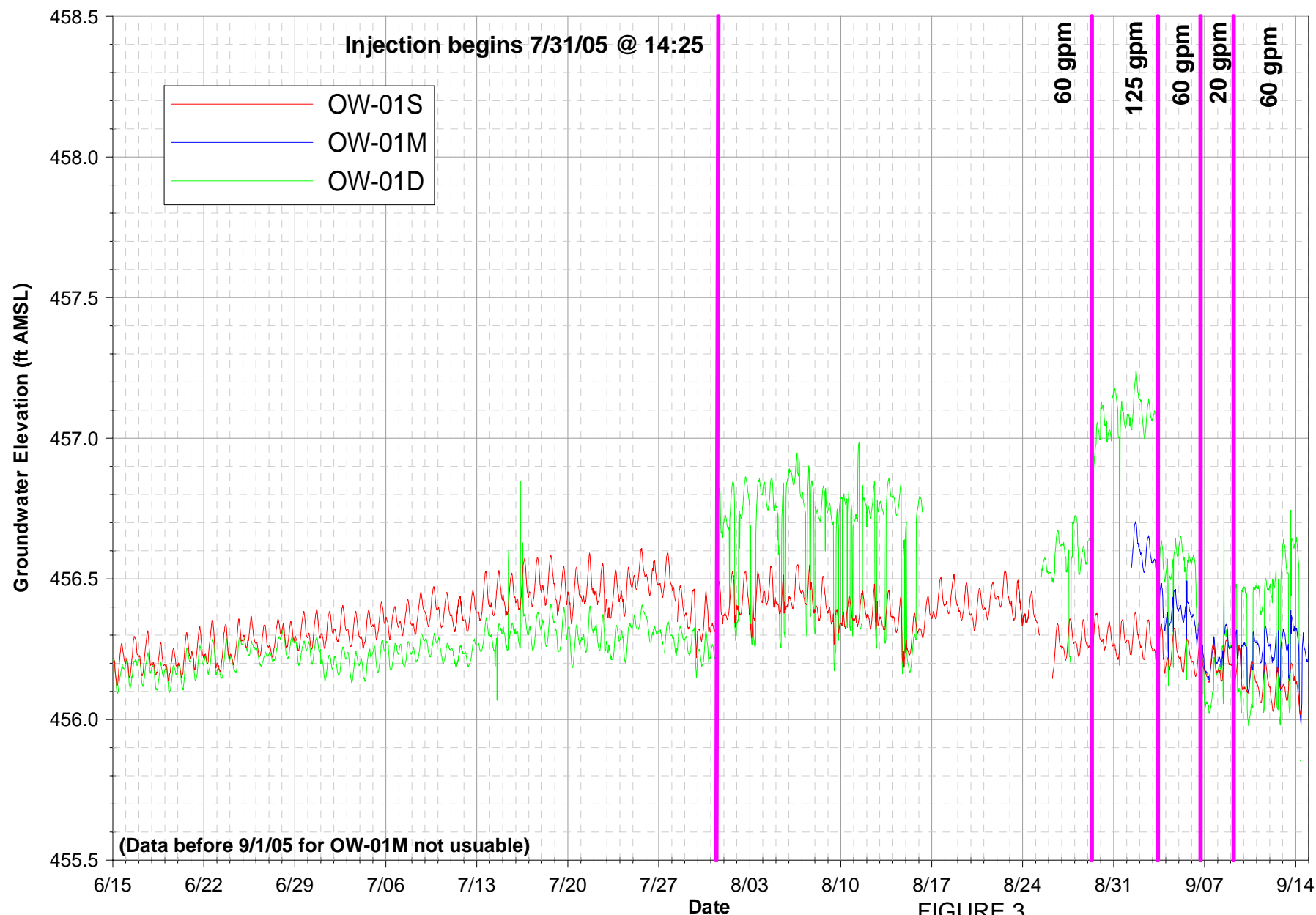


FIGURE 3

OW-01 HYDROGRAPHS

INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

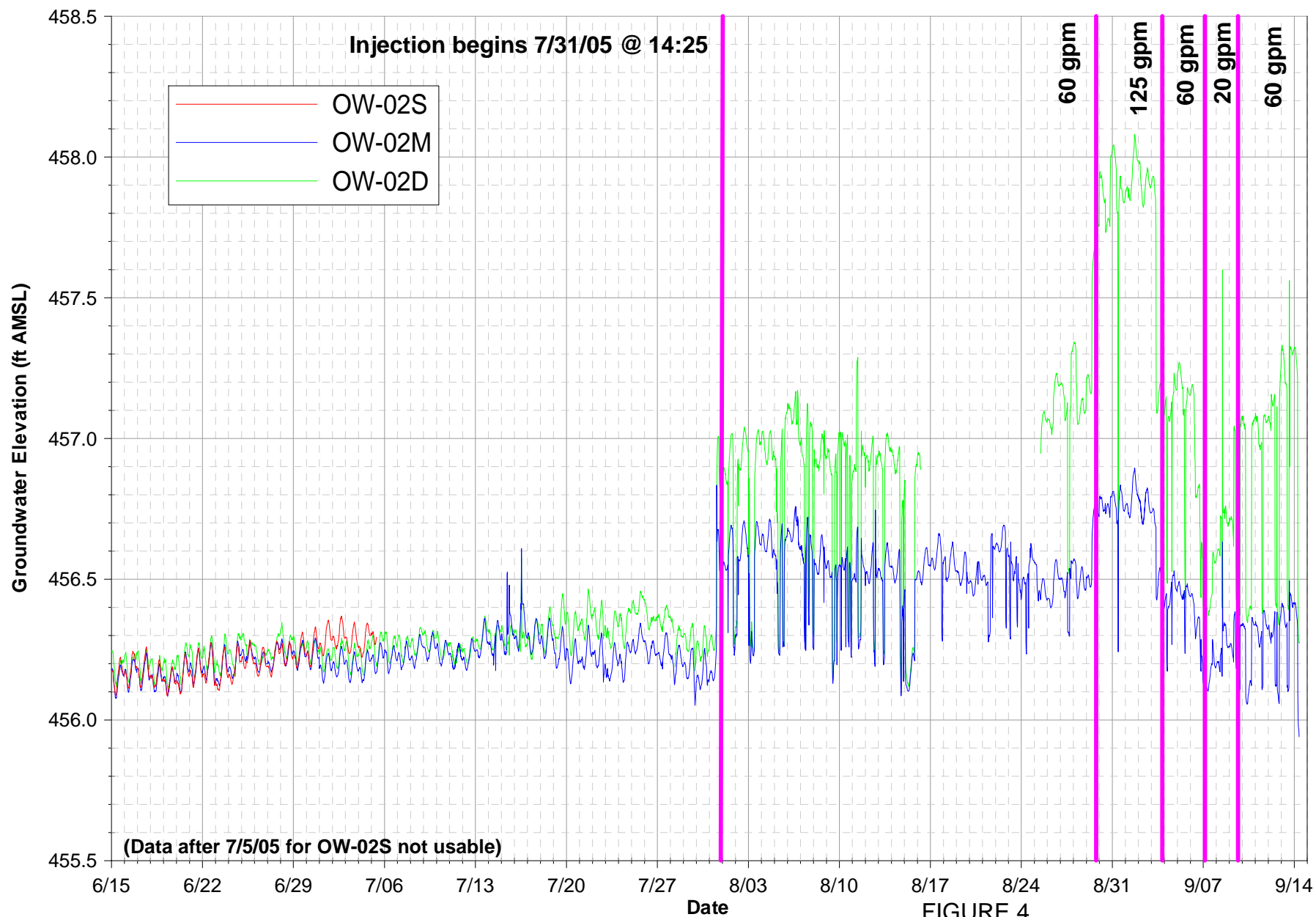
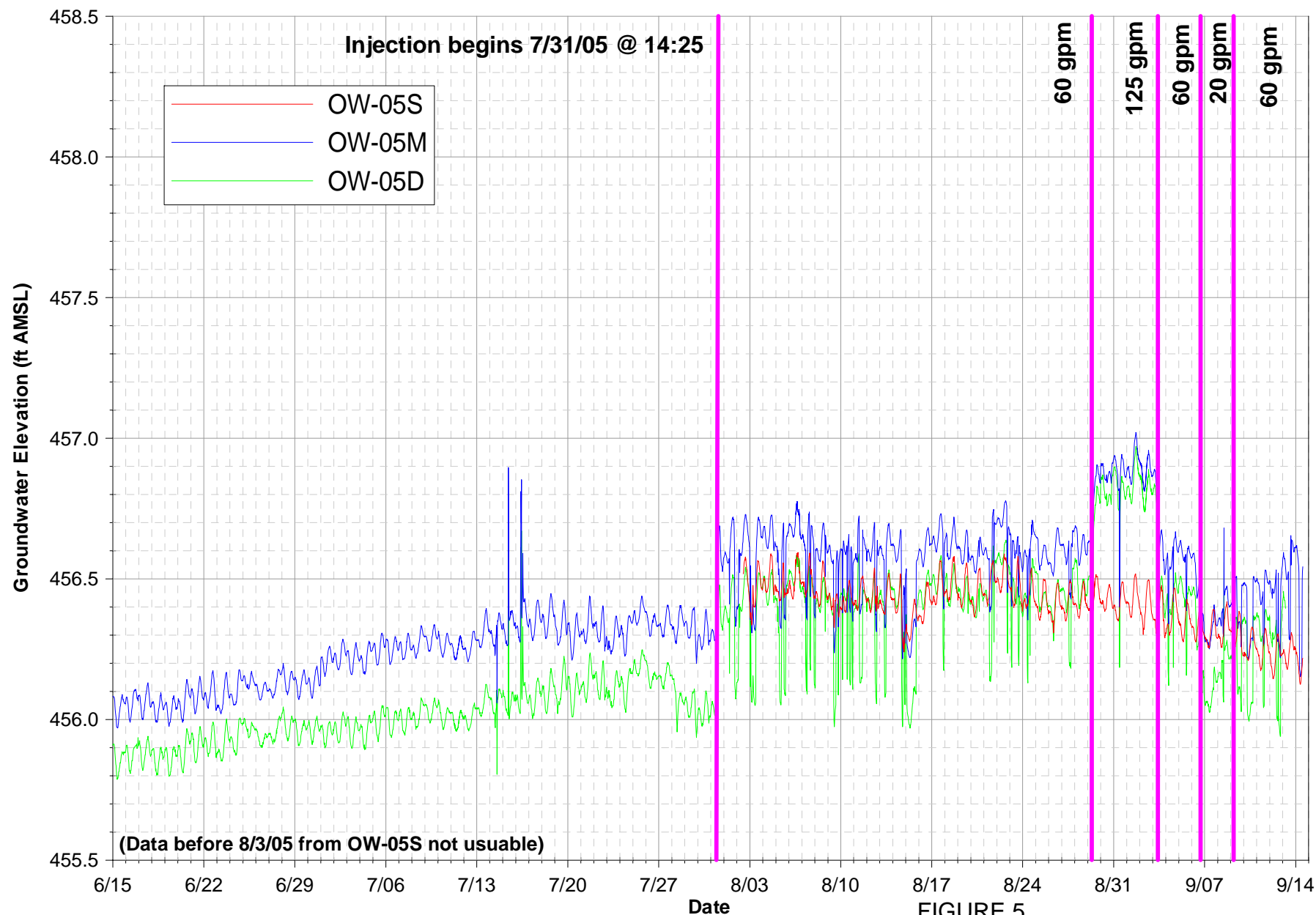


