

**Petroglyph Operating Company  
September/October 2010 Monthly Report**

**Covering the period of 9/16/2010 through 10/22/2010**

**Prepared for  
Colorado Oil and Gas Conservation Commission**

**Revised November 4, 2010**

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**Petroglyph Operating Company, Inc.**  
**Monthly Report –September/October 2010**

Petroglyph Operating Company, Inc. (Petroglyph) is submitting this monthly report for the activities that have occurred at their Little Creek Field in the Raton Basin from the end of the last reporting period through October 22, 2010. Along with this monthly report, Petroglyph is submitting an electronic copy of all data including Microsoft Excel spreadsheets from which the attached summaries and graphs were created.

**1.0 Phase 1 and Phase 2 Remediation System**

The Phase 1 remediation system associated with the Methane Investigation, Monitoring and Mitigation Program (MIMMP) operated from December 8, 2008 through the start of the Phase 2 remediation system on August 6, 2010. Therefore, remediation at the site has been operational for approximately twenty-one months. The Phase 1 remediation system consisted of 4 recovery wells and 8 injection wells all completed in the Poison Canyon Formation and designed to pump water with methane, allow the methane to off gas and return the water to approximately the same location from which it was pumped.

The Phase 2 remediation system consists of 4 recovery wells in the Poison Canyon Formation and differs from Phase 1 in that it allows for pumping a limited amount of additional water from the Vermejo Formation in up to 2 production wells (Rohr 04-10 and Rohr 09-10) at a rate not exceed a total of 1,000 barrels per day or approximately 29 gpm. The additional water will be combined with the Poison Canyon water and sent through a reverse osmosis treatment system before being injected into the Poisons Canyon Formation using the 8 injection wells. The addition of water during Phase 2 operations will allow for the formation of a hydraulic barrier to prevent further movement of methane outside of the ring of injection wells in the remediation system.

Gas Flows in Remediation Wells

The Phase 1 system was started with pumping from Recovery 1 Kittleson and Recovery 3 PEI. Recovery 1 gas production was initially 25.7 MCFD and has dropped to a reading of approximately 6.4 MCFD at the start of this reporting period. During the period the high value was 6.5 MCFD and there were several days where the well was not pumped resulting in no gas flow (9/29, 10/1, and 10/16-18). Since the start-up of the Phase 2 system, pumping at Recovery 1 has been down more often than has been typical of past operations. When the recovery well pump goes down, even for a few hours as was the case during this reporting period, it often takes 1 to 3 days before normal gas flows resume.

Recovery 3 gas flows were measured at approximately 0.75 MCFD at the start of Phase 1 remediation and increased to approximately 1 MCFD and remained around 1 until late February 2009 and then began a slow and steady decline. Recovery 3 was shut down on 8/25/2010 because previous water analyses had shown high TSS results and bacteria problems which affect the operation of reverse osmosis system. The well continued to be shut down during this reporting period.

Recovery 4 has shown variability during Phase 1 ranging between approximately 0.9 MCFD and 0 until mid April 2009 when the readings were consistently under 0.001 MCFD. Readings at Recovery 4 showed an increase beginning in late July/early August 2009 and have been a bit variable since that time. During this reporting period the readings for Recovery 4 showed a slight overall increase with starting reading of 0.1796 MCFD and an ending reading of 0.3006 MCFD. The low reading for the period was 0.106 MCFD and the high reading was 0.345 MCFD.

Gas flows at Recovery 5 are estimated from Barton recorder data. Recovery 5 gas flows continued to show an overall decline. Initial readings from this well were between 15 and 20 MCFD. During the most recent reporting period the levels were fairly consistent at between 0.16 and 0.17 MCFD for most of the periods with no gas reported on 10/16, 10/17, and 10/19 and no pumping on 9/15-19 and 10/1. Just before and after the no pumping period of 9/15-19 gas flows were at a high of 0.528 MCFD.

There is no gas flow in the Rohr 4-10 production well which is being pumped to provide additional water for the hydraulic barrier of the remediation system. The Rohr 4-10 well has not produced any gas during the current pumping and did not produce gas during full production.

Gas flow in POCI 55 monitoring well and the Recovery wells is shown graphically in Attachment 1. The POCI 55 well has not shown any gas flows since April 2008 shortly after the Phase 1 remediation system became fully operational.

The gas flow data does not appear to show any significant impact from the Phase 2 operations. Recovery 4 is showing what appears to be a slight increase in gas from the well but the reason for this slight increase is difficult to determine and may or may not be related to the Phase 2 injection. As discussed below the effects of injection additional water are beginning to be seen in some of the water well pressure data.

#### Pumping and Injection Rates in Remediation Wells

The average pumping rate for Recovery 1 was 14.60 gpm during the reporting period. The average pumping rate at Recovery 3 has been 4 gpm intermittently (or averaging about 1 gpm over a day's time) (Table 1). The well was shut-in on 8/25/2010. Recovery 4 is not functioning properly as explained in previous monthly reports and has not been pumped since early April 2009. Recovery 5 pumped at an average of 6.2 gpm. The Rohr 04-10 production well, activated as part of the Phase 2 remediation, pumped 2.8 million gallons of water at an average rate of 28 gpm. The Rohr 09-10 is expected to be used only as a back up well and has not yet been pumped for the Phase 2 operations.

Injection started in Injection 01 and 04 on December 9, 2008 and Injection 02, 03, 05, 06 and 07 on December 10, 2008 (Table 1). Injection rates vary for the individual injection wells and range from 1.6 to 13 gpm during this reporting period with individual wells showing both increases and decreases in injection rates during the period. The two wells

on the Rohr property (Injection 04 and 05) have accepted the most water. Injection 08 Haeffner has not accepted water very well. Most of the approximately 24 million gallons of water that have been recovered have been re-injected following methane off gassing and flaring during Phase 1 and the reverse osmosis treatment of Phase 2. The total Vermejo water injected into the Poison Canyon since the start of Phase 2 is 2.5million gallons. The Phase 2 reverse osmosis system creates a filter residue which does include some water which is not re-injected.

Petroglyph has an extensive monitoring program for domestic water wells surrounding the remediation system for changes in both water levels and in gas detected at the wellhead. In addition, Petroglyph monitors several of their production wells for changes in water level. All of these results are discussed in subsequent sections of this report. None of the monitoring has ever shown results that can be directly attributable to the remediation system pumping.

#### Water Treatment System

The reverse osmosis system for water treatment has been operating as expected and has been reducing levels of fluoride in the pumped water to well below the limit of 4 mg/L with levels during this reporting period of less than 0.2 mg/L. The system has produced an average of 10% brine solution including the flush water based on the full period of operation and 14% for the month of October. A total of 12,081 barrels of brine have been shipped off site for disposal with 5634 barrels shipped during the month of October.

## **2.0 Ongoing Investigation**

#### Aquifer Characterization

Petroglyph continues to evaluate data collected through the remediation system operation and ongoing monitoring to refine the aquifer characterization. The geologic model was created for the site using PETREL software and actual data from well logs completed during drilling of the remediation wells. Modeling of the flow of gas and water was completed using actual data and Computer Modeling Group Ltd.'s IMEX software. The modeling verifies that the remediation system is reducing and containing the methane as projected during initial modeling and planning for the remediation system.

#### Gas Isotope, Dissolved Methane and Water Quality Sampling

The attached data disk includes the results from analyses received during this reporting period for seven samples (Injection 5 Rohr, Recovery 1 Kittleson, Recovery 3 PEI, Recovery 5 Masters and Rohr 04-10). All of the wells were sampled for gas results. The recovery and injection well sampling are used to demonstrate that the dissolved gas reduction is at least 50%. The results for dissolved methane sampling available to date, including the most recent sample results, are shown in Table 2 with those results received since the last reporting period highlighted in yellow.

The Phase 2 remediation system sampling plan requires additional water quality samples be taken to determine the quality of the injected water. This included weekly sampling of fluoride and boron at the finished water tank or at Injection No. 5 well during the first

month of the Phase 2 system which was reported in the last monthly report. The monitoring for the remainder of the first year of operation is monthly since the levels for the first month were below the permit limits. Results of the samples are shown in Table 3a. Samples did not exceed the permit level of 4.0 mg/L for fluoride and 0.5mg/L for boron.

The recovery well dissolved methane samples at Recovery 1, Recovery 3, Recovery 05 and Rohr 04-10 were measured weekly during the first month of Phase 2. The first month's results indicated that a 50% dissolved methane reduction is being achieved prior to injection, therefore monitoring has been reduced to monthly. Results from this reporting period are shown on Table 3b. The results were averaged, using a weighting system based on average pumping rates from each well contributing to the water to be injected, to determine the recovery well dissolved methane concentration. This resulted in a weighted average dissolved methane concentration in the recovery wells of 8,749 µg/L. This background methane concentration is significantly higher compared to the 05 Rohr site – four readings ranging from a high of 350 µg/L taken on 9/13/10 to a low of 180 µg/L taken on 9/27/09. The reduction achieved based on the average measured from Rohr 05 was approximately 97.2%; therefore more than a 50% reduction in dissolved methane is being achieved.

#### Methane Source Investigation

Petroglyph continues to evaluate the source of methane both in the domestic wells in the vicinity of the production wells and closer to the outcrop. The BLM wellhead and the Haupt #1 wellhead continue to show measurable methane in wellhead monitoring. Any additional information on the ongoing investigation will be included in the monthly reports and/or in separate reporting as the data is collected and evaluated.

### **3.0 Monitoring**

#### Down-hole Pressure and Fluid Level Monitoring

##### *Private Wells*

Petroglyph has installed continuous pressure monitoring for fluid levels in water wells at Barrett, Bergman and Coleman located within one mile of the remediation system; Meyer located in the River Ridge Ranch Subdivision but more than one mile from the remediation system; Bruington located in City Ranch Subdivision; and Garza-Vela located in the Silver Spurs Ranch Subdivision.

Information from these wells is downloaded monthly by Petroglyph, graphed, and included in electronic data disk with this monthly report. The POCI 55 Monitoring Well located near the remediation system also has a pressure gage. Attachment 2 shows graphically the changes in pressure for each of these wells. Attachment 4 is a combined graph showing the water levels in both the domestic wells monitored and Petroglyph production wells.

Water level elevations in the POCI 55 well increased from approximately 6234 to approximately 6240 feet through the monitoring period. Water levels at the Barrett well



increased from approximately 6271 feet to 6272 feet at the end of the period. Bergman pressure and associated water levels increased from 6375 to 6379 feet at the end of the period. Coleman also showed an upward trend in water levels with a rise of 5 feet during the reporting period from approximately 6234 feet to 6239 feet. These increases in water level elevations have occurred consistently since the start of Phase 2 and appear to be in response to the increased amount of injected water (Vermejo water) associated with the Phase 2 remediation. .

The Meyer well water elevations increased from beginning to end going from approximately 6117 to 6119.8 feet. Meyer lies more than 3 miles outside of the remediation ring and the well is completed through the Poison Canyon and to the top of the Vermejo Formation. As a result, the rise in water levels is likely not attributed to the increased injection but additional data will confirm any trends in the next reporting period. The Bruington well continues to show an upward trend in water levels with a rise of approximately 5 feet during the reporting period from approximately 6101 feet to approximately 6106 feet. This well is located over five miles from the remediation system and has been showing a rise in water levels since approximately March of 2009 so is not rising in response to the additional injection volumes. Garza Vela reported the same elevation at the beginning and end of the reporting period of approximately 6295 feet with a low of 6293 feet at the first of October. The Gonzalez transducer showed a rise in pressure and associated water levels from approximately 6115.7 feet to approximately 6119.1 feet. This well is completed in the Vermejo Formation and lies along the outcrop approximately and any changes in water level are not attributable to the increased injection.

#### *Petroglyph Production Wells*

Fifteen Petroglyph production wells are currently monitored for fluid level and casing pressure: Lively 02-02, Lively 02-12, Lively 03-01, Lively 03-10, Lively 03-12, Lively 10-04, Rohr 04-10, Rohr 04-14, Rohr 08-01, Rohr 09-04, Rohr 09-05, Rohr 09-10, State 36-02, State 36-05, State 36-11. The Lively 02-02, Lively 02-12, Lively 03-01, Lively 03-10, Lively 03-12, Lively 10-04, Rohr 04-10, Rohr 09-10, State 36-02, State 36-05, and State 36-11 are measured using an echometer. The echometer provides a general indication of water level trends. Two monitoring wells are also monitored continuously for water levels (Lively 03-03, and Lively 10-12). The monitoring occurs in the formation into which the wells are completed, the Vermejo/Trinidad Formation. Changes in fluid levels in Petroglyph production wells are shown graphically in Attachment 3.

Since Petroglyph is no longer pumping these wells to draw down water levels, pressure is equalizing within the Vermejo coals. Consequently, water levels have risen in all wells as would be expected, although the rate of rise is leveling off in most wells. Five of the wells show no water level elevation change throughout the period: Lively 02-02, Lively 03-01, Lively 02-12, Lively 03-10, and State 36-05. Lively 03-12, Rohr 04-10 and State 36-02 started and ended the period at the same elevation but experienced one or more fluctuations through the period. Rohr 9-10 showed a 15 foot decrease during the period. The remaining six wells (Rohr 08-01, Lively 10-04, State 36-11, Rohr 04-14, Rohr 09-04, Rohr 09-05) showed an increase in water level elevation. Of those six wells, four wells

(Rohr 08-01, Rohr 09-04, Rohr 04-14 and Rohr 09-05) showed a small increase of between 2 and 4 feet. The remaining wells, Lively 10-04 and State 36-11, showed greater increases in water levels during the period of 30, and 61 feet, respectively.

#### *Comparison of Production Well and Private Well Data*

Attachment 4 compares the water elevations for certain Petroglyph production wells and the private wells which are measured and discussed previously. As shown in Attachment 4 the majority of the private wells have water levels significantly higher in elevation than the production wells. Production well water levels showed a large rise after pumping ceased (250-300 feet); however domestic well water levels have remained relatively constant to decreasing during the same period indicating a lack of connection between the production wells in the Vermejo Formation and domestic wells in the Poison Canyon Formation. Attachment 4 also includes a table which shows the completion interval, location and well status.

#### Gas Flow Monitoring In Domestic Wells

Gas flow monitors have been installed by Petroglyph at the Angely, Bounds, Bruington, Coleman, and Smith wells. All of these wells except for Bruington and Bounds lie within one mile of the remediation system. Continuous gas flow monitoring occurs at Coleman and Smith, while gas flow is spot monitored with a gage and orifice tester at Angely, Bounds, and Bruington. Gas pressure at the Bounds and Angely wells is currently monitored by COGCC or their consultant; however the data, when available, is presented in this report.

Attachment 5 includes graphs representing gas flow measurements from Bruington, Coleman, Angely, Bounds and Smith. The Bruington and Smith wells are not showing any gas. The water level recovery of the Bruington well precludes any gas flow so these results continue to show 0 gas flow. Gas flow may resume when the well stabilizes. Gas concentrations at the wellhead are still monitored monthly and reported. The Coleman well only shows gas when the well is initially pumped. The Coleman well was not monitored during this reporting period. The Angely and Bounds wells were sampled during the reporting period by a consultant to COGCC and were both at a zero gas flow rate.

A drop in gas flow in the domestic wells appears to have occurred in correlation with the original implementation of the remediation system wells and venting of gas through these wells in late 2008 and early 2009 with continued decreases in gas flows from the remediation system recovery wells. This would indicate that the remediation system has been correctly located to remediate the area of largest gas concentration in the domestic wells.

#### Bi-Weekly and Monthly Water Well Monitoring

Petroglyph has routinely monitored for methane gas levels near 87 wellheads in the vicinity of the site. One well was added during this reporting period in River Ridge Ranch but more than one mile from the remediation system bringing the total wells

monitored to 88. Measurements are taken near the wellhead, at the well vent and in some cases are also taken at the cistern or a second wellhead.