FIGURE 4

OW-02 HYDROGRAPHS

INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.



Note: Data subject to review.

FIGURE 5

OW-05 HYDROGRAPHS

INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

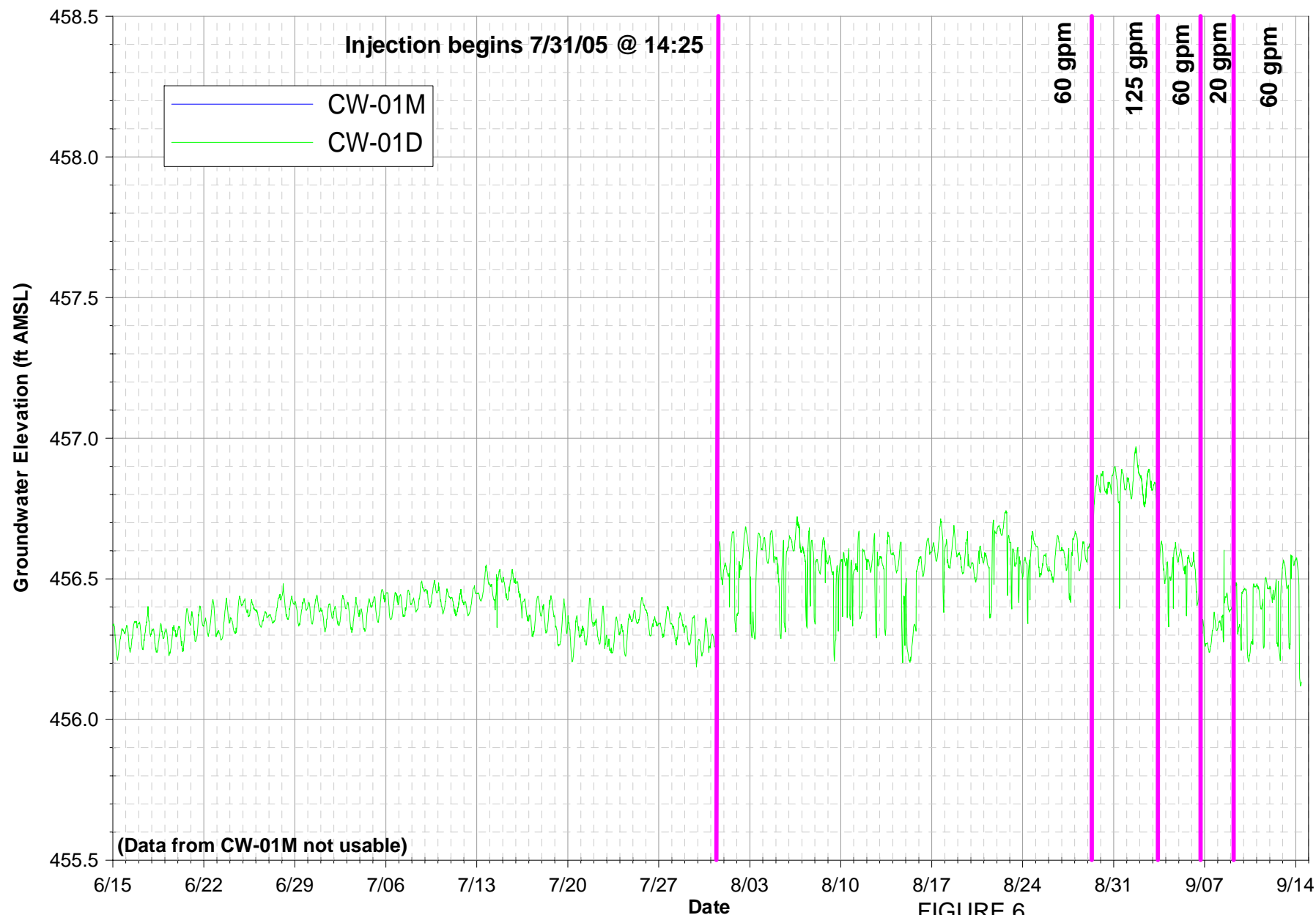
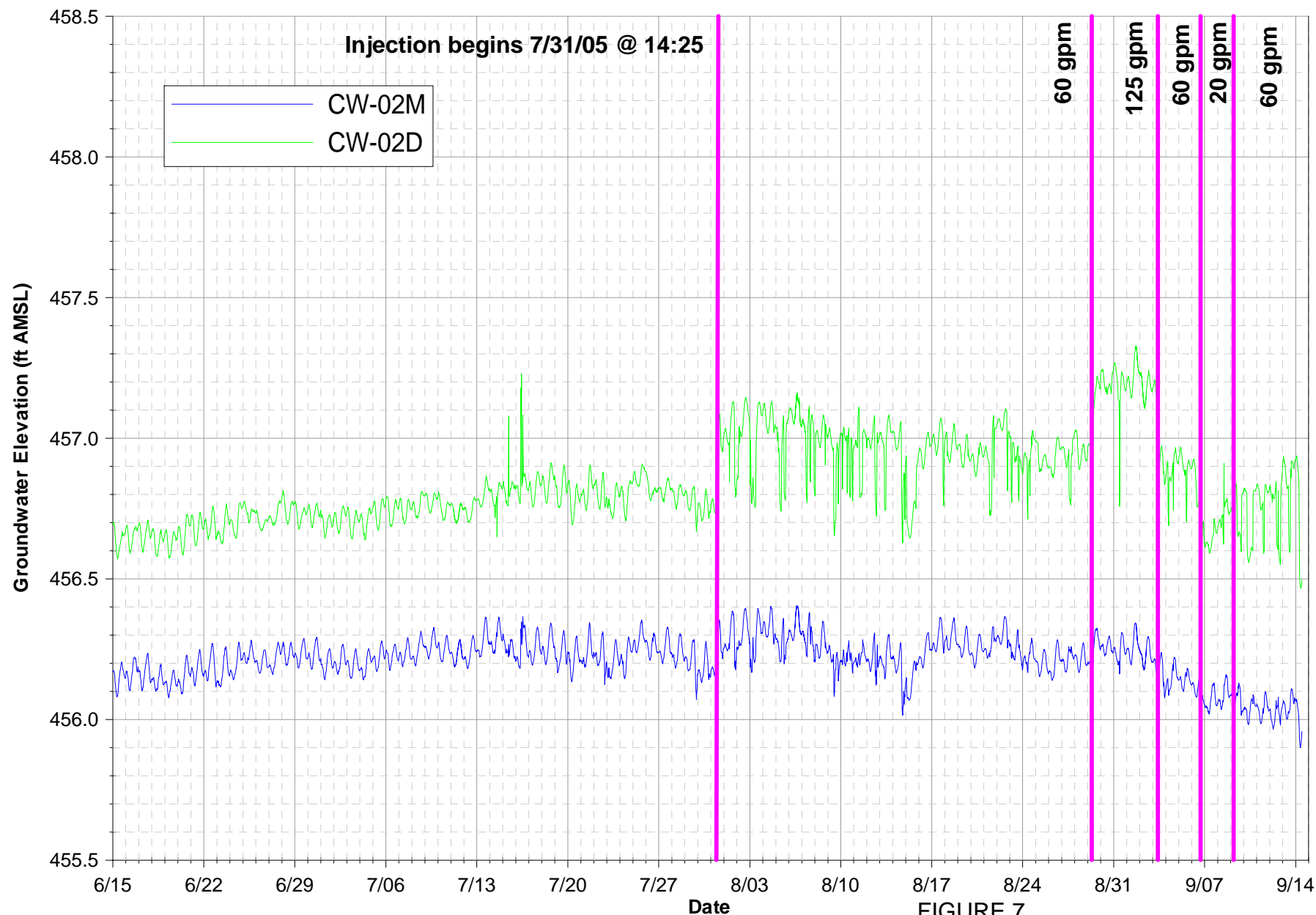


FIGURE 6

CW-01 HYDROGRAPHS

INTERIM MEASURES PERFORMANCE MONITORING
PG & E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Note: Data subject to review.

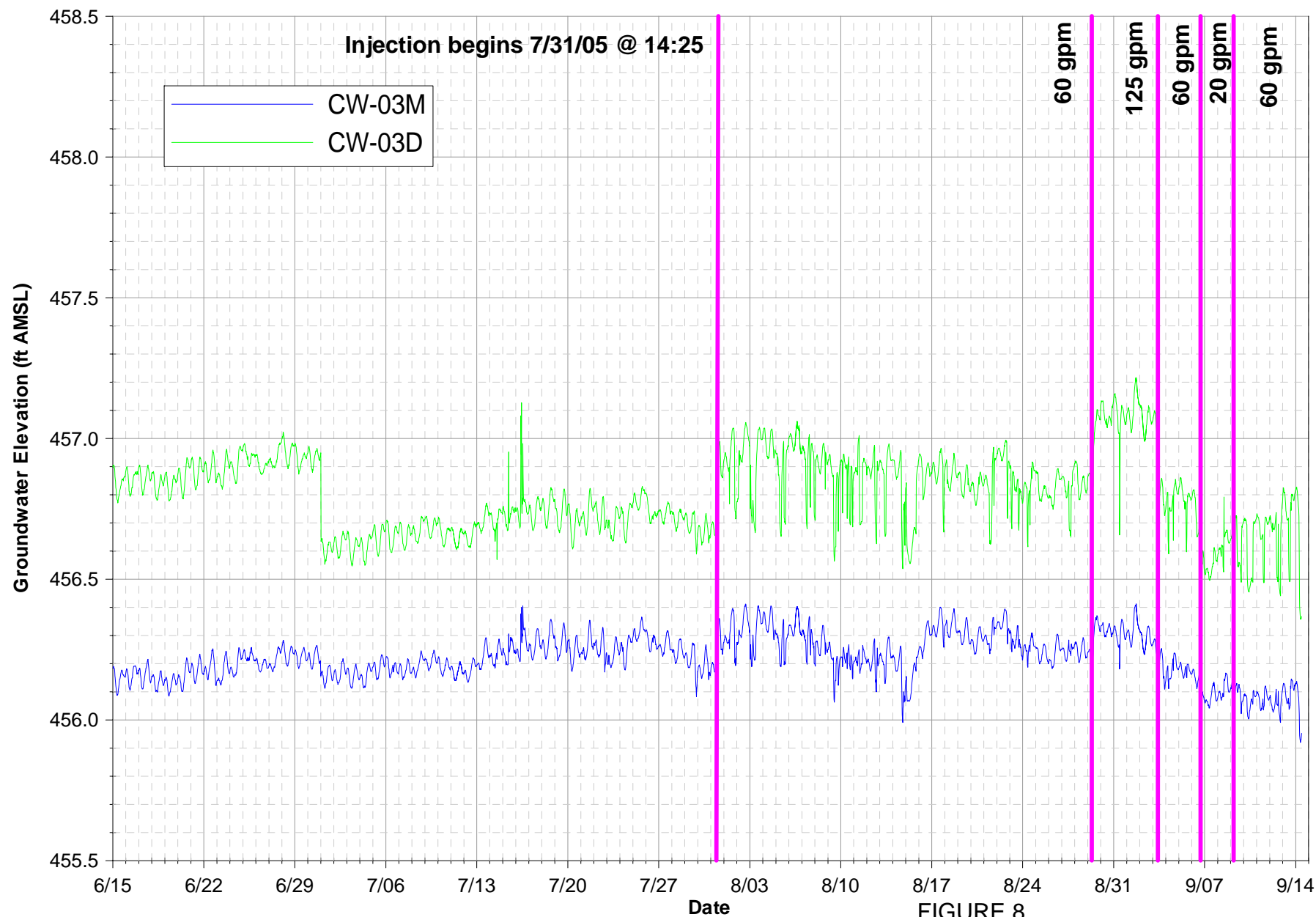


Note: Data subject to review.

FIGURE 7

CW-02 HYDROGRAPHS

INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

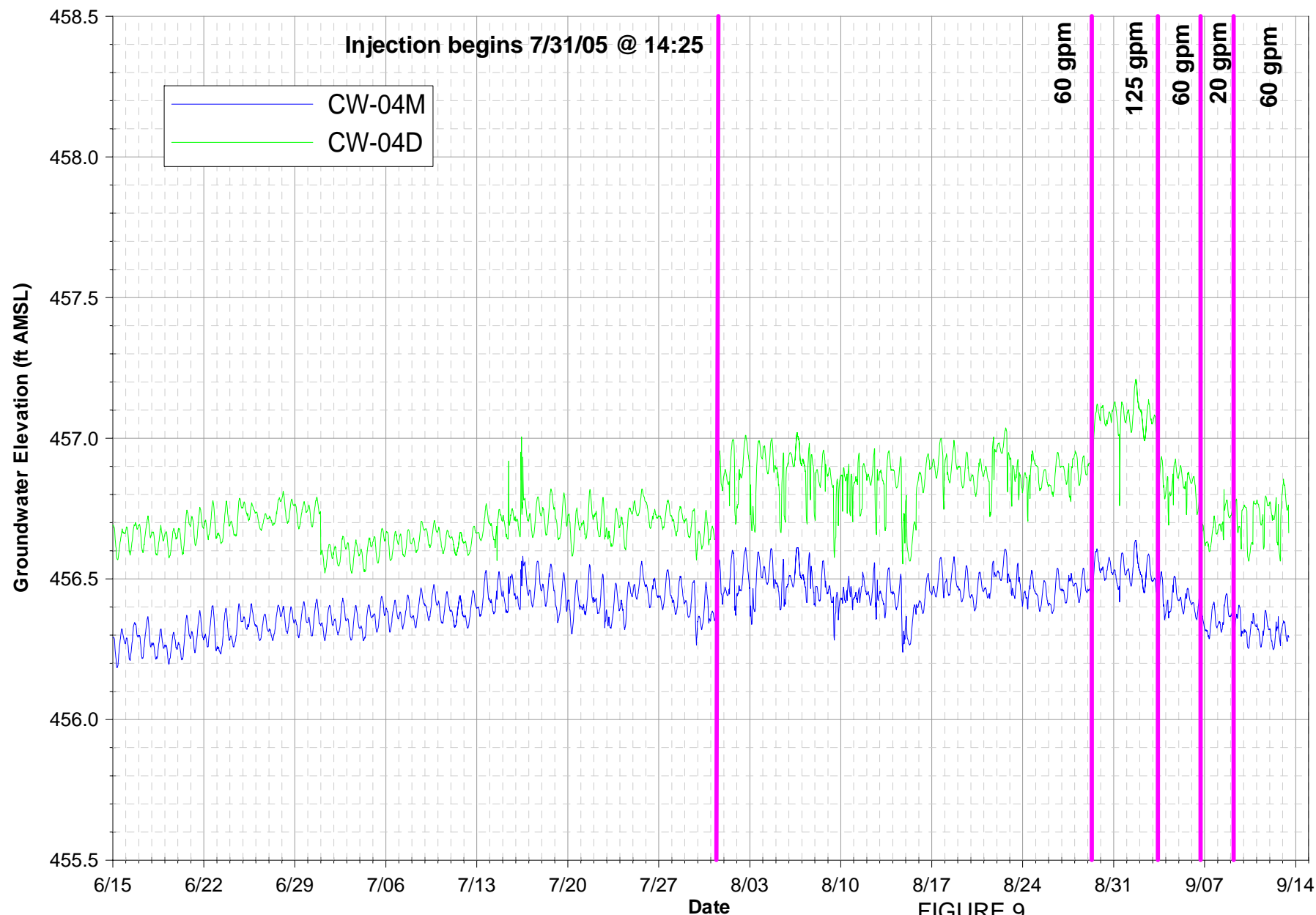


Note: Data subject to review.