Table 4 shows all of the wellheads that are currently being sampled, the sampling start date, the date of the last sample, the number of samples since the last reporting period and a description of the sampling results and any changes from the previous reporting period. A column that discusses the historical readings for each site is included on the table.

Of the 88 wellheads, 11 were not sampled during this reporting period. Sampling may vary during any one reporting period due to a variety of reasons. During this reporting period 16 wellheads were sampled once, 39 wellheads were sampled twice, 1 wellhead was sampled three times, 1 wellhead was sampled ten times, and 19 wellheads were sampled 11 times.

As shown on Table 4, the wellheads sampled bi-weekly, in accordance with the Phase 2 Sampling Plan, during this reporting period were those within one mile of the remediation system. Of the 25 wells listed in Table 1 within one mile of the remediation system, 1 well does not lie within the 1 mile boundary (the BLM well) and is therefore not included in the bi-weekly sampling. The Angely and Bounds wells are monitored by a consultant to COGCC and results for the sample events were reported to Petroglyph.

Monitoring results for the 77 wellheads sampled during this period showed that overall gas levels at 61 wellheads had no change from the previous monitoring period measurements and no detectable methane. Changes in % LEL, % by volume CH<sub>4</sub>, and % volume O<sub>2</sub> were evaluated to determine if the area around the wellheads was showing an indication of increasing or decreasing methane gas content as a result of Phase 2 operations. Of the remaining 16 wellheads, methane gas at 7 wellheads decreased with 4 wellheads showing only a slight decrease and 2 wellheads decreasing to 0; 6 wellheads showed an increase with 2 showing only a slight increase; and 2 wellheads showed some detectable methane levels but started and ended the period with no detectable methane. The remaining wellhead was a new site with no previous readings and it showed no detectable methane. There are no discernable trends in the monitoring data which can be attributed directly to Phase 2.

Petroglyph compared those wells showing any detectable methane readings or changes in methane monitored during the reporting period with wells known to have been drilled into the coals within the Raton or Vermejo Formations and lying within 1 to 1.25 miles of the outcrop. Of the 11 wellheads reading detectable methane at the end of the reporting period (Angely, BLM, Bergman, Bounds, Bruington, Golden Cycle, Hopke, Houghtling, Hurley, Meyer, Tobyas), 4 are known to have been drilled into the Poison Canyon based on well depths in well logs available from the State Engineer and 4 are known to have been drilled into the Vermejo Formation and lie close to the outcrop. The completion for the remaining 3 wells is not known.

The breakdown by subdivision or area as on Table 4 is as follows:

### **Within 1 Mile of Remediation System**

- Gas near 25 wellheads routinely monitored
- All wellheads but the BLM Well were monitored bi-weekly during the reporting period.
- All the wellheads were sampled during this reporting period
- 17 wellheads showed no change with no detectable methane gas
- 1 wellhead (Barrett) showed six out of twelve detectable methane readings with the remainder being non detectable including the starting and ending readings
- 1 wellhead showed no change with detectable methane (Bounds)
- 4 wellheads showed a slight decrease in methane levels (Bergman, Hopke, Houghtling, BLM)
- 2 wellheads showed a slight increase in methane levels (Angely, Golden Cycle)

### **River Ridge Ranch Subdivision and Vicinity Outside of One Mile**

- 17 wellheads were sampled during this reporting period; 5 wellheads were not sampled
- 15 wellheads showed no change with no detectable methane gas
- 1 wellhead showed an increase in methane gas (Meyer)
- 1 new wellhead was sampled during the reporting period (Klein)

### **City Ranch and Other Properties**

- 12 wellheads were sampled during this reporting period; 3 wellheads were not sampled.
- 1 wellhead showed one detectable methane reading with the remainder being non detectable (Degan)
- 8 wellheads showed no change with no detectable methane gas
- 2 wellheads showed an increase in methane (Hurley, Tobyas)
- 1 wellhead showed a decrease in methane (Bruington)

### **Silver Spurs Ranch**

- 21 wellheads were sampled during this reporting period; 3 wellheads were not sampled
- 19 wellheads showed no change with no detectable methane gas
- 2 wellheads showed a decrease in methane to 0 (Roberts, Stephens)

### **Black Hawk Ranch**

- 2 wellheads were sampled during this reporting period both of which showed no change with no detectable methane gas.

Table 5 shows the current monitoring schedule including which wells are monitored bi-weekly and which wells are monitored monthly or at a different frequency.

Attachment 6 includes charts of gas monitoring of eighteen wells near the mitigation system. The wells being monitored have not indicated a direct response to the remediation pumping and injection. Of the wellhead charts included in Attachment 6 only those for Barrett, Bergman, Golden Cycle Land, Houghtling and Hopke showed methane in recent readings. Both Barrett and Bergman have shown decreases in methane levels beginning at or around the time of the start of Phase 2. Bergman decreases have leveled off and continue to remain in the range of 70-90 % LEL and 3.5-4.5 % CH<sub>4</sub> by volume. Barrett methane levels have dropped to near zero. The remaining wellheads with detectable methane readings do not appear to represent any new or unusual charges to the wells as a result of Phase 2.

#### Hand Held Measurements

Petroglyph conducts periodic ground surveys using a hand held methane detector at locations where gas has previously been detected, at locations where a property owner requests such a survey or at locations where previous surveys such as the helicopter survey have detected gas seepage. These surveys are conducted based on need or urgency so can range from several times a week to a one time survey based on concerns from a property owner. No handheld surveys were collected during the reporting period.

### **4.0 Mitigation**

#### Methane Alarms

No activity occurred during the reporting period related to maintaining methane alarms or responding to any methane alarms. There are currently a total of 15 homes with alarm systems provided by Petroglyph. No alarms have ever been triggered by the presence of methane.

#### Water Supply

Petroglyph is currently providing water to 16 homes. Table 6 provides a list of the homes currently receiving water. Water is delivered as needed and can vary from month to month due to residential water use and whether or not the homes are occupied. One new home was added to the list during this reporting period: Betty and Katherine Morris.

#### Public Outreach

Mr. Craig Saldin of Petroglyph attended a River Ridge Ranch Board of Managers meeting on September 18, 2010.

#### Health and Safety/Emergency Planning

No changes to Petroglyph health, safety and emergency planning occurred during the reporting period.

### **5.0 Schedule**

The following is the currently anticipated schedule for Phase 2 of the Methane Investigation Monitoring and Mitigation Program.

- Continued pumping and injection of the Phase 2 system with ongoing monitoring to evaluate the response in surrounding wells.
- Implementation of the Phase 2 Sampling Plan with special samples taken in accordance with the Plan
- Routine bi-weekly, monthly and quarterly sampling will continue with new sampling sites added as needed.
- Hand held seep monitoring will continue as needed.

**Table 1: Recovery and Injection Rates associated with Phase 1 and 2 MIMMP  
 (water flows as of 10/21/2010; gas flows as of 10/21/2010)**

Well Number	Total Depth (ft)	PBTD	Injection Tubing Depth	Start-up Date	Average Injection Rate (gpm)	Water Total (gal)	Water Totals (bbls)		Notes
Injection 01 Pascual	600	526	458	12/9/08	4.1	1,281,084	30,502		Average injection rate increased from 1.7 to 4.1 gpm.
Injection 02 Gonzales	600	575	362	12/10/08	4.7	1,318,800	31,400		Average injection rate increased from 2.0 to 4.7 gpm.
Injection 03 Benevides	725	629	454	12/10/08	1.6	1,165,248	27,744		Average injection rate decreased from 1.8 to 1.6
Injection 04 Rohr	675	667	455	12/9/08	11.1	6,206,340	147,770		Average injection rate decreased from 12.7 to 11.1
Injection 05 Rohr	750	735	458	12/10/08	13.0	7,709,016	183,548		Average injection rate decreased from 21.1 to 13.0
Injection 06 Masters	725	695	438	12/10/08	6.2	5,402,082	128,621		Average injection rate remained unchanged
Injection 07 Walden	750	713	457	12/10/08	5.1	1,209,852	28,806		Average injection rate increased from 1.9 to 5.1
Injection 08 Haeffner	650	713	365	12/10/08	see note	4,788	114		Well does not accept water very well. Inject approx. 150 gallons once every two weeks.
			<b>Pump Depth</b>		<b>Average Pump Rate (gpm)</b>			<b>Gas Totals (mcf)</b>	
Recovery 1 Kittleson	715	705	686	12/8/08	14.60	17,102,946	407,213	10,651	Decreased pumping is due to intermittent operation of the well since the start of Phase 2
Recovery 3 PEI	625	591	575	12/8/08	1 (see note)	858,438	20,439	796	Intermittent pumping at 4 gpm. Rate over 24 hrs is approx 1 gpm
Recovery 4 Barrett	500	484	463	2/10/09	(see note)	3,528	84	379	Started pump 2/10/09 to develop well. Pumps about 100 gallons in 15 minutes, per day. Water has not been injected. Last pump date 4/8/09
Recovery 5 Masters	847	847	822	12/24/09	6.2	2,748,606	65,443	1,440	No change during this reporting period
Rohr 04-10	2243	2219	2090	8/6/10 (see note)	28	2,754,234	65,577		Vermejo water supply for Phase 2 MIMMP. Decreased slightly during this period from 29 gpm to 28 gpm

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
<b>Mitigation wells</b>	Injection 03 Benavides	7/17/08	Ethane	4.9	Grabbed during pump testing
	Injection 03 Benavides	7/17/08	Methane	280	Grabbed during pump testing
	Injection 04 Rohr	7/22/08	Ethane	2.3	Grabbed during pump testing
	Injection 04 Rohr	7/22/08	Methane	4,500	Grabbed during pump testing
	Injection 05 Rohr	7/28/08	Ethane	3.0	Grabbed during pump testing
	Injection 05 Rohr	7/28/08	Methane	3,100	Grabbed during pump testing
	Injection 05 Rohr	3/9/09	Ethane	11	Injection Water
	Injection 05 Rohr	3/9/09	Methane	5,200	Injection Water
	Injection 05 Rohr	7/30/09	Ethane	4.4	Injection Water
	Injection 05 Rohr	7/30/09	Ethene	ND	Injection Water
	Injection 05 Rohr	7/30/09	Methane	2400	Injection Water
	Injection 05 Rohr	9/01/09	Ethane	4.7	Injection Water
	Injection 05 Rohr	9/01/09	Ethene	ND	Injection Water
	Injection 05 Rohr	9/01/09	Methane	2700	Injection Water
	Injection 05 Rohr	10/2/09	Methane	7800	Injection Water
	Injection 05 Rohr	11/5/09	Ethane	6.7	Injection Water
	Injection 05 Rohr	11/5/09	Ethene	ND	Injection Water
	Injection 05 Rohr	11/5/09	Methane33	2400	Injection Water
	Injection 05 Rohr	12/1/09	Ethane	7.1	Injection Water
	Injection 05 Rohr	12/1/09	Ethene	ND	Injection Water
	Injection 05 Rohr	12/1/09	Methane	2400	Injection Water
	Injection 05 Rohr	2/1/10	Ethane	7	Injection Water
	Injection 05 Rohr	2/1/10	Ethene	ND	Injection Water
	Injection 05 Rohr	2/1/10	Methane	3,000	Injection Water
	Injection 05 Rohr	3/2/10	Ethane	8.2	Injection Water
	Injection 05 Rohr	3/2/10	Ethene	ND	Injection Water
	Injection 05 Rohr	3/2/10	Methane	3,700	Injection Water
	Injection 05 Rohr	4/5/10	Ethane	11	Injection Water
	Injection 05 Rohr	4/5/10	Ethene	ND	Injection Water
	Injection 05 Rohr	4/5/10	Methane	3,300	Injection Water
	Injection 05 Rohr	5/3/10	Ethane	12	Injection Water
	Injection 05 Rohr	5/3/10	Ethene	ND	Injection Water
	Injection 05 Rohr	5/3/10	Methane	3,100	Injection Water
	Injection 05 Rohr	6/1/10	Ethane	2.6	Injection Water
	Injection 05 Rohr	6/1/10	Ethene	ND	Injection Water
	Injection 05 Rohr	6/1/10	Methane	1,300	Injection Water
Injection 05 Rohr	7/6/10	Ethane	1.3	Injection Water	
Injection 05 Rohr	7/6/10	Ethene	ND	Injection Water	
Injection 05 Rohr	7/6/10	Methane	900	Injection Water	
Injection 05 Rohr	8/9/10	Ethane	1.4	RO treated Injection Water	
Injection 05 Rohr	8/9/10	Ethene	ND	RO treated Injection Water	
Injection 05 Rohr	8/9/10	Methane	490	RO treated Injection Water	
Injection 05 Rohr	8/16/10	Ethane	1.1	RO treated Injection Water	
Injection 05 Rohr	8/16/10	Ethene	ND	RO treated Injection Water	
Injection 05 Rohr	8/16/10	Methane	490	RO treated Injection Water	



**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	Well	Sample Date	Analyte	Results (In ug/l)	Comments
	Injection 05 Rohr	8/24/10	Ethane	0.82	RO treated Injection Water
	Injection 05 Rohr	8/24/10	Ethene	ND	RO treated Injection Water
	Injection 05 Rohr	8/24/10	Methane	380	RO treated Injection Water
	Injection 05 Rohr	8/30/10	Ethane	ND	RO treated Injection Water
	Injection 05 Rohr	8/30/10	Ethene	ND	RO treated Injection Water
	Injection 05 Rohr	8/30/10	Methane	150	RO treated Injection Water
	Injection 05 Rohr	9/7/10	Ethane	0.4	RO treated Injection Water
	Injection 05 Rohr	9/7/10	Ethene	ND	RO treated Injection Water
	Injection 05 Rohr	9/7/10	Methane	250	RO treated Injection Water
	Injection 05 Rohr	9/13/10	Ethane	0.52	RO treated Injection Water
	Injection 05 Rohr	9/13/10	Ethene	ND	RO treated Injection Water
	Injection 05 Rohr	9/13/10	Methane	350	RO treated Injection Water
	Injection 05 Rohr	9/22/10	Ethane	0.63	RO treated Injection Water
	Injection 05 Rohr	9/22/10	Ethene	ND	RO treated Injection Water
	Injection 05 Rohr	9/22/10	Methane	190	RO treated Injection Water
	Injection 05 Rohr	9/27/10	Ethane	0.62	RO treated Injection Water
	Injection 05 Rohr	9/27/10	Ethene	ND	RO treated Injection Water
	Injection 05 Rohr	9/27/10	Methane	180	RO treated Injection Water
	Injection 06 Masters	7/15/08	Ethane	3.9	Grabbed during pump testing
	Injection 06 Masters	7/15/08	Methane	6,300	Grabbed during pump testing
	Injection 07 Walden	7/29/08	Ethane	12	Grabbed during pump testing
	Injection 07 Walden	7/29/08	Methane	12,000	Grabbed during pump testing
	Injection 02 Gonzales	8/20/08	Ethane	2.7	Grabbed during pump testing
	Injection 02 Gonzales	8/20/08	Methane	4.2	Grabbed during pump testing
	Recovery 1 Kittleson	7/8/08	Ethane	3.0	Grabbed during pump testing
	Recovery 1 Kittleson	7/8/08	Methane	4,800	Grabbed during pump testing
	Recovery 1 Kittleson	8/4/08	Ethane	6.8	Grabbed during pump testing
	Recovery 1 Kittleson	8/4/08	Methane	6,800	Grabbed during pump testing
	Recovery 1 Kittleson	1/15/09	Ethane	2.5	IP 12/8/08
	Recovery 1 Kittleson	1/15/09	Methane	2,000	IP 12/8/08
	Recovery 1 Kittleson	7/21/09	Ethane	ND	
	Recovery 1 Kittleson	7/21/09	Ethene	ND	
	Recovery 1 Kittleson	7/21/09	Methane	2700	
	Recovery 1 Kittleson	7/30/09	Ethane	3.7	
	Recovery 1 Kittleson	7/30/09	Ethene	ND	
	Recovery 1 Kittleson	7/30/09	Methane	4100	
	Recovery 1 Kittleson	9/01/09	Ethane	7.3	
	Recovery 1 Kittleson	9/01/09	Ethene	ND	
	Recovery 1 Kittleson	9/01/09	Methane	8600	
	Recovery 1 Kittleson	10/2/09	Methane	9500	
	Recovery 1 Kittleson	11/5/09	Ethane	7.3	
	Recovery 1 Kittleson	11/5/09	Ethene	ND	
	Recovery 1 Kittleson	11/5/09	Methane	7900	
	Recovery 1 Kittleson	12/1/09	Ethane	7.5	