FIGURE 8

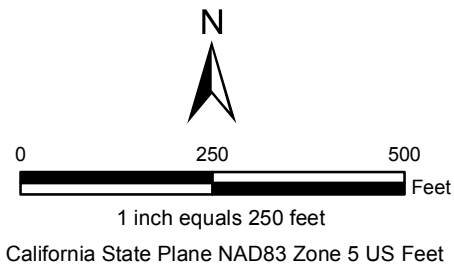
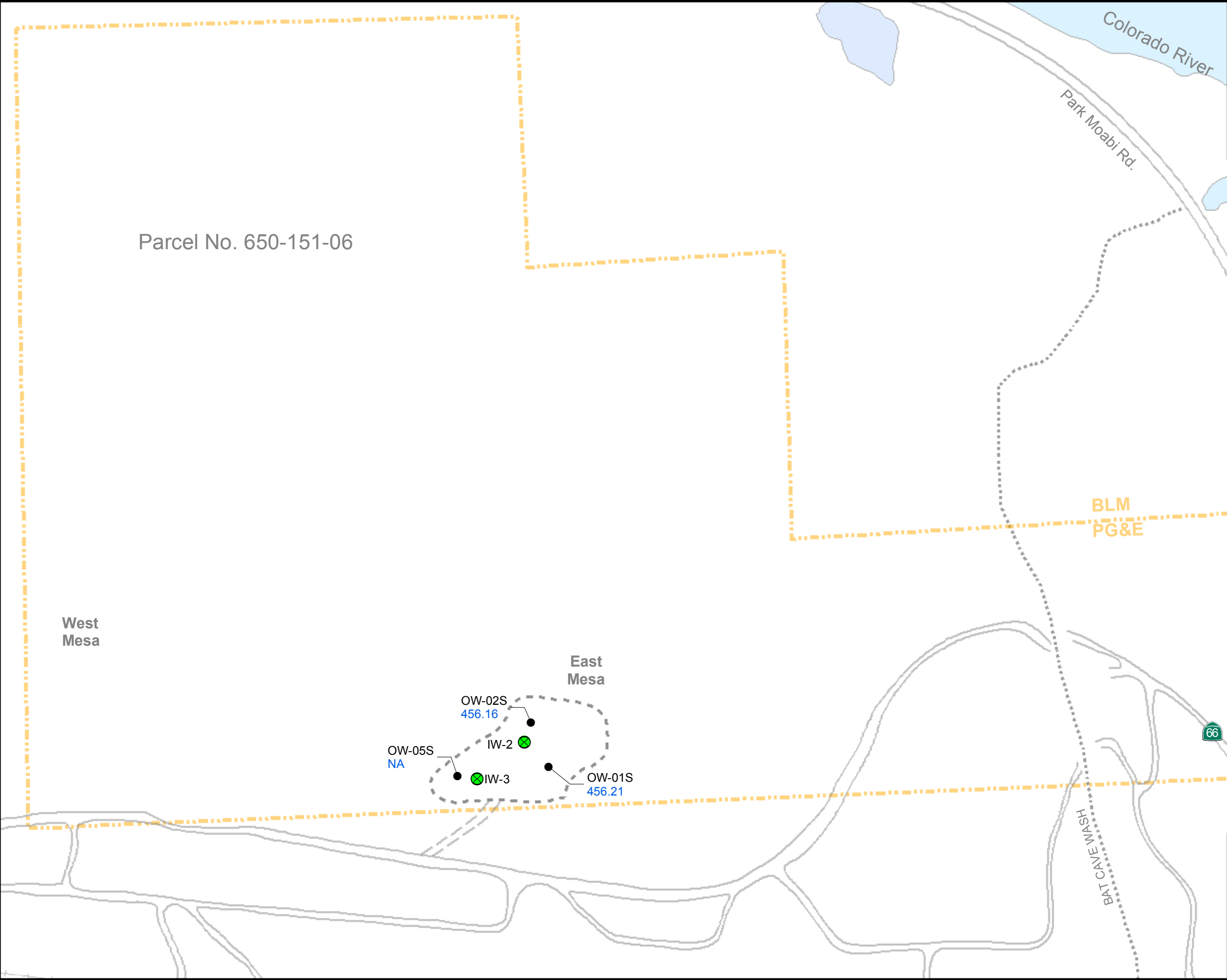
CW-03 HYDROGRAPHS

INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



Note: Data subject to review.

FIGURE 9
CW-04 HYDROGRAPHS
 INTERIM MEASURES PERFORMANCE MONITORING
 PG & E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA

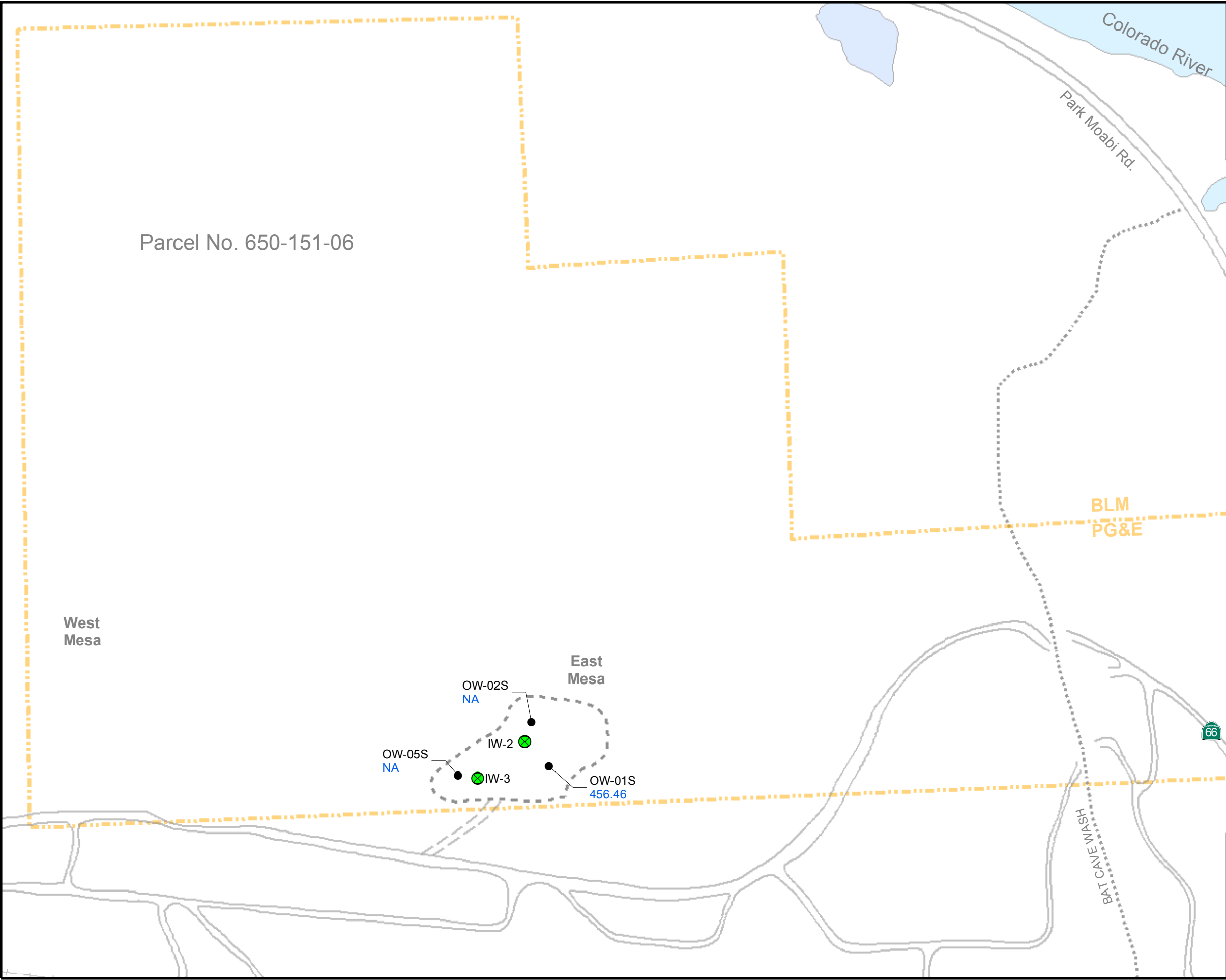


- LEGEND**
- Groundwater Monitoring, Compliance, and Observation Well
 - ⊗ IM-3 Injection Well
- Groundwater Elevations for Shallow Wells in IM-3 Injection Area**
- **MW-41M**
454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

**FIGURE 5-10
GROUNDWATER ELEVATIONS
FOR SHALLOW WELLS
JUNE 15 - 19, 2005**

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



N

0 250 500 Feet

1 inch equals 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

Groundwater Elevations for Shallow Wells in IM-3 Injection Area

- MW-41M**
454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

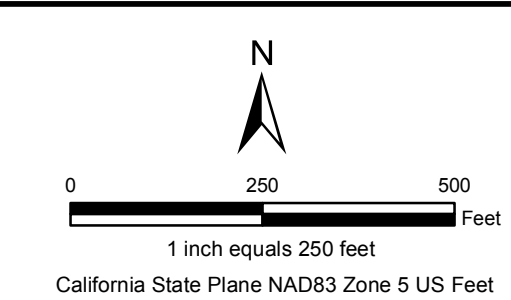
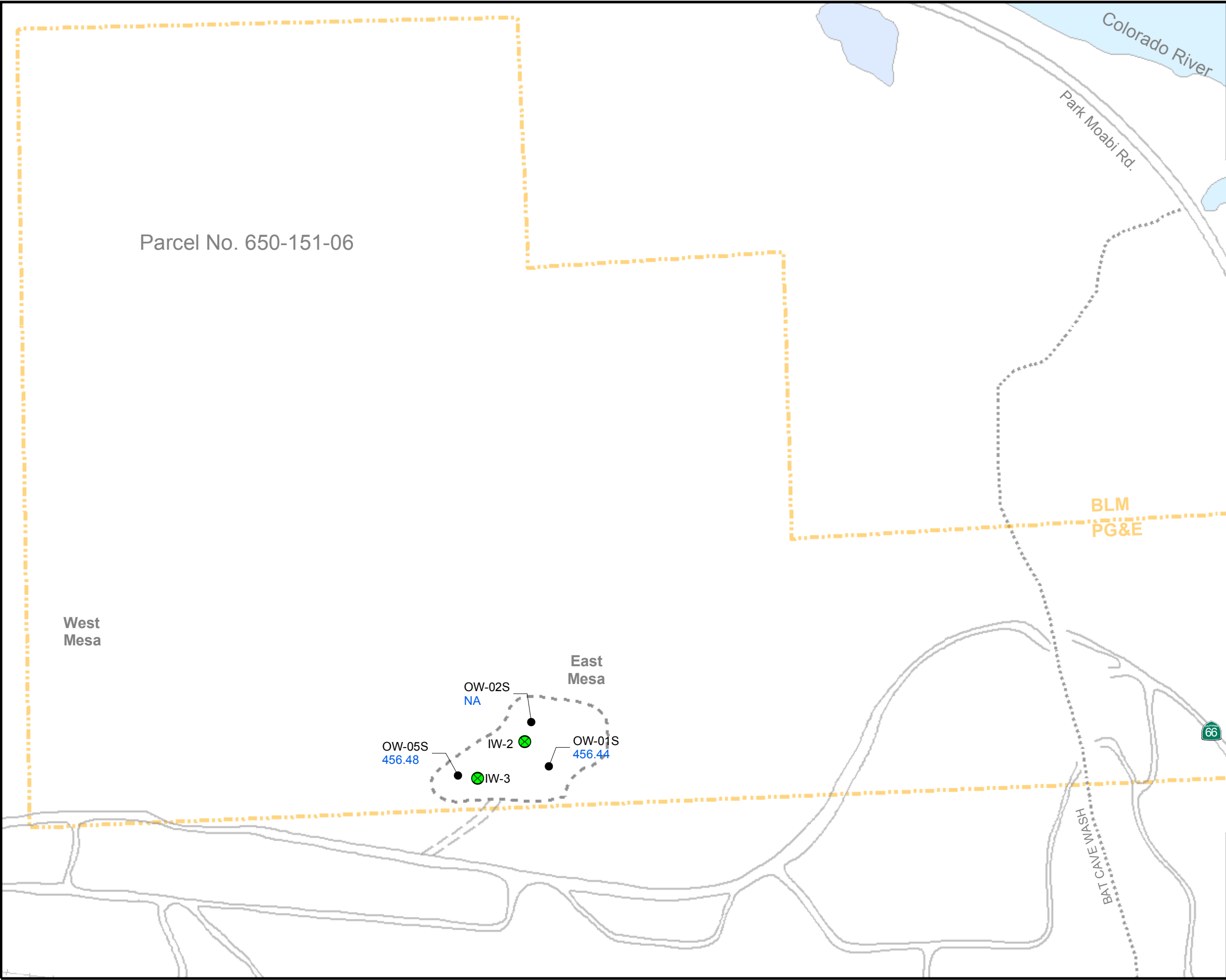
FIGURE 5-11