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
	Recovery 1 Kittleson	12/1/09	Ethene	ND	
	Recovery 1 Kittleson	12/1/09	Methane	8100	
	Recovery 1 Kittleson	2/1/10	Ethane	10	
	Recovery 1 Kittleson	2/1/10	Ethene	ND	
	Recovery 1 Kittleson	2/1/10	Methane	9900	
	Recovery 1 Kittleson	3/2/10	Ethane	7.4	
	Recovery 1 Kittleson	3/2/10	Ethene	ND	
	Recovery 1 Kittleson	3/2/10	Methane	7,500	
	Recovery 1 Kittleson	4/5/10	Ethane	11	
	Recovery 1 Kittleson	4/5/10	Ethene	ND	
	Recovery 1 Kittleson	4/5/10	Methane	6,000	
	Recovery 1 Kittleson	5/3/10	Ethane	11	
	Recovery 1 Kittleson	5/3/10	Ethene	ND	
	Recovery 1 Kittleson	5/3/10	Methane	5,100	
	Recovery 1 Kittleson	6/1/10	Ethane	15	
	Recovery 1 Kittleson	6/1/10	Ethene	ND	
	Recovery 1 Kittleson	6/1/10	Methane	7,000	
	Recovery 1 Kittleson	7/6/10	Ethane	8.9	
	Recovery 1 Kittleson	7/6/10	Ethene	ND	
	Recovery 1 Kittleson	7/6/10	Methane	8400	
	Recovery 1 Kittleson	8/9/10	Ethane	35	Phase 2 water to RO
	Recovery 1 Kittleson	8/9/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	8/9/10	Methane	6200	Phase 2 water to RO
	Recovery 1 Kittleson	8/16/10	Ethane	33	Phase 2 water to RO
	Recovery 1 Kittleson	8/16/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	8/16/10	Methane	8000	Phase 2 water to RO
	Recovery 1 Kittleson	8/24/10	Ethane	16	Phase 2 water to RO
	Recovery 1 Kittleson	8/24/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	8/24/10	Methane	4900	Phase 2 water to RO
	Recovery 1 Kittleson	8/30/10	Ethane	7.6	Phase 2 water to RO
	Recovery 1 Kittleson	8/30/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	8/30/10	Methane	2800	Phase 2 water to RO
	Recovery 1 Kittleson	9/7/10	Ethane	15	Phase 2 water to RO
	Recovery 1 Kittleson	9/7/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	9/7/10	Methane	4900	Phase 2 water to RO
	Recovery 1 Kittleson	9/13/10	Ethane	22	Phase 2 water to RO
	Recovery 1 Kittleson	9/13/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	9/13/10	Methane	3000	Phase 2 water to RO
	Recovery 1 Kittleson	9/22/10	Ethane	12	Phase 2 water to RO
	Recovery 1 Kittleson	9/22/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	9/22/10	Methane	4000	Phase 2 water to RO
	Recovery 1 Kittleson	9/27/10	Ethane	4.5	Phase 2 water to RO
	Recovery 1 Kittleson	9/27/10	Ethene	ND	Phase 2 water to RO
	Recovery 1 Kittleson	9/27/10	Methane	3800	Phase 2 water to RO

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
	Recovery 2 Reiss	4/4/08	Ethane	ND	Water while drilling
	Recovery 2 Reiss	4/4/08	Methane	ND	Water while drilling
	Recovery 3 PEI	8/25/08	Ethane	13	Grabbed during pump testing
	Recovery 3 PEI	8/25/08	Methane	9,600	Grabbed during pump testing
	Recovery 3 PEI	1/16/09	Ethane	15	IP 12/8/08
	Recovery 3 PEI	1/16/09	Methane	13,000	IP 12/8/08
	Recovery 3 PEI	7/21/09	Ethane	15	
	Recovery 3 PEI	7/21/09	Ethene	2.4	
	Recovery 3 PEI	7/21/09	Methane	13000	
	Recovery 3 PEI	7/30/09	Ethane	15	
	Recovery 3 PEI	7/30/09	Ethene	ND	
	Recovery 3 PEI	7/30/09	Methane	17000	
	Recovery 3 PEI	9/01/09	Ethane	22	
	Recovery 3 PEI	9/01/09	Ethene	ND	
	Recovery 3 PEI	9/01/09	Methane	26000	
	Recovery 3 PEI	10/2/09	Methane	29000	
	Recovery 3 PEI	11/5/09	Ethane	21	
	Recovery 3 PEI	11/5/09	Ethene	ND	
	Recovery 3 PEI	11/5/09	Methane	24000	
	Recovery 3 PEI	11/12/09	Ethane	22	
	Recovery 3 PEI	11/12/09	Ethene	ND	
	Recovery 3 PEI	11/12/09	Methane	24000	
	Recovery 3 PEI	12/1/09	Ethane	20	
	Recovery 3 PEI	12/1/09	Ethene	ND	
	Recovery 3 PEI	12/1/09	Methane	25000	
	Recovery 3 PEI	2/1/10	Ethane	26	
	Recovery 3 PEI	2/1/10	Ethene	ND	
	Recovery 3 PEI	2/1/10	Methane	29000	
	Recovery 3 PEI	3/2/10	Ethane	ND	
	Recovery 3 PEI	3/2/10	Ethene	ND	
	Recovery 3 PEI	3/2/10	Methane	25,000	
	Recovery 3 PEI	4/5/10	Ethane	26	
	Recovery 3 PEI	4/5/10	Ethene	ND	
	Recovery 3 PEI	4/5/10	Methane	16,000	
	Recovery 3 PEI	5/3/10	Ethane	32	
	Recovery 3 PEI	5/3/10	Ethene	ND	
	Recovery 3 PEI	5/3/10	Methane	18,000	
	Recovery 3 PEI	6/1/10	Ethane	37	
	Recovery 3 PEI	6/1/10	Ethene	ND	
	Recovery 3 PEI	6/1/10	Methane	25,000	
	Recovery 3 PEI	7/6/10	Ethane	18	
	Recovery 3 PEI	7/6/10	Ethene	ND	
	Recovery 3 PEI	7/6/10	Methane	18000	
	Recovery 3 PEI	8/9/10	Ethane	110	Phase 2 water to RO

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
	Recovery 3 PEI	8/9/10	Ethene	ND	Phase 2 water to RO
	Recovery 3 PEI	8/9/10	Methane	19000	Phase 2 water to RO
	Recovery 3 PEI	8/16/10	Ethane	75	Phase 2 water to RO
	Recovery 3 PEI	8/16/10	Ethene	ND	Phase 2 water to RO
	Recovery 3 PEI	8/16/10	Methane	18000	Phase 2 water to RO
	Recovery 3 PEI	8/24/10	Ethane	32	Phase 2 water to RO
	Recovery 3 PEI	8/24/10	Ethene	ND	Phase 2 water to RO
	Recovery 3 PEI	8/24/10	Methane	10000	Phase 2 water to RO
	Recovery 3 PEI	8/30/10	Ethane	43	Phase 2 water to RO
	Recovery 3 PEI	8/30/10	Ethene	ND	Phase 2 water to RO
	Recovery 3 PEI	8/30/10	Methane	14000	Phase 2 water to RO
	Recovery 3 PEI	9/7/10	Ethane	53	Grabbed during Phase 2
	Recovery 3 PEI	9/7/10	Ethene	ND	Grabbed during Phase 2
	Recovery 3 PEI	9/7/10	Methane	12000	Grabbed during Phase 2
	Recovery 3 PEI	9/22/10	Ethane	30	Grabbed during Phase 2
	Recovery 3 PEI	9/22/10	Ethene	ND	Grabbed during Phase 2
	Recovery 3 PEI	9/22/10	Methane	8400	Grabbed during Phase 2
	Recovery 3 PEI	9/27/10	Ethane	8.4	Grabbed during Phase 2
	Recovery 3 PEI	9/27/10	Ethene	ND	Grabbed during Phase 2
	Recovery 3 PEI	9/27/10	Methane	8900	Grabbed during Phase 2
	Recovery 4 Barrett	7/10/08	Ethane	5	Grabbed during pump testing
	Recovery 4 Barrett	7/10/08	Methane	3,500	Grabbed during pump testing
	Recovery 4 Barrett	3/12/09	Ethane	12	IP 2/10/09
	Recovery 4 Barrett	3/12/09	Ethene	48	IP 2/10/09
	Recovery 4 Barrett	3/12/09	Methane	8,600	IP 2/10/09
	Recovery 5 Masters	5/4/10	Ethane	19	
	Recovery 5 Masters	5/4/10	Ethene	ND	
	Recovery 5 Masters	5/4/10	Methane	13,000	
	Recovery 5 Masters	6/1/10	Ethane	22	
	Recovery 5 Masters	6/1/10	Ethene	ND	
	Recovery 5 Masters	6/1/10	Methane	19,000	
	Recovery 5 Masters	7/6/10	Ethane	ND	
	Recovery 5 Masters	7/6/10	Ethene	ND	
	Recovery 5 Masters	7/6/10	Methane	17,000	
	Recovery 5 Masters	8/9/10	Ethane	44	Grabbed during Phase 2
	Recovery 5 Masters	8/9/10	Ethene	ND	Grabbed during Phase 2
	Recovery 5 Masters	8/9/10	Methane	9700	Grabbed during Phase 2
	Recovery 5 Masters	8/16/10	Ethane	25	Grabbed during Phase 2
	Recovery 5 Masters	8/16/10	Ethene	ND	Grabbed during Phase 2
	Recovery 5 Masters	8/16/10	Methane	11000	Grabbed during Phase 2
	Recovery 5 Masters	8/24/10	Ethane	27	Grabbed during Phase 2
	Recovery 5 Masters	8/24/10	Ethene	ND	Grabbed during Phase 2
	Recovery 5 Masters	8/24/10	Methane	9900	Grabbed during Phase 2

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	Well	Sample Date	Analyte	Results (In ug/l)	Comments
	Recovery 5 Masters	8/30/10	Ethane	29	Grabbed during Phase 2
	Recovery 5 Masters	8/30/10	Ethene	ND	Grabbed during Phase 2
	Recovery 5 Masters	8/30/10	Methane	13000	Grabbed during Phase 2
	Recovery 5 Masters	9/7/10	Ethane	32	Grabbed during Phase 2
	Recovery 5 Masters	9/7/10	Ethene	ND	Grabbed during Phase 2
	Recovery 5 Masters	9/7/10	Methane	12000	Grabbed during Phase 2
	Recovery 5 Masters	9/22/10	Ethane	19	Grabbed during Phase 2
	Recovery 5 Masters	9/22/10	Ethene	ND	Grabbed during Phase 2
	Recovery 5 Masters	9/22/10	Methane	5800	Grabbed during Phase 2
	Recovery 5 Masters	9/27/10	Ethane	4.2	Grabbed during Phase 2
	Recovery 5 Masters	9/27/10	Ethene	ND	Grabbed during Phase 2
	Recovery 5 Masters	9/27/10	Methane	6400	Grabbed during Phase 2
<b>POCI 55</b>	POCI 55	8/19/09	Methane	7800	Pre Phase 2
	POCI 55	8/19/09	Ethene	ND	Pre Phase
	POCI 55	8/19/09	Ethane	11	Pre Phase
<b>Wells within 1 mile of Mitigation System</b>	Angely, J	3/26/08	Ethane	35	by COGCC
	Angely, J	3/26/08	Methane	15,000	by COGCC
	Barrett, T	6/24/09	Methane	18,000	
	Barrett, T	6/24/09	Ethane	11	
	Barrett, T	6/24/09	Ethene	12	
	Bergman	6/29/09	Ethane	ND	Grabbed during pump testing
	Bergman	6/29/09	Ethene	ND	Grabbed during pump testing
	Bergman	6/29/09	Methane	2,300	Grabbed during pump testing
	Burge, K	8/5/08	Methane	3,900	
	Burge, K	12/18/08	Ethane	2.3	
	Burge, K	12/18/08	Methane	3,600	
	Burge, K	6/9/09	Ethane	3	
	Burge, K	6/9/09	Ethene	2.4	
	Burge, K	6/9/09	Methane	3,300	
	Coleman, V	3/1/08	Methane	4,600	filtered via house water filter
	Coleman, V	9/23/07	Methane	4,300	filtered via house water filter
	Coleman, V	9/23/07	Methane	5,000	raw- not filtered
	Coleman, V	3/1/08	Methane	5,100	raw- not filtered
	Coleman, V	12/4/08	Ethane	7	raw- not filtered
	Coleman, V	12/4/08	Methane	5,900	raw- not filtered
	Coleman, V	5/9/09	Ethene	2.4	raw- not filtered
	Coleman, V	5/9/09	Ethane	9	raw- not filtered
	Coleman, V	5/9/09	Methane	6,100	raw- not filtered
	Conley, J	3/24/08	Methane	ND	
Conley, J	12/4/08	Ethane	ND		
Conley, J	12/4/08	Methane	1.5		
Conley, J	6/15/09	Ethane	1.6		
Conley, J	6/15/09	Ethene	2.4		

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
	Conley, J	6/15/09	Methane	2.5	
	Dee	6/30/09	Ethane	ND	Grabbed during pump testing
	Dee	6/30/09	Ethene	ND	Grabbed during pump testing
	Dee	6/30/09	Methane	5.7	Grabbed during pump testing
	Derowitsch, D	3/1/08	Methane	4,000	
	Derowitsch, D.	1/15/09	Ethane	4.1	
	Derowitsch, D.	1/15/09	Methane	2,200	
	Derowitsch, D.	4/15/10	Ethane	10	
	Derowitsch, D.	4/15/10	Ethene	ND	
	Derowitsch, D.	4/15/10	Methane	3,700	
	English, B	3/14/08	Methane	ND	
	English, B	12/8/08	Ethane	ND	
	English, B	12/8/08	Methane	ND	
	English, B	7/8/09	Ethane	ND	
	English, B	7/8/09	Ethene	ND	
	English, B	7/8/09	Methane	ND	
	Hopke, B	2/25/08	Methane	5,900	
	Hopke, B	3/26/08	Ethane	11	by COGCC
	Hopke, B	3/26/08	Methane	3,000	by COGCC
	Hopke, B	12/31/08	Ethane	ND	
	Hopke, B	12/31/08	Methane	660	
	Hopke, B	6/22/09	Methane	4,200	
	Hopke, B	6/22/09	Ethane	7.2	
	Hopke, B	6/22/09	Ethene	2.4	
	Hoppe, C	10/23/08	Ethane	ND	
	Hoppe, C	10/23/08	Methane	19	
	Houghtling, J	2/25/08	Methane	9.2	
	Kerman, T	3/1/08	Methane	170	
	Kerman, T	12/4/08	Ethane	ND	
	Kerman, T	12/4/08	Methane	1.1	
	Kerman, T	7/8/09	Ethane	ND	
	Kerman, T	7/8/09	Ethene	ND	
	Kerman, T	7/8/09	Methane	ND	
	Kerman, T WW	11/30/09	Methane	ND	Grabbed from hydrant before cistern
	Kerman, T WW	11/30/09	Ethane	ND	
	Kerman, T WW	11/30/09	Methane	0.78	
	Kerman, T House	11/30/09	Ethane	ND	Grabbed from house after cistern
	Kerman, T House	11/30/09	Ethene	ND	
	Kerman, T House	11/30/09	Methane	ND	
	Masters, T	6/29/09	Ethane	10	
	Masters, T	6/29/09	Ethene	2.4	
	Masters, T	6/29/09	Methane	14,000	
	McPherson	3/29/08	Methane	54	
	McPherson, P	12/4/08	Ethane	ND	