GROUNDWATER ELEVATIONS FOR SHALLOW WELLS

JULY 15 - 19, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

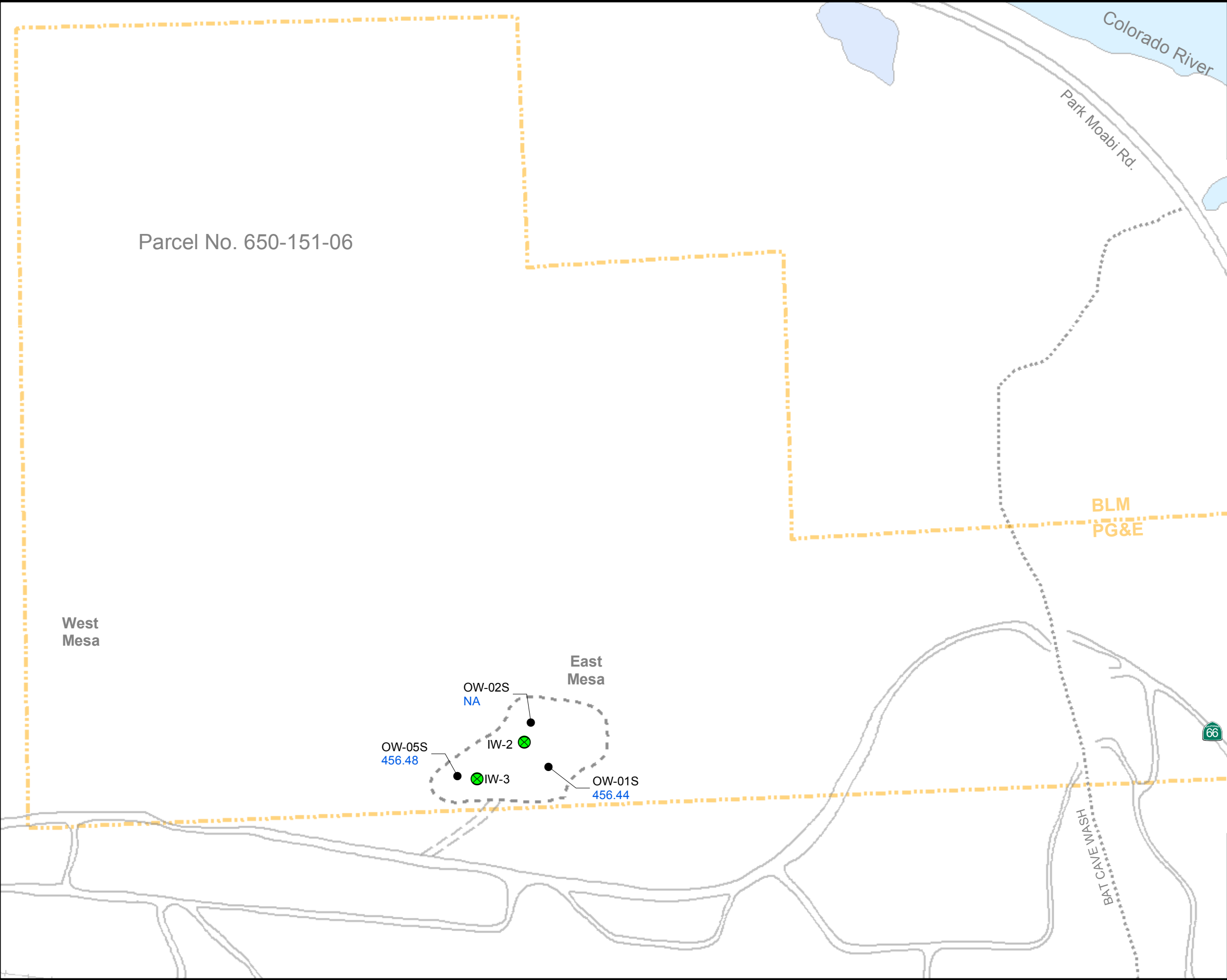


- LEGEND**
- Groundwater Monitoring, Compliance, and Observation Well
 - IM-3 Injection Well
- Groundwater Elevations for Shallow Wells in IM-3 Injection Area**
- MW-41M** Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
454.75

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

FIGURE 5-12
GROUNDWATER ELEVATIONS
FOR SHALLOW WELLS
AUGUST 3 - 7, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



Parcel No. 650-151-06

West
Mesa

East
Mesa

OW-02S
NA

OW-05S
456.48

IW-2

IW-3

OW-01S
456.44

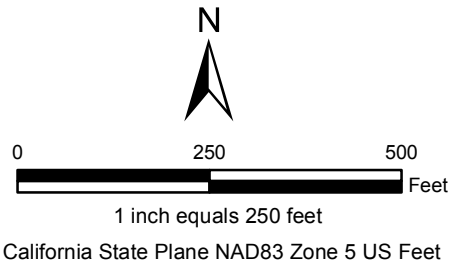
Colorado River

Park Moabi Rd.

BLM
PG&E

66

HSANWASH

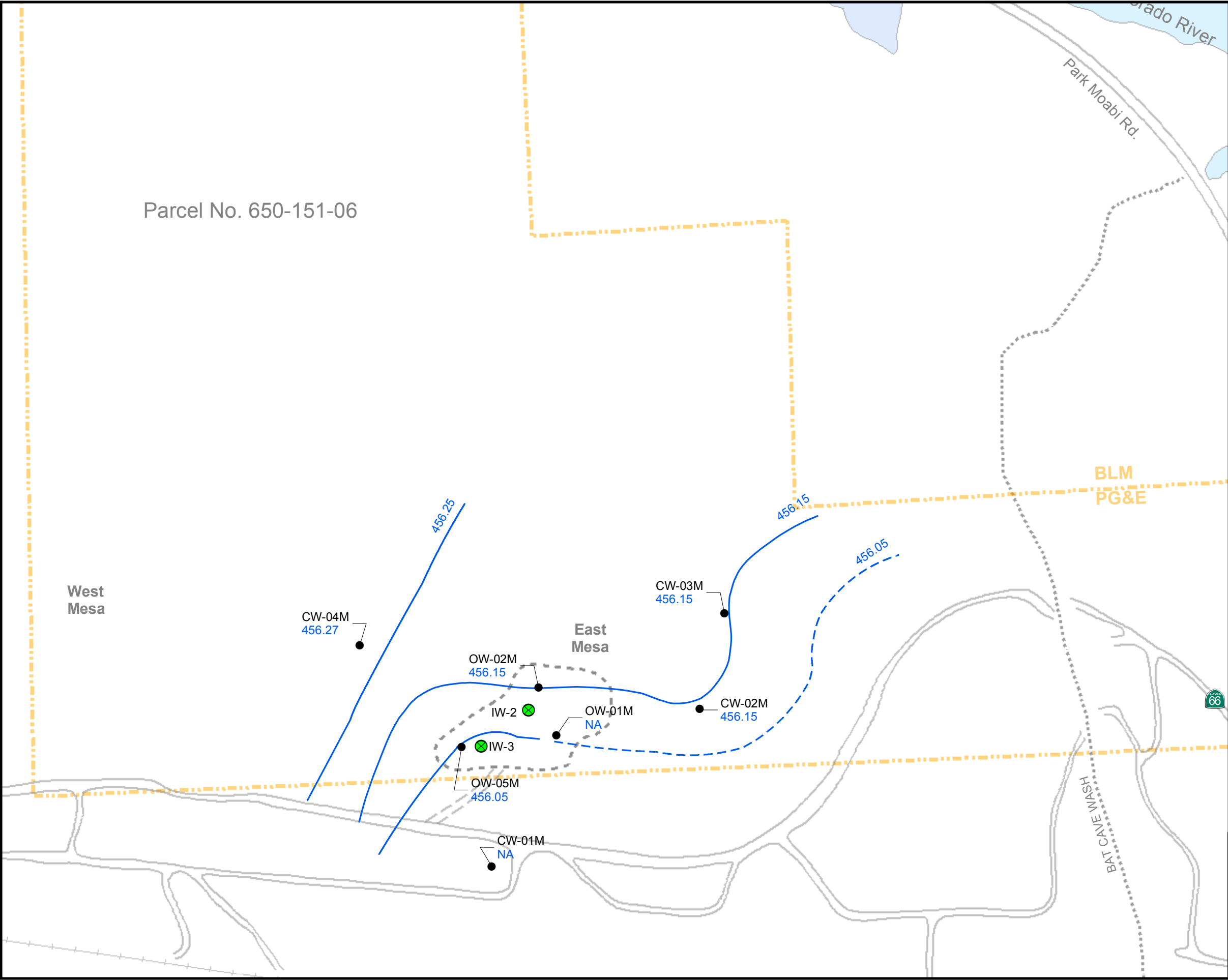


- LEGEND**
- Groundwater Monitoring, Compliance, and Observation Well
 - ⊗ IM-3 Injection Well
- Groundwater Elevations for Shallow Wells in IM-3 Injection Area**
- **MW-41M**
454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