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
	McPherson, P	12/4/08	Methane	950	
	McPherson, P	6/3/09	Ethane	16	
	McPherson, P	6/3/09	Ethene	24	
	McPherson, P	6/3/09	Methane	1,700	
	Rohr, W	7/6/09	Ethane	ND	Grabbed during pump testing
	Rohr, W	7/6/09	Ethene	ND	Grabbed during pump testing
	Rohr, W	7/6/09	Methane	800	Grabbed during pump testing
	Searle, S	3/14/08	Methane	7.5	
	Searle, S	12/8/08	Ethane	ND	
	Searle, S	12/8/08	Methane	5.8	
<b>Wells on RRR ex near Mitigation System</b>	Campbell, J	2/23/09	Ethane	0.6	
	Campbell, J	2/23/09	Methane	110	
	Goodwin, R	3/14/08	Methane	240	
	Goodwin, R	12/15/08	Ethane	ND	
	Goodwin, R	12/15/08	Methane	ND	
	Goodwin, R	6/29/09	Ethane	1.6	
	Goodwin, R	6/29/09	Ethene	2.4	
	Goodwin, R	6/29/09	Methane	5.2	
	Goodwin, R WW	11/30/08	Ethane	ND	Grabbed from hydrant before cistern
	Goodwin, R WW	11/30/08	Ethene	ND	
	Goodwin, R WW	11/30/08	Methane	ND	
	Goodwin, R Cistern	11/30/09	Ethane	ND	Grabbed from cistern
	Goodwin, R Cistern	11/30/09	Ethene	ND	
	Goodwin, R Cistern	11/30/09	Methane	ND	
	Rhoads, K	2/23/09	Methane	21	
	Roloff, B	8/5/08	Methane	3,800	
	Speh, D	10/8/08	Methane	7,200	
	Wolahan	3/10/08	Methane	75	
	Wolahan, E	12/4/08	Ethane	ND	
	Wolahan, E	12/4/08	Methane	210	
	Wolahan, E	6/4/09	Methane	24	
	Wolahan, E	6/4/09	Ethene	2.4	
	Wolahan, E	6/4/09	Ethane	1.6	
Meyer, J	4/29/09	Ethane	ND		
Meyer, J	4/29/09	Methane	19,000		
<b>Wells on Silver Spurs Ranch unless noted</b>	Goza, C	1/15/09	Ethane	1.4	Blackhawk Ranch
	Goza, C	1/15/09	Methane	580	Blackhawk Ranch
	Gumpert, K	8/5/08	Methane	1,700	
	Sample, Mitch	3/10/08	Methane	19,000	
	Sample, Mitch WW	11/30/09	Ethane	ND	Grabbed before cistern
	Sample, Mitch WW	11/30/09	Ethene	ND	
	Sample, Mitch WW	11/30/09	Methane	48,000	
	Sample, Mitch Cistern	11/30/09	Ethane	23	Grabbed from cistern
	Sample, Mitch Cistern	11/30/09	Ethene	ND	

**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
	Sample, Mitch Cistern	11/30/09	Methane	15,000	
	Stephens, K	9/30/08	Methane	ND	
	Evenden, V	9/30/08	Methane	20,000	
	Evenden, V	8/26/09	Ethane	2.5	
	Evenden, V	8/26/09	Ethene	2.4	
	Evenden, V	8/26/09	Methane	7,700	
	Evenden, V	10/7/09	Ethane	ND	
	Evenden, V	10/7/09	Ethene	ND	
	Evenden, V	10/7/09	Methane	22,000	
	Fitzner, P	12/1/08	Methane	4,600	
	Fitzner, P WW	11/30/09	Ethane	ND	Grabbed from hydrant before cistern
	Fitzner, P WW	11/30/09	Ethene	ND	
	Fitzner, P WW	11/30/09	Methane	2,100	
	Fitzner, P Cistern	11/30/09	Ethane	ND	Grabbed from cistern
	Fitzner, P Cistern	11/30/09	Ethene	ND	
	Fitzner, P Cistern	11/30/09	Methane	2,000	
	Geisklbrecht, G	9/30/08	Methane	ND	
	Geisklbrecht	1/27/10	Ethane	ND	Grabbed at water hydrant
	Geisklbrecht	1/27/10	Ethene	ND	
	Geisklbrecht	1/27/10	Methane	ND	
	Haynes, E	6/4/09	Methane	0.8	
	Haynes, E	6/4/09	Ethane	1.6	
	Haynes, E	6/4/09	Ethene	2.4	
	Morine, J	1/15/09	Methane	14	
	Palmer (GIS)	10/1/08	Methane	ND	
	Palmer (GIS)	1/27/10	Ethane	ND	Grabbed at water hydrant
	Palmer (GIS)	1/27/10	Ethene	ND	
	Palmer (GIS)	1/27/10	Methane	ND	
	Stetler	3/20/09	Methane	20,000	
	Stetler	3/20/09	Ethane	50	
	Stetler, J WW	11/30/09	Ethane	100	Grabbed before cistern
	Stetler, J WW	11/30/09	Ethene	ND	
	Stetler, J WW	11/30/09	Methane	38,000	
	Stetler, J Cistern	11/30/09	Ethane	ND	Grabbed from cistern
	Stetler, J Cistern	11/30/09	Ethene	ND	
	Stetler, J Cistern	11/30/09	Methane	22,000	
	Modlish	3/20/09	Methane	0.33	
	Modlish	3/20/09	Ethane	ND	
	Billstrand	7/31/09	Ethane	ND	
	Billstrand	7/31/09	Ethene	ND	
	Billstrand	7/31/09	Methane	0.42	
	Bruington	7/6/09	Ethane	12	Grabbed during pump testing
	Bruington	7/6/09	Ethene	2.4	Grabbed during pump testing



**Table 2: Sampling of Dissolved Gases in Water Wells  
 (results received from August 2010 sampling)**

	<b>Well</b>	<b>Sample Date</b>	<b>Analyte</b>	<b>Results (In ug/l)</b>	<b>Comments</b>
	Bruington	7/6/09	Methane	7,900	Grabbed during pump testing
	Eddleman, P	8/28/09	Ethane	ND	
	Eddleman, P	8/28/09	Ethene	ND	
	Eddleman, P	8/28/09	Methane	29,000	
	Eddleman, P WW	11/30/09	Ethane	ND	Grabbed before cistern
	Eddleman, P WW	11/30/09	Ethene	ND	
	Eddleman, P WW	11/30/09	Methane	45,000	
	Eddleman, P WWIIA	11/30/09	Ethane	ND	Filled 100 gallon stock tank and agitated with small submersible pump for 2.5 hrs then grabbed sample
	Eddleman, P WWIIA	11/30/09	Ethene	ND	
	Eddleman, PWWIIA	11/30/09	Methane	2,100	
	Wyland, R	9/8/09	Ethane	ND	
	Wyland, R	9/8/09	Ethene	ND	
	Wyland, R	9/8/09	Methane	3	
	Schafer, R	10/2/09	Methane	21	City Ranch
<b>Other</b>	Rohr 04-14	11/11/07	Methane	10,070	CBM water
	Rohr 09-04	11/11/07	Methane	6,350	CBM water
	Rohr 09-04	9/17/09	Ethane	3.6	CBM water pre-Phase 2
	Rohr 09-04	9/17/09	Ethene	ND	CBM water pre-Phase 2
	Rohr 09-04	9/17/09	Methane	7300	CBM water pre-Phase 2
	Rohr 09-10	9/17/09	Ethane	2.1	CBM water pre-Phase 2
	Rohr 09-10	9/17/09	Ethene	ND	CBM water pre-Phase 2
	Rohr 09-10	9/17/09	Methane	5900	CBM water pre-Phase 2
	Rohr 04-10	9/17/09	Ethane	2.3	CBM water pre-Phase 2
	Rohr 04-10	9/17/09	Ethene	ND	CBM water pre-Phase 2
	Rohr 04-10	9/17/09	Methane	6400	CBM water pre-Phase 2
	Rohr 04-10	8/9/10	Ethane	63	Phase 2, CBM water to RO
	Rohr 04-10	8/9/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	8/9/10	Methane	15000	Phase 2, CBM water to RO
	Rohr 04-10	8/16/10	Ethane	43	Phase 2, CBM water to RO
	Rohr 04-10	8/16/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	8/16/10	Methane	10000	Phase 2, CBM water to RO
	Rohr 04-10	8/24/10	Ethane	24	Phase 2, CBM water to RO
	Rohr 04-10	8/24/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	8/24/10	Methane	9900	Phase 2, CBM water to RO
	Rohr 04-10	8/30/10	Ethane	46	Phase 2, CBM water to RO
	Rohr 04-10	8/30/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	8/30/10	Methane	20000	Phase 2, CBM water to RO
	Rohr 04-10	9/7/10	Ethane	24	Phase 2, CBM water to RO
	Rohr 04-10	9/7/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	9/7/10	Methane	11,000	Phase 2, CBM water to RO
	Rohr 04-10	9/13/10	Ethane	34	Phase 2, CBM water to RO
	Rohr 04-10	9/13/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	9/13/10	Methane	9,200	Phase 2, CBM water to RO

Table 2: Sampling of Dissolved Gases in Water Wells (results received from August 2010 sampling)					
	Well	Sample Date	Analyte	Results (In ug/l)	Comments
	Rohr 04-10	9/22/10	Ethane	NN	Phase 2, CBM water to RO
	Rohr 04-10	9/22/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	9/22/10	Methane	23,000	Phase 2, CBM water to RO
	Rohr 04-10	9/27/10	Ethane	2.6	Phase 2, CBM water to RO
	Rohr 04-10	9/27/10	Ethene	ND	Phase 2, CBM water to RO
	Rohr 04-10	9/27/10	Methane	9,300	Phase 2, CBM water to RO
<b>City Ranch</b>	McEntee, RWW	7/8/10	Ethane	ND	
	McEntee, RWW	7/9/10	Ethene	ND	
	McEntee, RWW	7/10/10	Methane	1900	

ND = Not Detected

Shading indicates sampling added since last reporting period.

<b>Table 3a: Monthly Injectate Water Quality – September (grabbed at Injection 05 Rohr)</b>			
<b>Date</b>	<b>Fluoride mg/L</b>	<b>Boron µg/L</b>	<b>Dissolved Methane µg/L</b>
9/7/10			250
9/8/10	0.12	81	
9/13/10	0.12	78	350
9/22/10	0.19	88	190
9/27/10			180

<b>Table 3b: Monthly Dissolved Gas in Recovery Water – September (in µg/l)</b>				
	<b>9/7/2010</b>	<b>9/13/2010</b>	<b>9/22/2010</b>	<b>9/27/2010</b>
Recovery 1 Dissolved Gas	4,900	3,000	4,900	3,800
Recovery 3 Dissolved Gas	12,000		8,400	8,900
Recovery 5 Dissolved Gas	12,000		5,800	6,400
Rohr 04-10 Dissolved Gas	11,000	9,200	23,000	9,300

<b>Dissolved Methane in Produced Water to RO (wt. ave. Rec1, Rec3, Rohr 04-10)</b>	<b>8,749 µg/L</b>
<b>Dissolved Methane Average at Injection 05 Rohr as a Percentage of Weighted Average of Dissolved Methane in Recovery Wells</b>	<b>2.8%</b>

Table 4 Water Well Measurements for the September/October 2010 Monthly Report						
Permit Number	Name	Sampling Start Date	Last Sample	Samples Since Last Monthly Report	History (Last Updated with May 2010 Monthly Report)	If sampled, comparison of results from this period to last period
<b>Wells Within Approximately One Mile of Pumping and Injection System or of Special Interest</b>						
238689	Angely	7/5/07	10/6/10	Twice on 9/22/10, 10/6/10	Methane detected at levels >100 % LEL and above 10% CH4 by volume until approximately 4/9/08, then began dropping and reached approximately 0 by 5/28/08. Have remained at or near 0 except for jump in December 2008, March 2009 and November 2009 readings.	<ul style="list-style-type: none"> <li>• % LEL increased from 0 to 24 on 9/22/10 and then decreased to 3 on 10/6/10</li> <li>• CH4% volume increased from 0 to 1.20 on 9/22/10 and then decreased to 0.15 on 10/6/10</li> <li>• O2% volume decreased from 16.5 to 13.6 on 9/22/10 and then increased to 20.9 on 10/6/10</li> <li>• CO and H2S remain unchanged at 0 ppm</li> </ul>
257994	Barrett	7/12/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Methane detected at levels >100 % LEL and above 10% CH4 by volume. Levels have dropped since March 2009 but remain above 0 except for an occasional 0 reading. Occasionally (October 6, 2009 and March 16, 2010) higher levels of methane are observed.	<ul style="list-style-type: none"> <li>• % LEL remained at 0 with a high of 16 noted on 10/1/10</li> <li>• CH4% volume remained at 0 with a high of 0.50 noted on 9/17/10 and 10/4/10</li> <li>• O2% remained at 20.9 with lows of 20.0 noted on 10/1/10 and 10/4/10</li> <li>• CO and H2S remained unchanged at 0 ppm with a light odor of H2S noted on 10/1/10</li> </ul>
244403	Bergman	7/6/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	The methane has been variable with higher and lower values until 11/28/07 and then mostly levels at >100 %LEL and greater than 10% CH4 by volume until September 2009 when levels began to show wider variances in %LEL and CH4 of between >100 and 13.00 and as low as 0 in February 2010.	<ul style="list-style-type: none"> <li>• % LEL decreased from 89 to 80 with a low of 70 noted on 9/17/10, 10/4/10, and 10/8/10</li> <li>• CH4% volume decreased from 4.45 to 4.0 with a low of 3.50 noted on 9/17/10, 10/4/10 and 10/8/10</li> <li>• O2% decreased from 19.8 to 15</li> <li>• CO and H2S remained unchanged at 0 ppm with a light odor of H2S noted on 10/8/10 and 10/11/10</li> </ul>
181278	Bounds	7/12/07	10/6/10	10/6/10	Readings from this wellhead have been consistently at or above 100 %LEL with levels of CH4% by volume near 100. This wellhead has also shown fairly consistent low levels of H2S until 6/25/08 when H2S readings became more variable with less H2S present in general.	<ul style="list-style-type: none"> <li>• % LEL remained unchanged at 100</li> <li>• CH4% volume remained unchanged at 100</li> <li>• O2% increased from 0.9 to 4.2</li> <li>• CO remained unchanged at 0</li> <li>• H2S remained unchanged at 0 ppm</li> </ul>
169043	Burge	3/20/09	10/22/10	9/17/10, 9/20/10, 9/24/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Methane detected at levels >100 % LEL and above 10% CH4 by volume until approximately 1/17/08, then began dropping through 3/14/08 and have remained at or near 0 since that time except for a single high reading on 7/2/08 and detectable methane on 10/1 and 10/6/09.	No change from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.
267694	Coleman	7/5/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Methane detected at wellhead at levels >100 % LEL and above 5% CH4 by volume until approximately 8/15/07, then began dropping with no methane detected since 10/30/07. Well vent has shown more variable and generally higher readings than the wellhead.	At the wellhead and well vent no change from previous measurements with 0% LEL, no detectable methane; O2% volume at 20.9 and CO and H2S at 0 ppm.
235516	Colorado Switzer	7/12/07	10/22/10	9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.
255929	Conley	7/11/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.