**FIGURE 5-13
GROUNDWATER ELEVATIONS
FOR SHALLOW WELLS
SEPTEMBER 10 - 14, 2005**

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



N

0 250 500 Feet

1 inch equals 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

Groundwater Elevations for Shallow Wells in IM-3 Injection Area

- MW-41M** 454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- Groundwater elevation contour in feet above MSL (0.1 foot interval), dashed where inferred

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

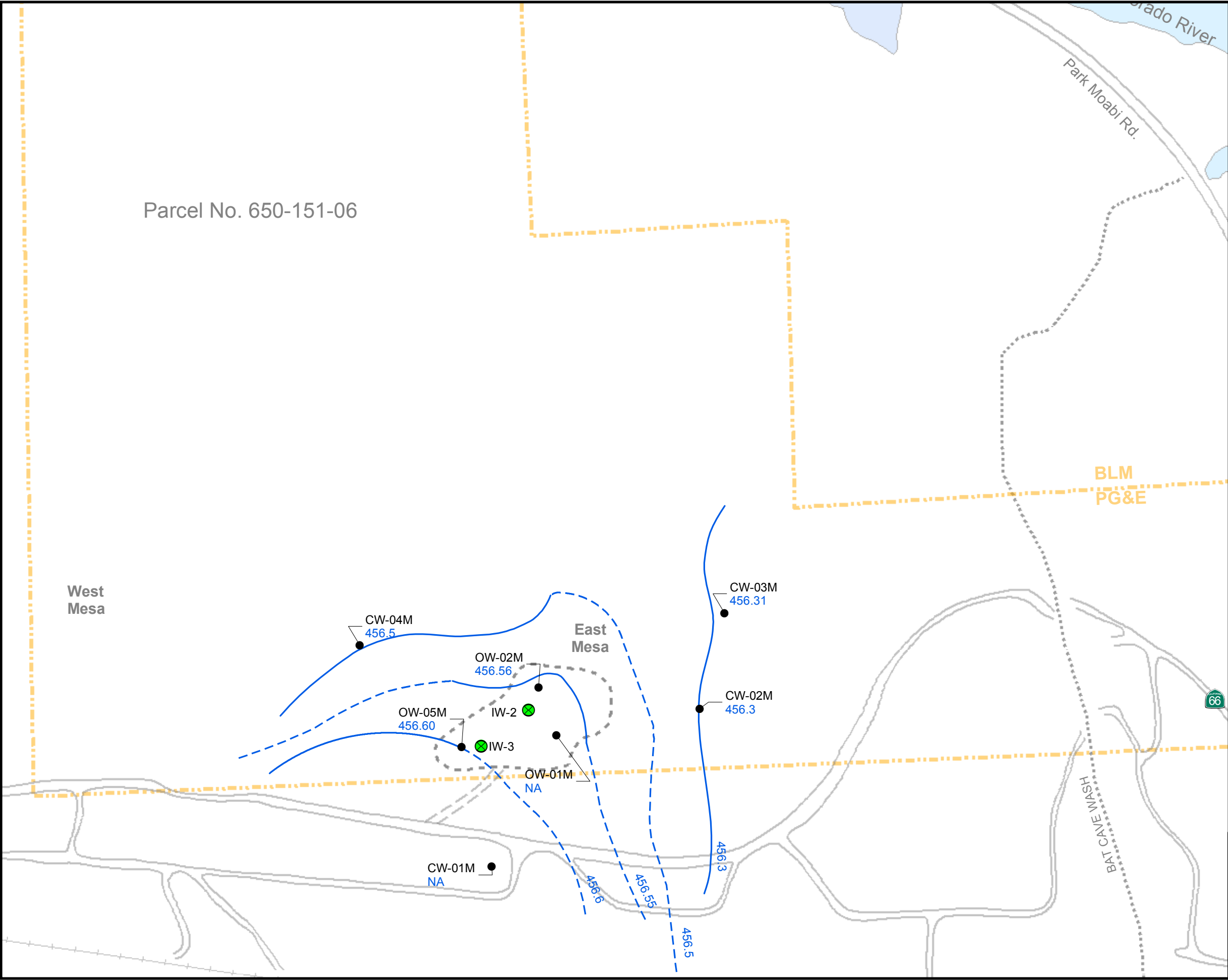
FIGURE 5-14

GROUNDWATER ELEVATION CONTOURS FOR MID-DEPTH WELLS

JUNE 15 - 19, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL



N

0 250 500 Feet

1 inch equals 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

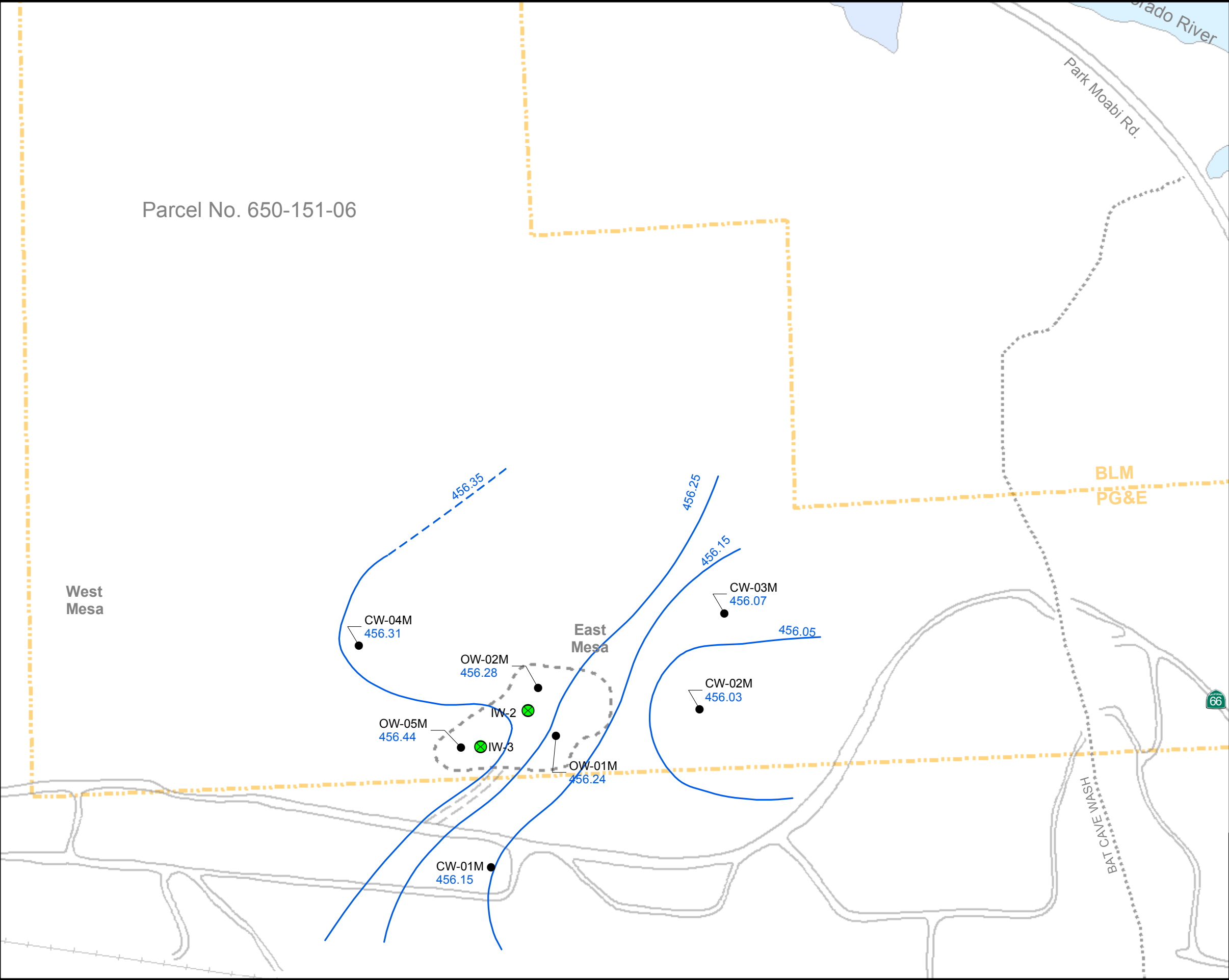
Groundwater Elevations for Shallow Wells in IM-3 Injection Area

- MW-41M**
454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- Groundwater elevation contour in feet above MSL (0.1 foot interval), dashed where inferred