Table 4 Water Well Measurements for the September/October 2010 Monthly Report						
Permit Number	Name	Sampling Start Date	Last Sample	Samples Since Last Monthly Report	History (Last Updated with May 2010 Monthly Report)	If sampled, comparison of results from this period to last period
260097	Dee	7/5/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead. A potentially erroneous reading of 5%LEL occurred on 7/30/09 with no detectable methane.	No change from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.
252931	Derowitsch	7/6/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Methane detected at wellhead at levels approximately 100 % LEL and mostly above 5% CH4 by volume until approximately 9/4/07, then methane levels dropped to 0 and have remained at or near 0 since that time. Both the well vent and cistern have historically shown very low to 0 levels of methane. Late September to December 2009 readings at the well vent indicated levels of methane although the wellhead and cistern showed no detectable methane during that time period.	At the wellhead, well vent and cistern no change from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.
235515	English	8/16/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from previous measurements at the wellhead and cistern with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
16861-F	Golden Cycle Land	7/12/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Readings initially showed methane at 100% LEL and greater than 20% by volume CH4, but dropped to 0 by 9/24/07 and remained at 0 (with two readings above 0 on 11/16/07 and 4/23/08) until 10/20/08. Starting 10/20/08 methane was once again detected at higher values along with CO at high levels and showings of H2S.	<ul style="list-style-type: none"> <li>• %LEL remained unchanged at &gt;100</li> <li>• CH4% volume increased from 35.00 to 39.00 with a high of 74.00 noted on 9/24/10</li> <li>• O2% remained unchanged at 0 CO decreased from 176 to 150 with a high of 200 on 10/4/10</li> <li>• H2S decreased from 9 to 8.5 with a high of 15.5 noted on 9/24/10 and a low of 0 noted on 9/17/10, 10/4/10, and 10/15/10</li> </ul>
253317	Gonzalez	7/12/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from previous measurements at the wellhead with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
256504	Hopke	7/5/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Readings consistently measure methane at >100% LEL and at values of CH4% by volume fairly consistently above 20 until late 2009 when levels dropped to between 10 and 20. The well has shown an overall slow decline in CH4 % by volume over time. H2S also has shown a decline over time such that most recent readings have been at or slightly above 0. No methane has ever been detected at the cistern.	At the wellhead: <ul style="list-style-type: none"> <li>• % LEL remained unchanged at &gt;100</li> <li>• CH4% volume decreased from 17 to 15 with a high of 20 noted on 9/17/10 and 10/8/10 and a low of 5 noted on 9/20/10</li> <li>• O2% volume decreased from 16.5 to 14.3 with a high of 20 noted on 9/20/10 and 10/8/10 and a low of 14 noted on 9/17/10</li> <li>• CO remained unchanged at 0 ppm with light odor noted on 10/4/10, 10/8/10, and 10/22/10</li> </ul> At the cistern: no changes from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.

Table 4 Water Well Measurements for the September/October 2010 Monthly Report						
Permit Number	Name	Sampling Start Date	Last Sample	Samples Since Last Monthly Report	History (Last Updated with May 2010 Monthly Report)	If sampled, comparison of results from this period to last period
236272	Houghtling	7/6/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Methane levels at this wellhead have been consistently >100% LEL with CH4% by volume fairly consistently above 20 with an occasional lower values (but not 0). No methane has ever been detected at the cistern.	At the wellhead: <ul style="list-style-type: none"> <li>% LEL remained unchanged at &gt;100</li> <li>CH4% volume decreased from 88 to 80 with a high of 100 noted on 9/27/10 and a low of 65 noted on 10/4/10 increased from 0 to 1 with a high of 10.5 noted on 10/4/10</li> <li>CO and H2S remained unchanged at 0 with a light odor of H2S noted on 10/1/10, 10/4/10, and 10/11/10</li> </ul> At the cistern: no changes from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.
35292	Kerman/Hanson	7/6/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Values at this wellhead have been at or near 0 with two readings of >100% LEL and greater than 5% by volume CH4 on 12/2/08 and 12/22/08 and detectable methane readings in July, August and December 2009. No methane has ever been detected at the cistern.	No change from at the wellhead or cistern with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
	Lively 10-02	12/22/2008	10/22/10	10/22/10	Readings from this well started with mostly 0 to low levels of methane but have been moving upward with late 2009 readings showing detectable levels more consistently with some readings as high as >100 % LEL. CH4% volume remains below 5%. Some non detectable readings still also occur with early 2010 showing lower overall readings and many non detect readings.	At the wellhead: <ul style="list-style-type: none"> <li>% LEL remained at 0</li> <li>CH4% remained at 0</li> <li>O2% decreased from 20.9 to 20</li> <li>CO and H2S remained at 0</li> </ul>
222539	Lively	7/6/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
16861-F	Masters #1	8/13/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.
271136	May	7/12/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
84108-A	McPherson	7/6/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.

Table 4 Water Well Measurements for the September/October 2010 Monthly Report						
Permit Number	Name	Sampling Start Date	Last Sample	Samples Since Last Monthly Report	History (Last Updated with May 2010 Monthly Report)	If sampled, comparison of results from this period to last period
84106	Rohr	7/06/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
123144	Searle	7/11/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
239657	Smith	7/5/07	10/22/10	9/17/10, 9/20/10, 9/24/10, 9/27/10, 10/1/10, 10/4/10, 10/8/10, 10/11/10, 10/15/10, 10/18/10, 10/22/10	Detectable methane in early readings with % LEL at 100 or greater and % by volume of CH4 at up to 100. Began showing some variability in readings on 9/9/07 eventually decreasing until levels at 0 beginning 5/5/08. Three readings since that time on 5/21/08, 10/27/08 and 7/13/09 have shown >100% LEL and CH4 % by volume at or above 5. October 2009 reading showed low levels (18% LEL and 0.9% CH4 by volume).	At the well head no change from previous measurements with 0% LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm. At the well vent: <ul style="list-style-type: none"> <li>• % LEL remained unchanged at &gt;100</li> <li>• CH4% volume remained unchanged at 22 with a high of 30 noted on 9/27/10 and 10/8/10 and a low of 15 noted on 9/24/10 and 10/15/10</li> <li>• O2% volume remained unchanged at 14 with a high of 18.5 noted on 10/15/10 and a low of 9.8 noted on 9/27/10</li> <li>• CO and H2S remained unchanged at 0 ppm</li> </ul> At the cistern all values remained unchanged with 0 %LEL, no detectable methane, O2% volume at 20.9 and CO and H2S at 0 ppm.
	BLM 15-12	6/1/09	10/22/10	9/20/10, 10/22/10	Detectable methane with >100% LEL and CH4 % volume of greater than 70 and limited O2% volume.	<ul style="list-style-type: none"> <li>• % LEL remained unchanged at &gt;100</li> <li>• CH4% volume decreased from 50 to 45 with a high of 60 noted on 9/20/10</li> <li>• O2% volume remained unchanged at 0</li> <li>• CO and H2S remained unchanged at 0 ppm</li> </ul>
<b>Wells Within or in Close Proximity to River Ridge Ranch Subdivision</b>						
249362	Andexler	9/9/07	10/22/10	10/22/10	Several readings (3/25/09, 7/30/09 and October 2009) have shown less the 0.25% CH4 methane, otherwise no detectable methane.	<ul style="list-style-type: none"> <li>• % LEL remained at 0</li> <li>• CH4% remained at 0</li> <li>• O2% increased from 14.7 to 20.9</li> <li>• CO remained at 0</li> <li>• H2S decreased from 2.5 to 0</li> </ul>
215706	Brice	7/12/07	10/22/10	10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
248680	Campbell	8/14/07	10/22/10	10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
20783	Goemmer Cattle	7/12/07	6/11/10	None	No methane has ever been detected at this wellhead.	Not measured during this reporting period.
258815	Goodwin	7/12/07	10/22/10	10/22/10	Readings have shown methane levels at or near 0 with no readings above 0 from late January 2009 through October 2009. November 2009 through February showed 2010 showed low levels of methane.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
249181	Hentschel	9/9/07	10/22/10	10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
259122	Higgins	9/26/07	10/22/10	10/22/10	No methane has ever been detected at this wellhead	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.

Table 4 Water Well Measurements for the September/October 2010 Monthly Report						
Permit Number	Name	Sampling Start Date	Last Sample	Samples Since Last Monthly Report	History (Last Updated with May 2010 Monthly Report)	If sampled, comparison of results from this period to last period
269435	Hoppe (formerly Goacher)	7/11/07	10/22/10	10/22/10	No methane has ever been detected at this wellhead	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
264581	Ireland	7/12/07	10/22/10	10/22/10	Typically no methane, but methane has been detected on 12/2/08, 12/22/08, and 1/6/09 with 100% or greater LEL and 5% by volume CH4.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
235757	Klein, Phyllis	10/14/10	10/14/10	10/14/10		<ul style="list-style-type: none"> <li>• % LEL measured at 0</li> <li>• CH4% volume measured at 0</li> <li>• O2% volume measured at 20.9</li> <li>• CO and H2S measured at 0 ppm</li> </ul>
	Lang	10/29/07	7/28/08	None	No methane has ever been detected at this wellhead.	Sampling attempted 10/11/10 but gate was locked.
93386	Lowry	7/12/07	6/11/10	None	No methane has ever been detected at this wellhead.	Not measured during this reporting period.
250369	Martin	7/12/07	10/22/10	10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
248862	Meyer	8/14/07	10/19/10	9/17/10, 10/19/10	Methane levels generally at >100% LEL and CH4 % by volume of greater than 5. Readings were a bit variable with some lower methane levels until 5/22/08 and then became consistently >100% LEL and CH4% by volume greater than 5.	<ul style="list-style-type: none"> <li>• % LEL remained unchanged at &gt;100</li> <li>• CH4% volume increased from 10 on 8/7/10 to 25 on 10/19/10</li> <li>• O2% volume decreased from 20.5 on 8/7/10 to 15.5 on 10/19/10</li> <li>• CO and H2S remained unchanged at 0 ppm</li> </ul>
192203	Rankins	7/12/07	6/21/10	None	No methane has ever been detected at this wellhead.	Not measured during this reporting period.
276994	Rhodes	9/9/08	10/19/10	9/17/10, 10/19/10	Slight LEL (5%) reported 7/30/09, but no methane detected. No methane has been detected previously or since at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
274468	Roloff	9/9/07	8/7/10	None	No methane had ever been detected at this wellhead except for low levels detected in the 8/25/09 measurement.	Sampling attempted 9/17/10 and 10/21/10 but gate was locked.
254577	Ryerson	9/9/07	10/20/10	9/17/10, 10/20/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
246775	Sharp	9/9/07	10/21/10	10/21/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
267695	Speh	9/4/07	10/22/10	9/17/10, 10/22/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
230572	Willis	7/11/07	10/21/10	9/17/10, 10/21/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
240947	Wolahan	7/12/07	10/22/10	9/17/10, 10/22/10	No detectable methane except 5/21/08, 1/27/09 and 2/9/09 with levels at 5% LEL and 0.25% by volume CH4.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
<b>City Ranch and Other Properties</b>						
	Andreatta/Carsella	8/14/07	3/17/10	None	No methane has ever been detected at this wellhead.	Not measured during this reporting period.
197472	Bartlett	8/15/07	6/22/10	None	No methane has ever been detected at this wellhead.	Not measured during this reporting period.



Table 4 Water Well Measurements for the September/October 2010 Monthly Report						
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210526	Bruington	8/7/07	10/20/10	9/20/10, 10/20/10	From start of reading to November 2009 wellhead readings have shown consistent levels of methane at >100% LEL and CH4 % by volume at greater than 50. Since November 2009 overall %LEL and CH4% volume have decreased. With no detectable methane in March 16, 2010 reading. Some CO and H2S readings in mid to late 2008 but current readings have shown little to no CO and H2S. No methane has ever been detected at the cistern.	<ul style="list-style-type: none"> <li>• % LEL decreased from 26 to 20 with a high of 30 on 9/20/10</li> <li>• CH4% volume remained at 1 with a high a 2 on 9/20/10</li> <li>• O2% volume increased from 16.9 to 18.5 with a low of 15.5 on 9/20/10</li> <li>• CO and H2S remained unchanged at 0 ppm</li> </ul>
220100	Cordova	10/30/07	10/21/10	9/20/10, 10/21/10	Initial readings were variable with readings as low as 0 and as high as >100% LEL and greater the 5% CH4 by volume. After 3/14/08 mostly readings at 0 with some readings at levels slightly above 0. Since March 2009 no detectable methane.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
191079	Brian Dale	8/15/07	10/20/10	9/17/10, 10/20/10	Variability between 0 and >100% LEL and 5% or greater CH4 by volume until 11/14/08 and since that time no methane has been detected.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
193092	Degan	8/25/08	10/21/10	9/20/10, 10/21/10	Initial readings were variable between 0 and >100% LEL and 5% by volume CH4. From 2/17/09 to March 2010 there was no detectable methane.	<ul style="list-style-type: none"> <li>• % LEL remained at 0 with a high of 5 on 9/20/10</li> <li>• CH4% volume remained at 0 with a high of 0.25 on 9/20/10</li> <li>• O2% volume remained at 20.9 with a low of 20 on 9/20/10</li> <li>• CO and H2S remained unchanged at 0 ppm</li> </ul>
	Dernell	8/15/07	10/18/10	9/17/10, 10/18/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
258651	Gonzalez	5/22/08	10/19/10	9/20/10, 10/19/10	Methane readings were >100% LEL and CH4 % by volume mostly above 20. From 4/9/09 to 7/13/09 values were reduced with % LEL below 50 and CH4 % by volume below 3. From 7/30/09 reading to present values are variable with >100 for one or more readings and then reduced to as low as 0 for one or more readings. There has been no detectable methane at the cistern.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
	Haupt #1	6/1/09	10/15/10	9/17/10, 10/15/10	Until December 2009 all readings but one have shown % LEL at >100 with CH4 % by volume at 11 or less. Beginning with December 2009 reading there have been several large variations in readings ranging from >100 to 0 %LEL and 5 to 0 %CH4 by volume.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
203536	Hurley	8/2/07	10/22/10	9/17/10, 10/22/10	Readings have fairly consistently shown >100% LEL and CH4 % by volume between 10 and 50 with several much lower readings, most recently in July and October 2009 and March 2010. H2S has also been measured, but starting around 9/08 values have been reduced to at or near 0 ppm.	<ul style="list-style-type: none"> <li>• % LEL remained at &gt;100</li> <li>• CH4% volume increased from 0 to 16</li> <li>• O2% volume decreased from 20.9 to 11.5</li> <li>• CO and H2S remained unchanged at 0 ppm with a slight odor of H2S noted on 9/17/10 and 10/22/10</li> </ul>
205195	Johnson	8/15/07	10/15/10	9/17/10, 10/15/10	Readings have shown mostly low values of methane (% LEL less than 20 and CH4 % by volume less than 1) with 0 values. The number of non detectable methane reading has shown a general increase since late 2008.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.