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

FIGURE 5-16
GROUNDWATER ELEVATION CONTOURS FOR MID-DEPTH WELLS
AUGUST 3 -7, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



Parcel No. 650-151-06

West
Mesa

East
Mesa

CW-04M
456.31

OW-02M
456.28

OW-05M
456.44

IW-2

IW-3

OW-01M
456.24

CW-01M
456.15

CW-03M
456.07

CW-02M
456.03

BLM
PG&E

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

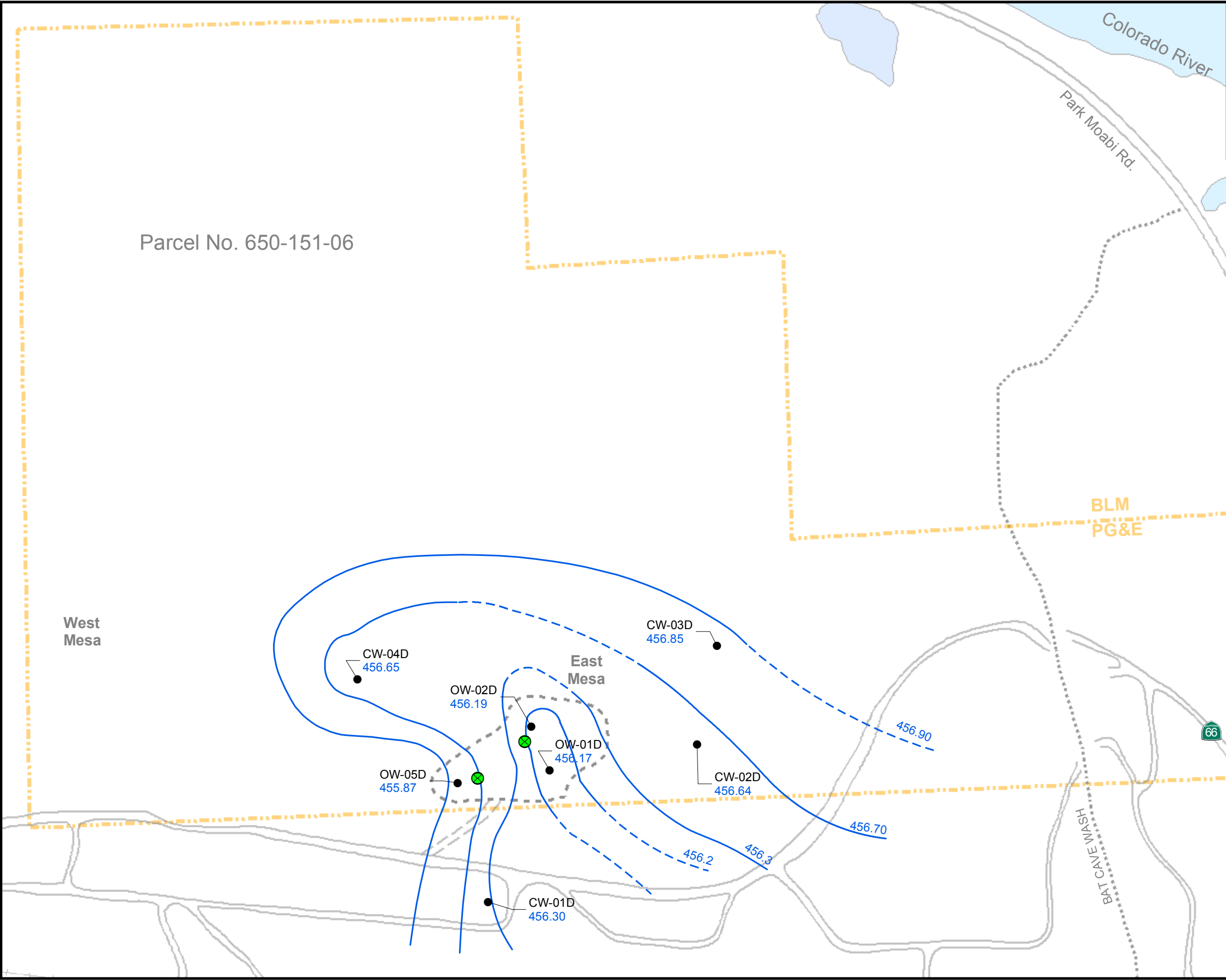
Groundwater Elevations for Shallow Wells in IM-3 Injection Area

- MW-41M**
454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- Groundwater elevation contour in feet above MSL (0.1 foot interval), dashed where inferred

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

FIGURE 5-17
GROUNDWATER ELEVATION
CONTOURS FOR MID-DEPTH WELLS
SEPTEMBER 10-14, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



Parcel No. 650-151-06

West
Mesa

East
Mesa

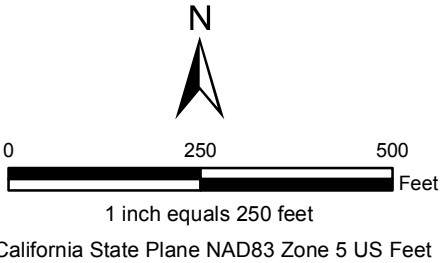
Colorado River

Park Moabi Rd.

BLM
PG&E

66

HSANW CAVENAB



LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- ⊗ IM-3 Injection Well

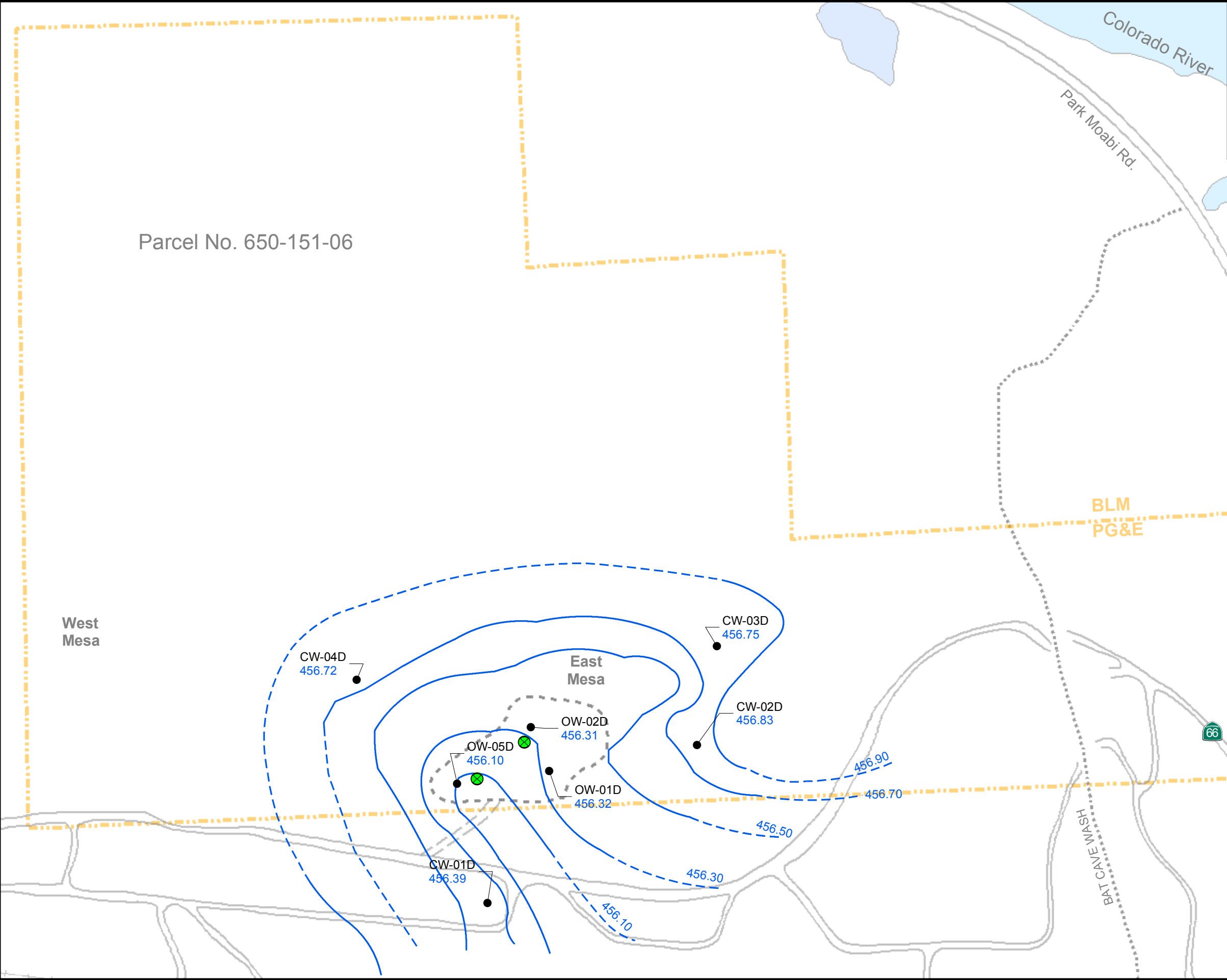
Groundwater Elevations for Shallow Wells in IM-3 Injection Area

- **MW-41M**
454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- — — Groundwater elevation contour in feet above MSL (0.1 foot interval), dashed where inferred

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

FIGURE 5-18
GROUNDWATER ELEVATION
CONTOURS FOR DEEP WELLS
June 15 - 19, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