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193520X	McEntee	8/2/07	10/19/10	9/17/10, 10/19/10	Initially methane was detected at this wellhead at values of >100% LEL and greater than 10% by volume CH4. Starting 1/28/08 values dropped to at or near 0 with only one higher value on 2/17/09 (>100% LEL and 5% By volume CH4). Mostly no detectable methane since that time with two low level detections; one on 4/22/09 and one on 10/20/09.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
191345	Pennington	8/7/09	10/13/10	9/21/10, 10/13/10	Four readings have occurred at this well; showing detectable methane at levels of >100% LEL and CH4% by volume at 15 or less except for 10/20/09 reading which showed lower methane levels (25% LEL and 1.25% CH4 by volume)..	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
121013	Schafer	8/15/07	8/3/10	None	No methane has ever been detected at this wellhead	Not measured during this reporting period.
248983	Tobias	8/3/07	9/17/10	9/17/10	Historically this wellhead has shown wide variance between 0 and higher methane values of >100% LEL and greater than 5% by volume CH4 with no discernable long term trends.	<ul style="list-style-type: none"> <li>• % LEL increased from 87 to &gt;100</li> <li>• CH4% volume increased from 4.35 to 16</li> <li>• O2% volume increased from 18.3 to 18.5</li> <li>• CO volume remained at 0</li> <li>• H2S increased from 0 to 1 with a light odor noted</li> </ul>
<b>Silver Spurs Ranch</b>						
268180	Billstrand	8/12/08	10/20/10	9/20/10, 10/20/10	No methane has been detected at this wellhead except for low readings on 5/6/09 and 1/10/10.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
215807	Brown	12/8/08	10/20/10	9/17/10, 10/20/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
222294	Cramer	8/3/07	10/20/10	9/17/10, 10/20/10	Most methane readings have been at or near 0 with periodic higher readings.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
192509	Eddleman, Paul	1/17/08	10/20/10	9/17/10, 10/20/10	Readings mostly above >100% LEL and 5% by volume CH4 until 9/23/08 and then levels dropped to mostly 0 until 1/26/09. Since 1/26/09 readings have shown wide variability between low to 0 methane and >100% LEL and greater than 5% by volume methane. Since 6/9/09 methane levels have been more consistently higher.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
226536	Eddleman, Todd	1/17/08	8/4/10	None	Methane readings have been widely variable from 0 to >100% LEL and 5% by volume CH4.	Not measured during this reporting period.
221465	Evenden	8/2/07	10/22/10	9/17/10, 10/22/10	Methane readings have generally been at or near 0 with no detectable methane since 3/24/09 and one higher reading on 1/12/09 (>100% LEL and 5% by volume methane).	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
	Fischer	1/26/09	9/17/10	9/17/10	Only two readings have detected low levels of methane (2/17/09 and 2/18/10), other readings have not detected methane.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
214145A	Fitzner	11/18/08	10/22/10	9/17/10, 10/22/10	Methane levels have been generally at 0 but occasionally shows wide swings to >100 % LEL and 5 % CH4 by volume.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
31935	Garza-Vela	1/30/08	10/19/10	9/17/10, 10/19/10	Generally there is 0 to low methane levels except for an occasional low level reading.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.

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196372	Geiselbrecht	8/12/08	10/15/10	9/17/10, 10/15/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
246350	Gumpert	7/29/08	10/20/10	9/22/10, 10/20/10	Methane readings have been widely variable with most readings either 0 or >100% LEL and 5% by volume CH4.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
196371	Lyon	8/15/07	10/19/10	9/17/10, 10/19/10	Between 2007 and mid-2009 most methane readings have been at or near 0 with higher values of >100% LEL and 5% by volume CH4 on 5/22/08 and 4/22/09. Beginning in June of 2009 methane has been more regularly detected.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
271524-A	Modlish	1/30/08	10/15/10	9/22/10, 10/15/10	Most methane readings have been at or near 0 with higher values of >100% LEL and 5% by volume CH4 on 10/21/08 and 5/20/09.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
28093MH	Morine	9/10/08	10/22/10	9/17/10, 10/22/10	Only on reading above 0 has been detected at this wellhead. This reading occurred 1/12/09 and showed 5% LEL and 0.25% by volume CH4.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
35227MH	Morris	10/8/08	9/17/10	9/17/10	Methane readings swing widely between 0 and 100 % LEL and 0.00 and 5.00 % CH4 by volume.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
190327	Palmer	8/12/08	10/15/10	9/24/10, 10/15/10	No methane was ever been detected at this wellhead until low levels were detected in 10/19/09 and 11/6/09 readings and again on 1/19/2010.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
197128	Roberts	4/08/08	10/22/10	9/17/10, 10/22/10	Methane readings have historically been widely variable from 0 to >100% LEL and 5% by volume CH4.	<ul style="list-style-type: none"> <li>• % LEL decreased from 19 to 0</li> <li>• CH4% volume decreased from 0.95 to 0</li> <li>• O2% volume increased from 16.5 to 20.9</li> <li>• CO and H2S remained unchanged at 0 ppm</li> </ul>
271748	Sample	3/10/08	10/22/10	9/17/10, 10/22/10	Until July 2009 most of the readings from this wellhead have been no or low levels of detectable methane with higher readings on 5/22/08, 6/3/08, and 5/20/09. More consistent methane readings have occurred beginning in July 2009.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
192144	Snow	8/2/07	10/15/10	9/21/10, 10/15/10	No measurable methane until 10/4/07, then widely variable levels ranging from 0 to >100% LEL and 5% by volume CH4 with no discernable trends.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
213070	Stephens	8/12/08	10/22/10	9/17/10, 10/22/10	No methane had ever been detected at this wellhead except for low levels detected on 10/19/09.	<ul style="list-style-type: none"> <li>• % LEL decreased from 5 to 0</li> <li>• CH4% volume decreased from 0.25 to 0</li> <li>• O2% volume increased from 9.1 to 20.9</li> <li>• CO and H2S remained unchanged at 0 ppm</li> </ul>
261753	Wahl	8/5/09	8/7/10	None	No methane has ever been detected at this wellhead.	Sampling attempted 9/17/10 and 10/22/10 but gate was locked.
234839	Waltz	8/12/08	9/17/10	9/17/10	No methane has ever been detected at this wellhead.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
234836	White, Jim	1/4/08	10/15/10	9/17/10, 10/15/10	Methane levels have been widely variable between no detectable methane and methane levels at >100% LEL and 5% by volume CH4 with no discernable trends. No methane has ever been detected at the cistern.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.

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219376	White, Orlie	8/2/07	6/21/10	None	Methane values historically at low to 0 with higher values on 5/22/08 and from 9/10/08 to 10/29/08. Four detectable methane readings in 2009; on 3/26, 9/29, 10/19 and 12/17. In 2010 detectable methane appears to be increasing.	Sampling attempted 9/17/10 and 10/22/10 but gate was locked.
<b>Black Hawk Ranch</b>						
218719	Goza	1/14/09	10/15/10	9/17/10, 10/15/10	No methane has ever been detected at this wellhead except for 1/19/10 and 3/17/10 readings.	No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.
206745	Harbecke	6/11/10	10/15/10	9/17/10, 10/15/10		No change from last measurement with 0% LEL, no detectable methane, O2% at 20.9 and no CO or H2S.

<b>Table 5 Methane Readings Schedule (9 August 2010)</b>							
<u>Landowner</u>	<u>Subdivision</u>	<u>Water Level</u>	<u>Cistern</u>	<u>Bi-Monthly</u>	<u>Monthly</u>	<u>Quarterly</u>	<u>Bi-Weekly</u>
<b>Monitoring Within 1 Mile Radius or of Special Interest</b>							
Kathy Dee	River Ridge						X
R. Gonzalez	River Ridge						X
McPherson	River Ridge						X
Rohr	River Ridge						X
Houghtling	River Ridge		X				X
Kent Smith	River Ridge		X				X
Bergman	River Ridge						X
Lively	River Ridge						X
Kerman	River Ridge		X				X
Conley	River Ridge						X
Searle	River Ridge						X
Derowitsch	River Ridge		X				X
Colorado-Switzer	River Ridge						X
English	River Ridge		X				X
Golden Cycle Land (Goemmer)	River Ridge						X
Burge	La Veta Pines						X
Barrett	River Ridge						X
Hopke	River Ridge		X				X
Masters #1	River Ridge						X
Coleman	River Ridge						X
BLM 15-12	La Veta Pines				X		
Lively 10-02	River Ridge			X			

<b>Table 5 Methane Readings Schedule (9 August 2010)</b>							
<u>Landowner</u>	<u>Subdivision</u>	<u>Water Level</u>	<u>Cistern</u>	<u>Bi-Monthly</u>	<u>Monthly</u>	<u>Quarterly</u>	<u>Bi-Weekly</u>
<b>River Ridge Ranch</b>							
<b>Wolahan</b>	River Ridge		X		X		
<b>Martin</b>	River Ridge				X		
<b>Speh</b>	River Ridge				X		
<b>Lang</b>	River Ridge		X			X	
<b>Roloff</b>	River Ridge	X			X		
<b>Hoppe (Goacher)</b>	River Ridge				X		
<b>May</b>	River Ridge						X
<b>Brice</b>	River Ridge				X		
<b>Goodwin</b>	River Ridge		X		X		
<b>Ireland</b>	River Ridge				X		
<b>Andexler</b>	River Ridge		X		X		
<b>Sharp</b>	River Ridge		X		X		
<b>Ryerson</b>	River Ridge	X			X		
<b>Meyers</b>	River Ridge			X			
<b>Hentschel</b>	River Ridge				X		
<b>Rankins</b>	River Ridge					X	
<b>Lowry</b>	River Ridge					X	
<b>Goemmer Cattle</b>	River Ridge					X	
<b>Higgins</b>	River Ridge	X			X		
<b>Campbell</b>	River Ridge				X		
<b>Rhodes</b>	River Ridge				X		
<b>City Ranch</b>							
<b>T. Gonzalez</b>	City Ranch	X	X	X			
<b>Hurley</b>	City Ranch	X	X		X		
<b>Tobias</b>	City Ranch			X			

<b>Table 5 Methane Readings Schedule (9 August 2010)</b>							
<u>Landowner</u>	<u>Subdivision</u>	<u>Water Level</u>	<u>Cistern</u>	<u>Bi-Monthly</u>	<u>Monthly</u>	<u>Quarterly</u>	<u>Bi-Weekly</u>
Dale	City Ranch				X		
McEntee	City Ranch				X		
Johnson	City Ranch		X		X		
Cordova	City Ranch			X			
Dernell	City Ranch				X		
Schaefer	City Ranch					X	
Bruington	City Ranch		X	X			
Bartlett	City Ranch					X	
Pennington – Birkman	City Ranch				X		
HAUPT #1	City Ranch				X		
Deagan	City Ranch					X	
<b>Bear Creek/Silver Spurs</b>							
Andreatta/Carsella	Bear Creek				X		
Orlie White	Silver Spurs	X			X		
Evenden	Silver Spurs				X		
Roberts	Silver Spurs				X		
Snow	Silver Spurs	X			X		
Cramer	Silver Spurs	X	X		X		
Lyon	Silver Spurs				X		
Jim White	Silver Spurs		X		X		
Garza-Vela	Silver Spurs				X		
Modlish	Silver Spurs				X		
Todd Eddleman	Silver Spurs				X		
Paul Eddleman	Silver Spurs				X		
Sample	Silver Spurs		X		X		
Billstrand	Silver Spurs				X		

<b>Table 5 Methane Readings Schedule (9 August 2010)</b>							
<u>Landowner</u>	<u>Subdivision</u>	<u>Water Level</u>	<u>Cistern</u>	<u>Bi- Monthly</u>	<u>Monthly</u>	<u>Quarterly</u>	<u>Bi- Weekly</u>
Waltz	Silver Spurs				X		
Stephens	Silver Spurs				X		
Palmer (G/S)	Silver Spurs				X		
Geoselbrecht	Silver Spurs				X		
Morine	Silver Spurs				X		
Morris	Silver Spurs					X	
Brown	Silver Spurs	X			X		
Fitzner	Silver Spurs				X		
Fischer	Silver Spurs					X	
Wahl	Silver Spurs				X		
<b>Black Hawk Ranch</b>							
Goza	Black Hawk				X		

Rohr will be checked Quarterly with Rankin, Lowry, and Goemmer Cattle.  
 John Fischer location is a mine vent. If possible vent will be monitored with RMLD quarterly.

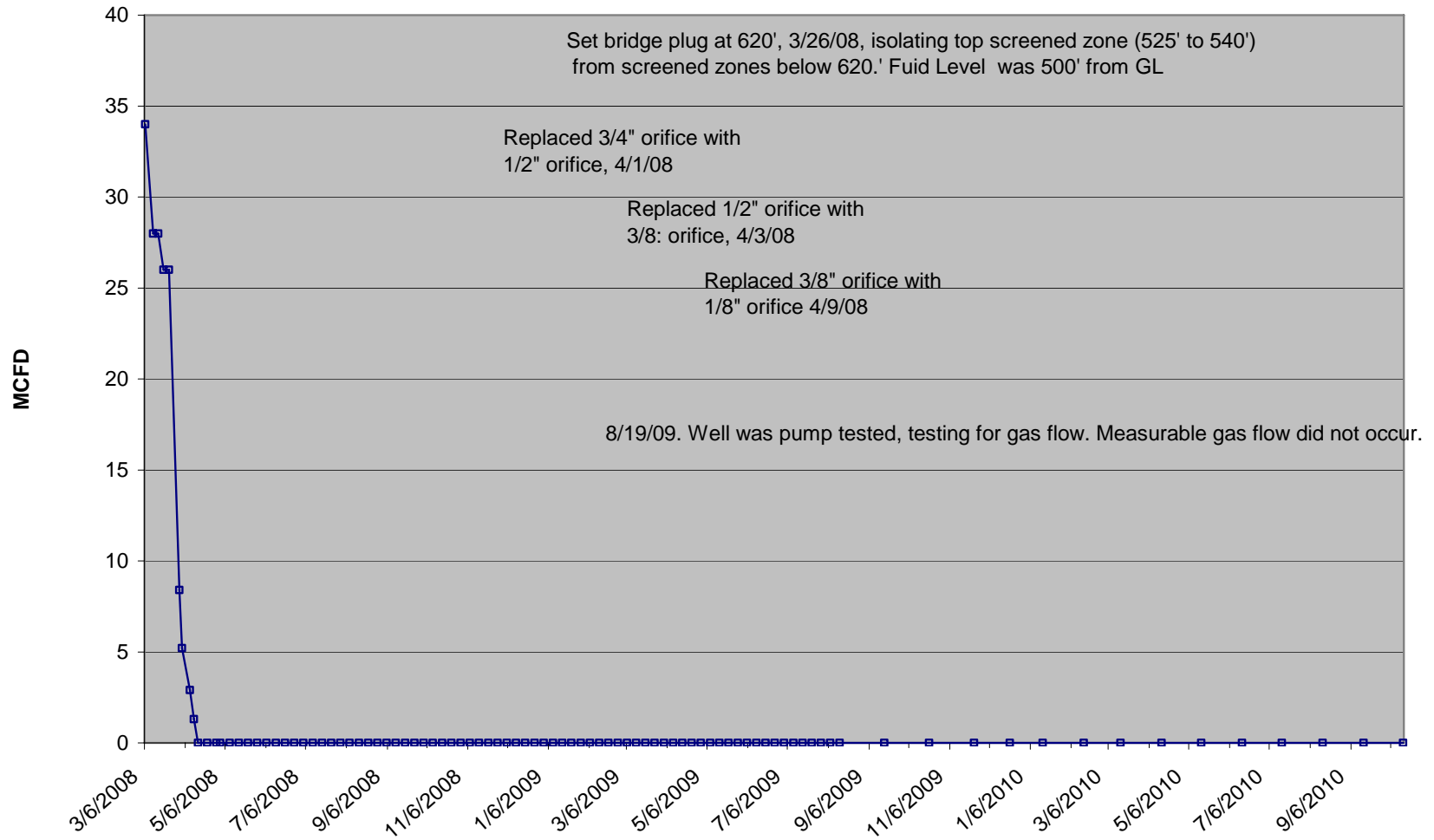


<b>Table 6 Residences Receiving Water</b>	
Jerry Angely	Has received water provided by PEI
Kent Smith	Has received water provided by PEI
Alan Cramer	Has received water provided by PEI
Tom Gonzales	Has received water provided by PEI
Spencer/Carol Snow	Has received water provided by PEI
Bruington	Has received water provided by PEI
Todd Eddleman	Has received water provided by PEI
Paul Eddleman	Has received water provided by PEI
Jim White	Has received water provided by PEI
Edward Lyon	Has received water provided by PEI
Donald Sharp	Has received water provided by PEI
Edward Johnson	Has received water provided by PEI
Richard McEntee	Has received water provided by PEI
P.C. Roberts	Has received water provided by PEI
Ireland-Murphy	Has received water provided by PEI
Keith Lightcap	Has received water provided by PEI
Bounds	To date has not received water provided by PEI
Houghtling	Added to the list in January 2010
Betty and Kathering Morris	Added to the list in September 2010