N

0 250 500 Feet

1 inch equals 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

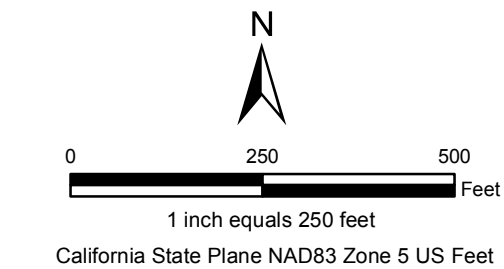
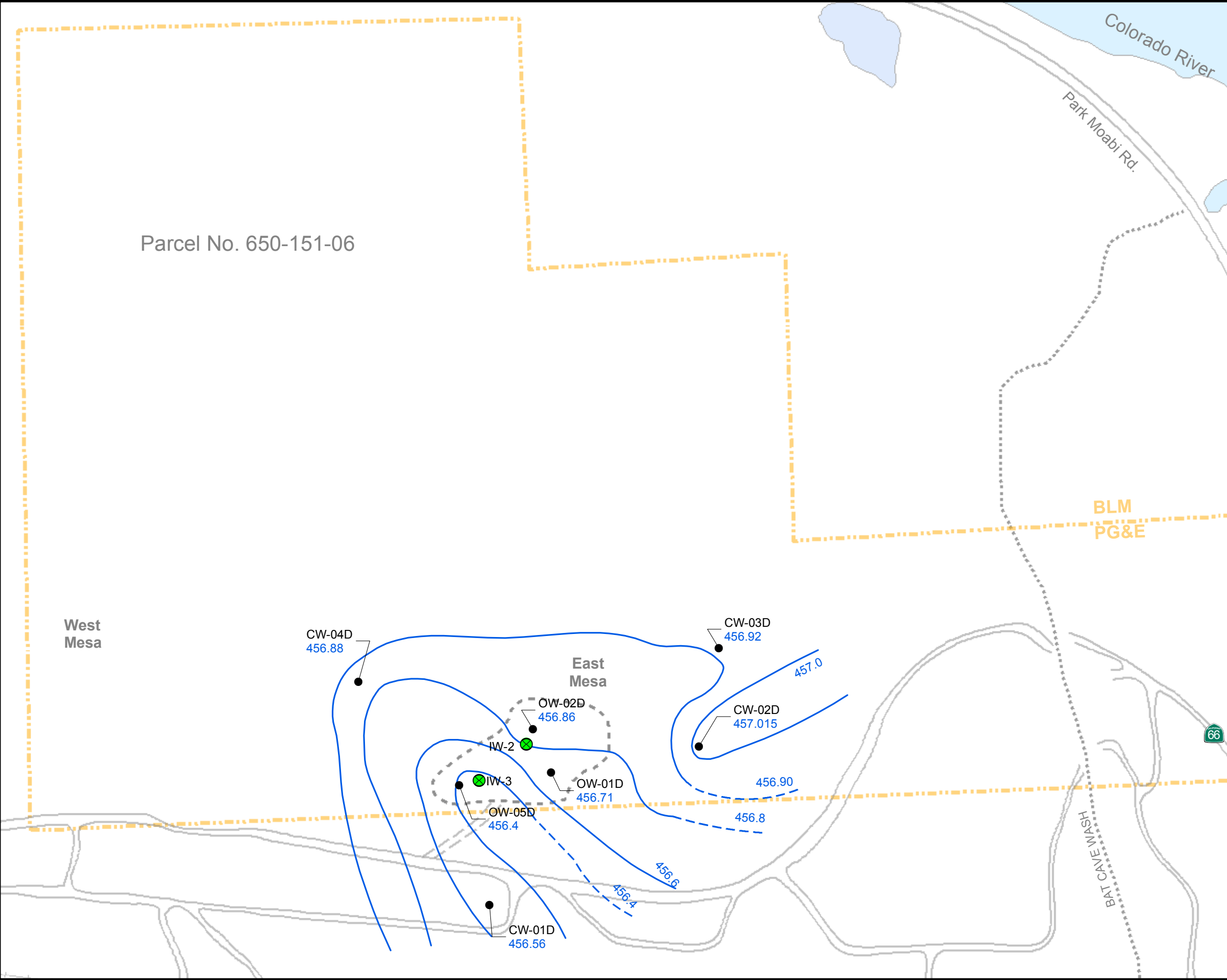
Groundwater Elevations for Shallow Wells in IM-3 Injection Area

- MW-41M** Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
454.75
- Groundwater elevation contour in feet above MSL (0.1 foot interval), dashed where inferred

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

FIGURE 5-19
GROUNDWATER ELEVATION CONTOURS FOR DEEP WELLS
JULY 15 - 19, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



LEGEND

- Groundwater Monitoring, Compliance, and Observation Well
- IM-3 Injection Well

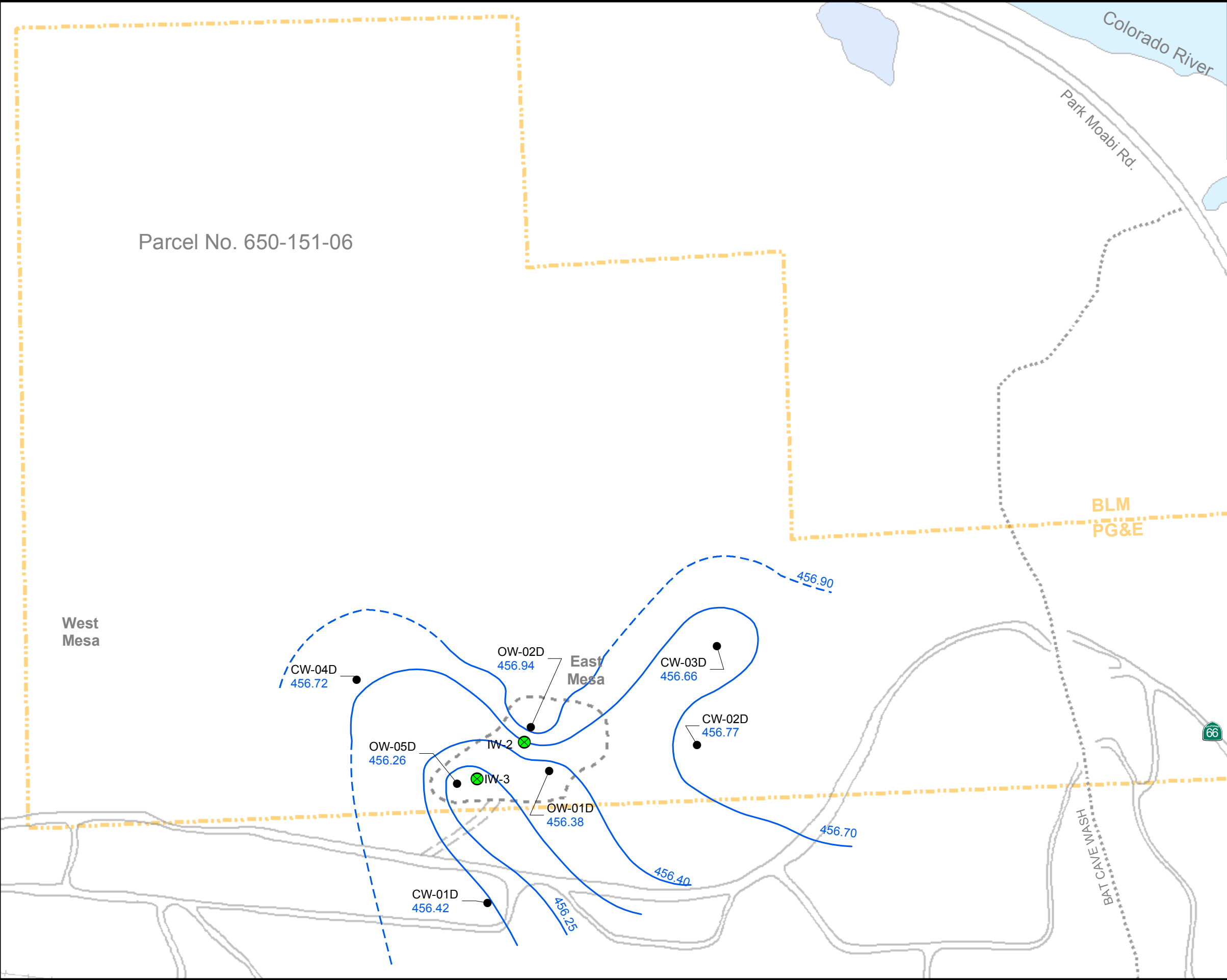
Groundwater Elevations for Shallow Wells in IM-3 Injection Area

- MW-41M** 454.75 Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)
- Groundwater elevation contour in feet above MSL (0.1 foot interval), dashed where inferred

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

FIGURE 5-20
GROUNDWATER ELEVATION
CONTOURS FOR DEEP WELLS
AUGUST 3 - 7, 2005

IM-3 GROUNDWATER INVESTIGATION
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



Parcel No. 650-151-06

West
Mesa

East
Mesa

Colorado River

Park Moabi Rd.

BLM
PG&E

66

HSANME CAT

N

0250500

Feet

1 inch equals 250 feet

California State Plane NAD83 Zone 5 US Feet

LEGEND

●

Groundwater Monitoring, Compliance, and Observation Well

⊗

IM-3 Injection Well

Groundwater Elevations for Shallow Wells in IM-3 Injection Area

●

MW-41M

454.75

Salinity and temperature adjusted groundwater head elevation in feet above mean sea level (MSL)

Groundwater elevation contour in feet above MSL (0.1 foot interval), dashed where inferred

Note: Gradients on this figure show transient conditions in the aquifer at the time of measurement and may not reflect the expected average annual groundwater flow directions.

FIGURE 5-21
GROUNDWATER ELEVATION
CONTOURS FOR DEEP WELLS
SEPTEMBER 10 - 14, 2005

IM-3 GROUNDWATER INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

Appendix A
Field Data Sheets and Chains of Custody