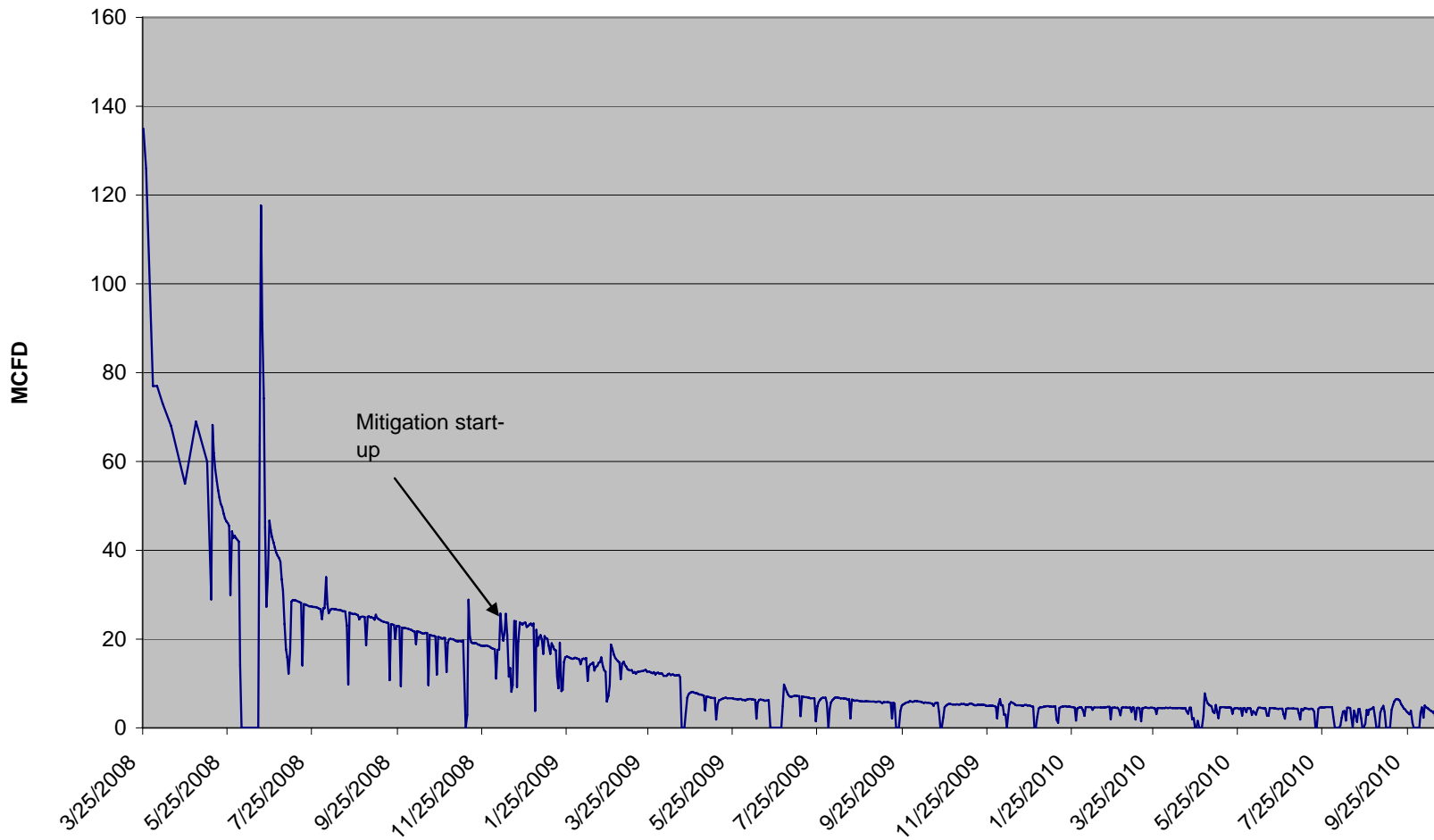
One new residence was added during this reporting period as noted above.

**Attachment 1**  
**Gas Flow in Monitoring Well POCI 55, Recovery 1 Kittleson,**  
**Recovery 3 PEI and Recovery 4 Barrett**

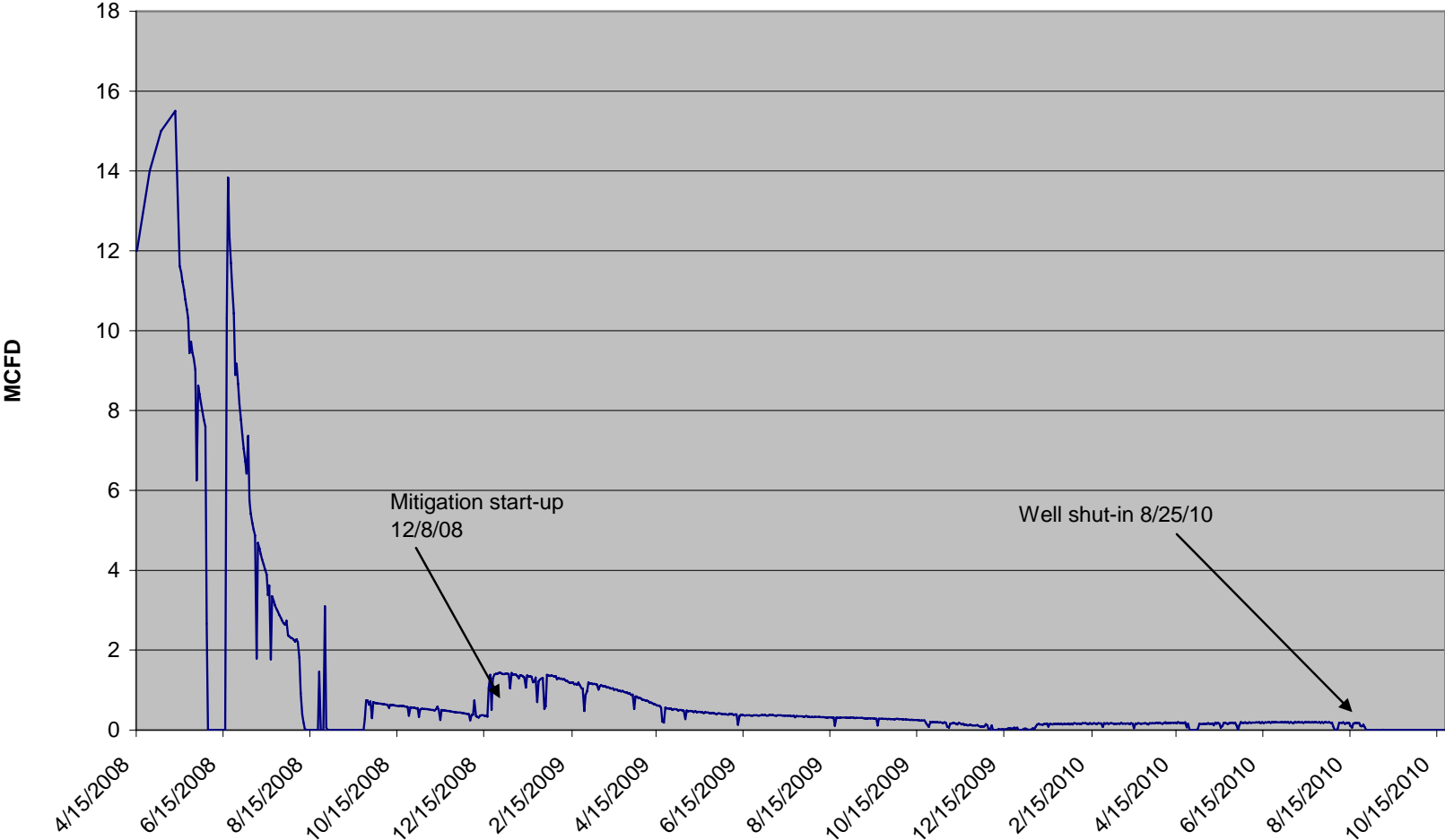
### POCI 55 MW Gas Flow from 3/6/08 to 10/15/10



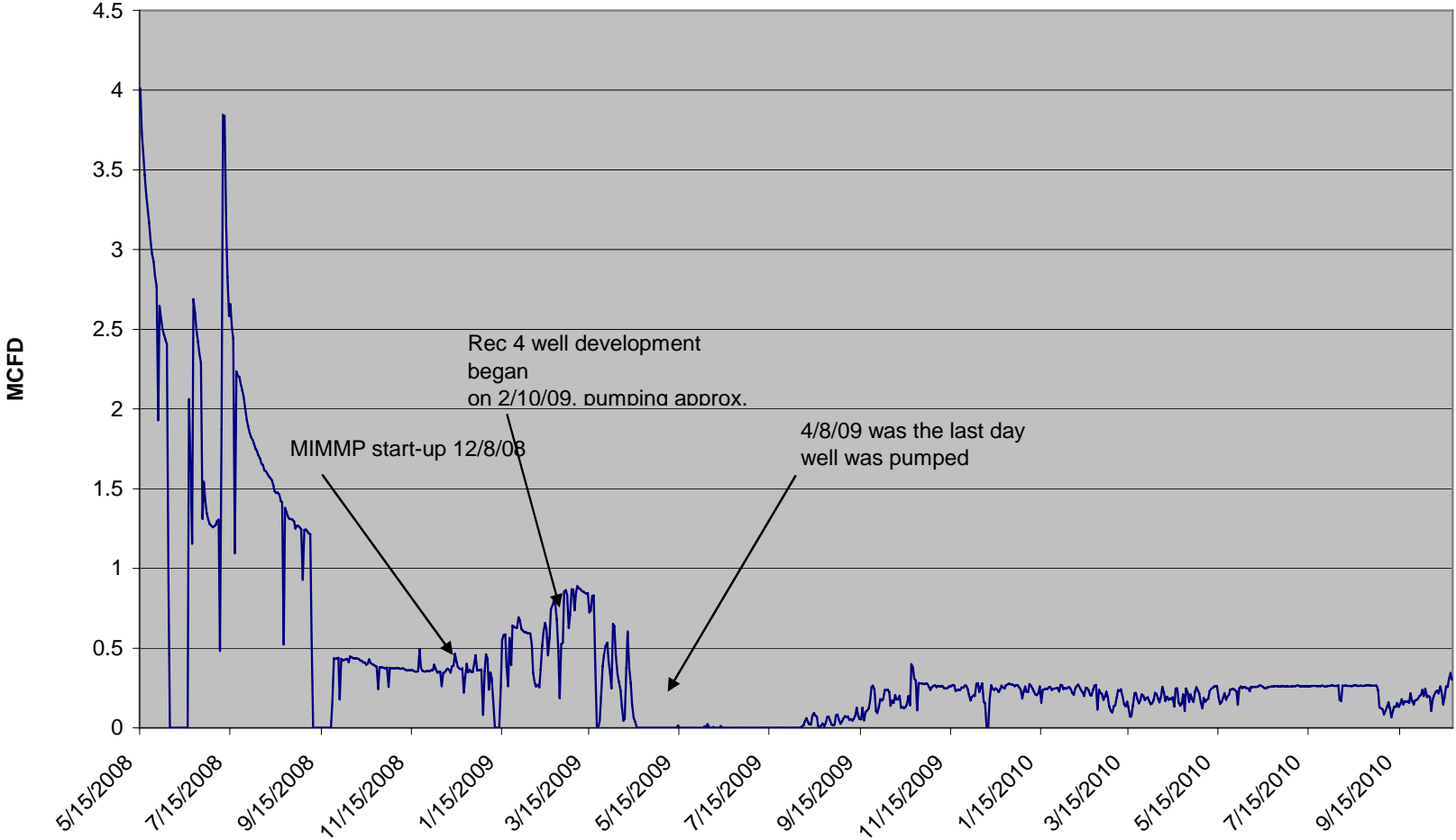
### Recovery 1 Kittleson Gas Flow from 3/25/08 to 10/20/10



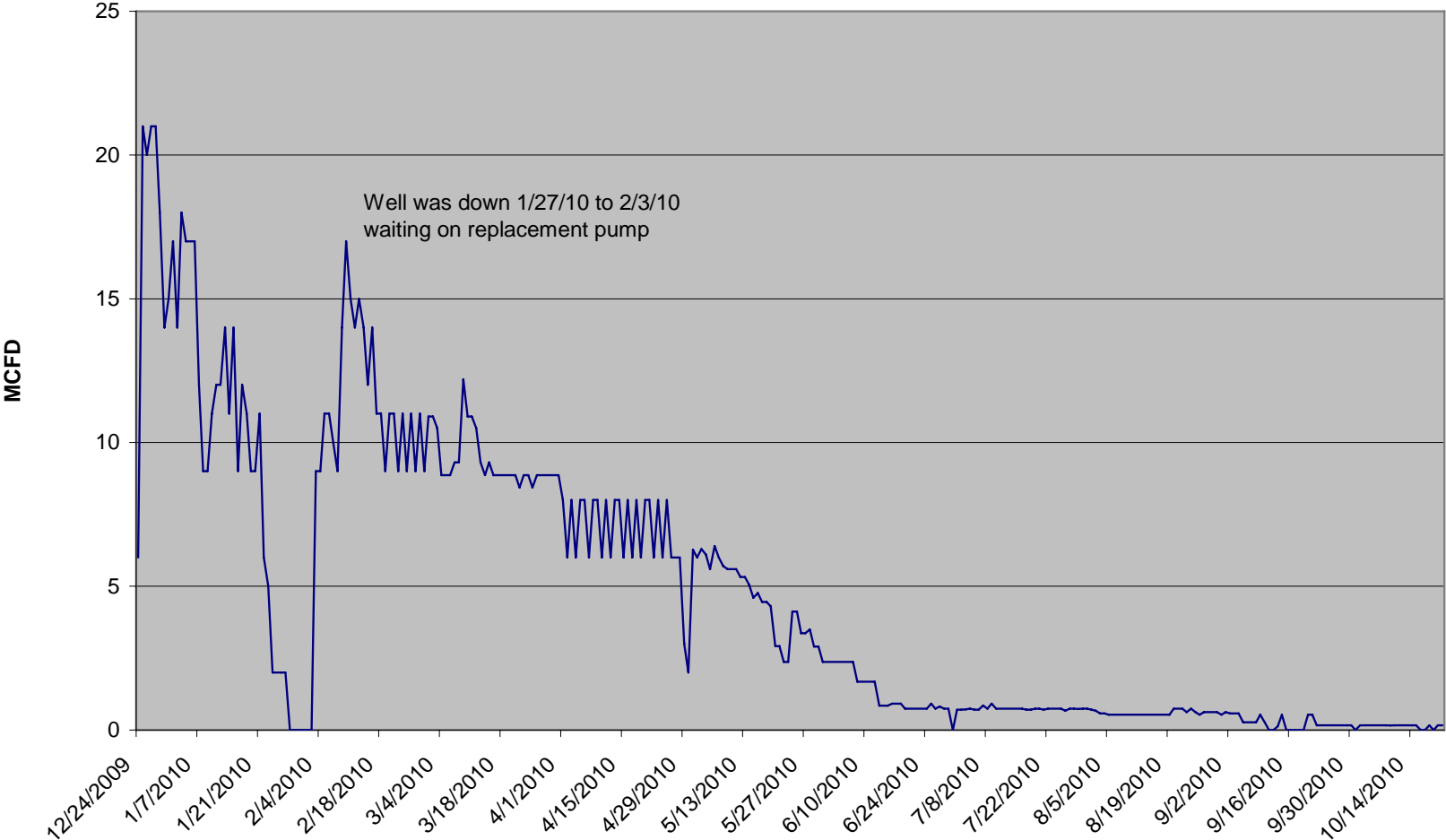
**Recovery 3 PEI Gas Flow  
from 4/15/08 to 10/20/10**



**Recovery 4 Barrett Gas Flow  
from 5/15/08 to 10/20/10**



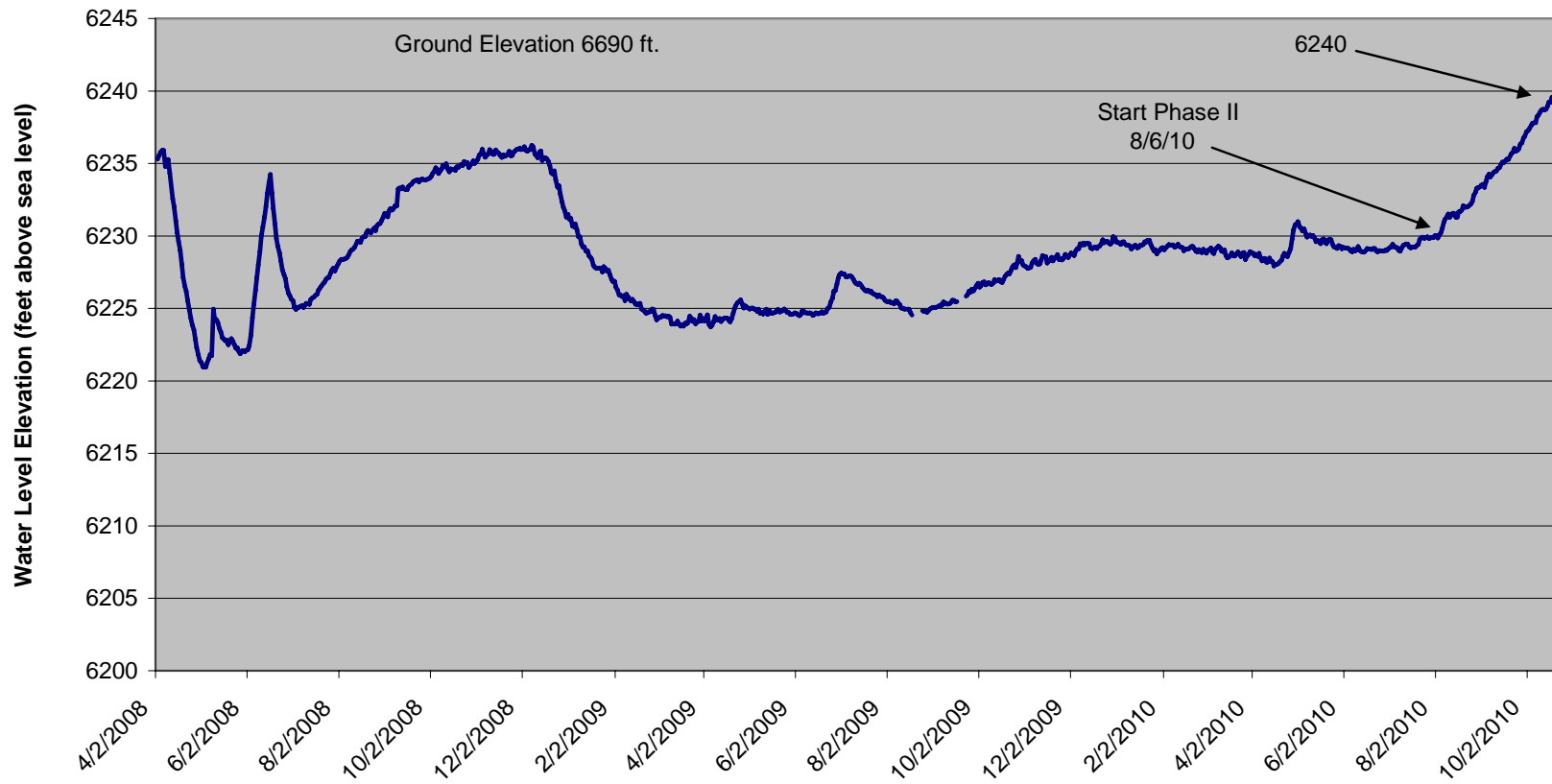
**Recovery 5 Masters Gas Flow (Masters WW 257113) from  
12/24/09 to 10/21/10**



**Attachment 2**  
**Graphs of Pressure and Fluid Level Data From**  
**POCI 55, Barrett, Bergman, Bruington, Coleman, Evenden, Garza-Vela and Meyer**

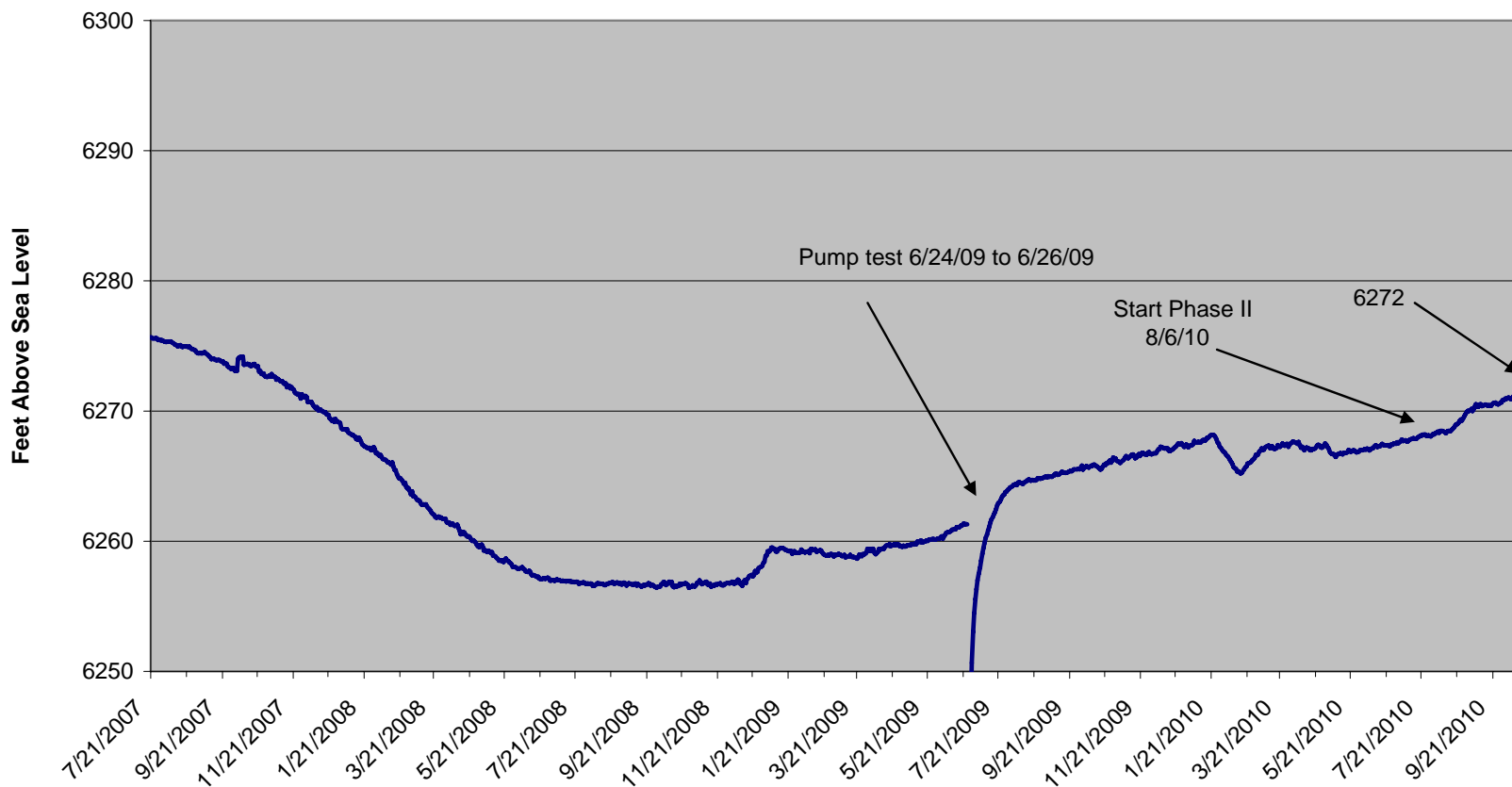


**POCI 55 Monitor Well,  
Static Water Level Elevation  
from 4/2/08 to 10/19/10  
Permit # 275819  
Lot 55 RRR, SE SW Sec 3 29S 67W, GL elev. 6690'**



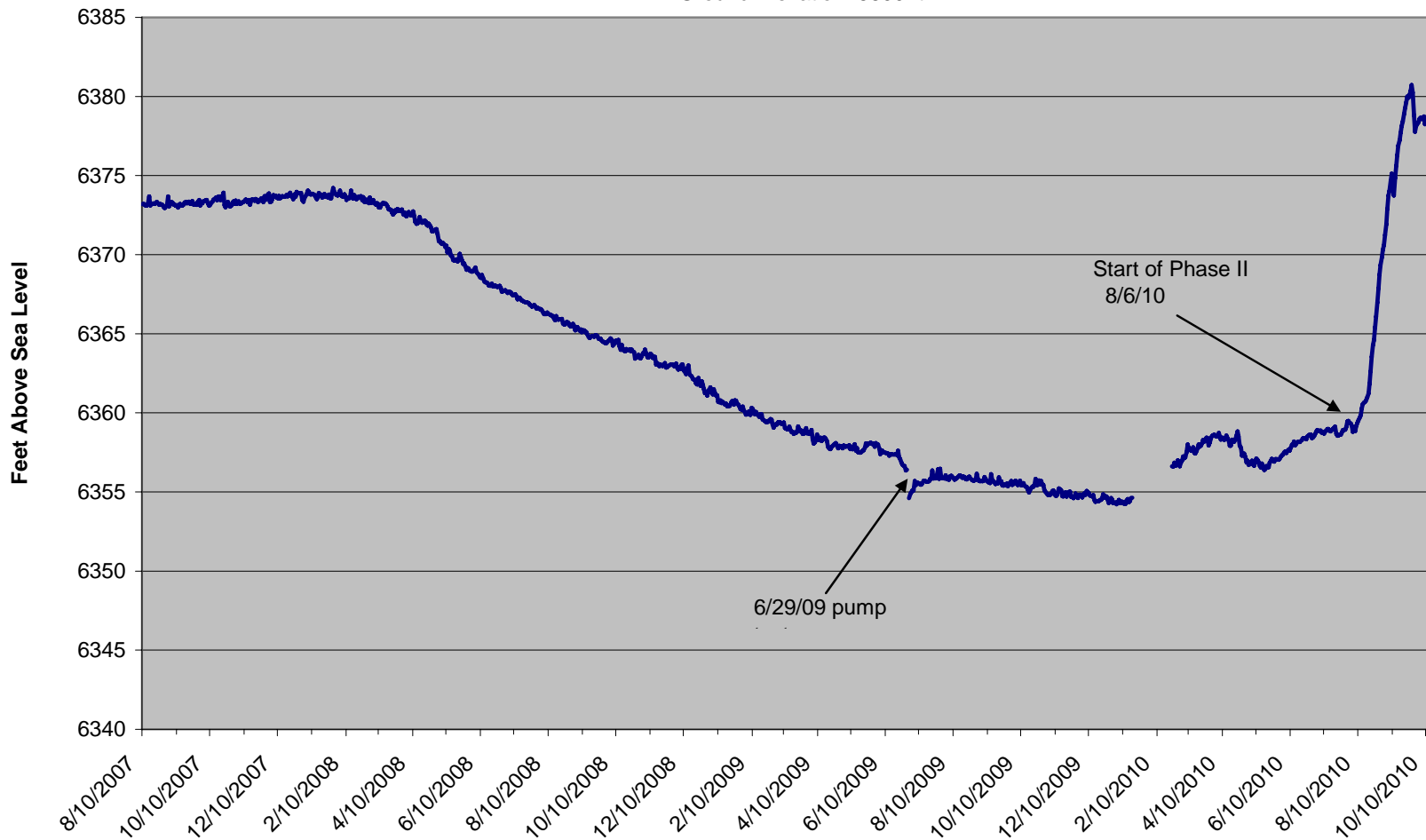
**Barrett WW**  
**Static Water Level from 7/21/07 to 10/19/10**  
**Permit # 257994**  
**Lot 57 RRR**

Ground Elevation 6707 ft.

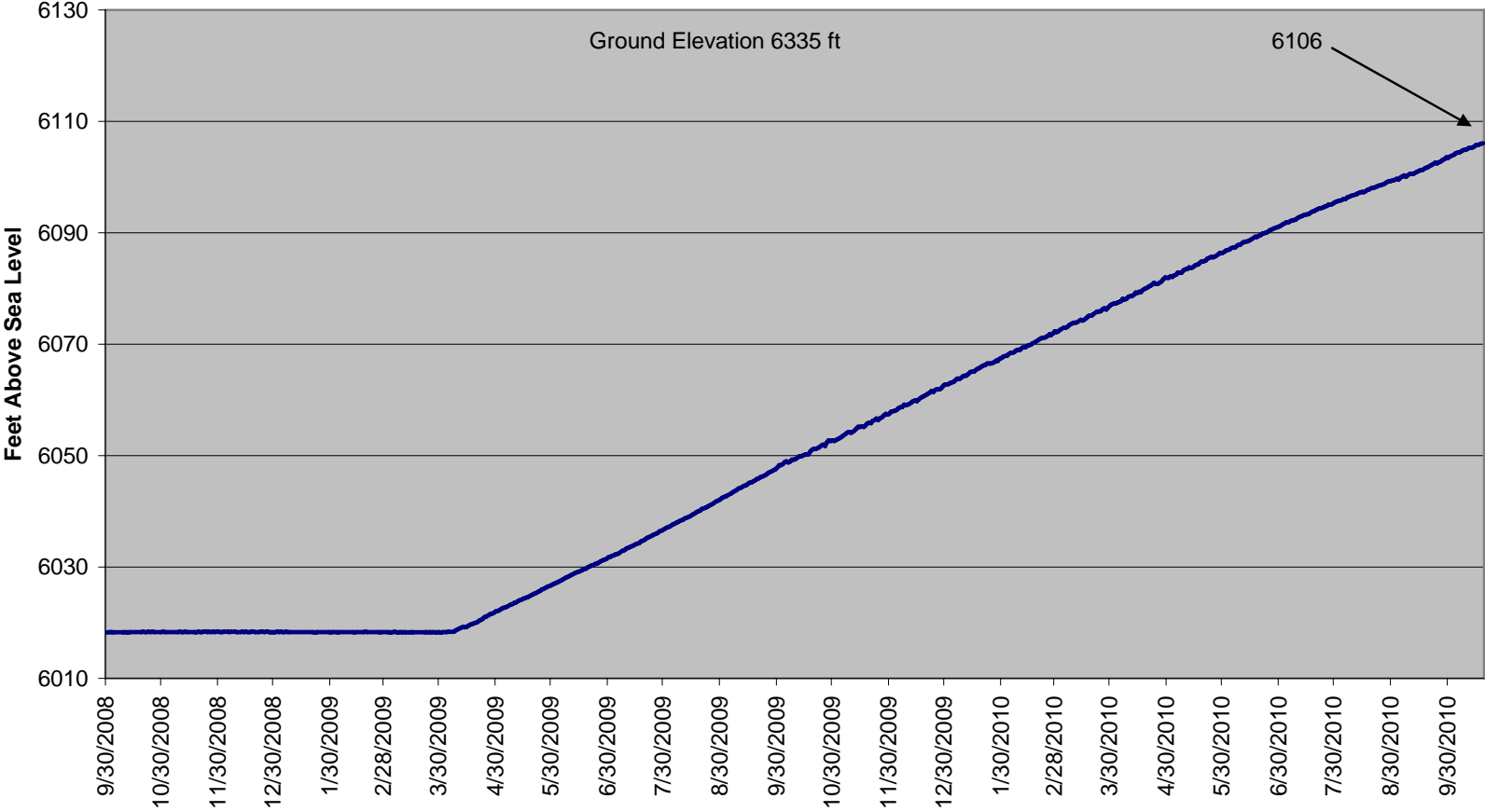


**Bergman WW, Static Water Level from 8/10/07 to 10/20/10**  
**Permit # 244403, Lot 48 RRR**

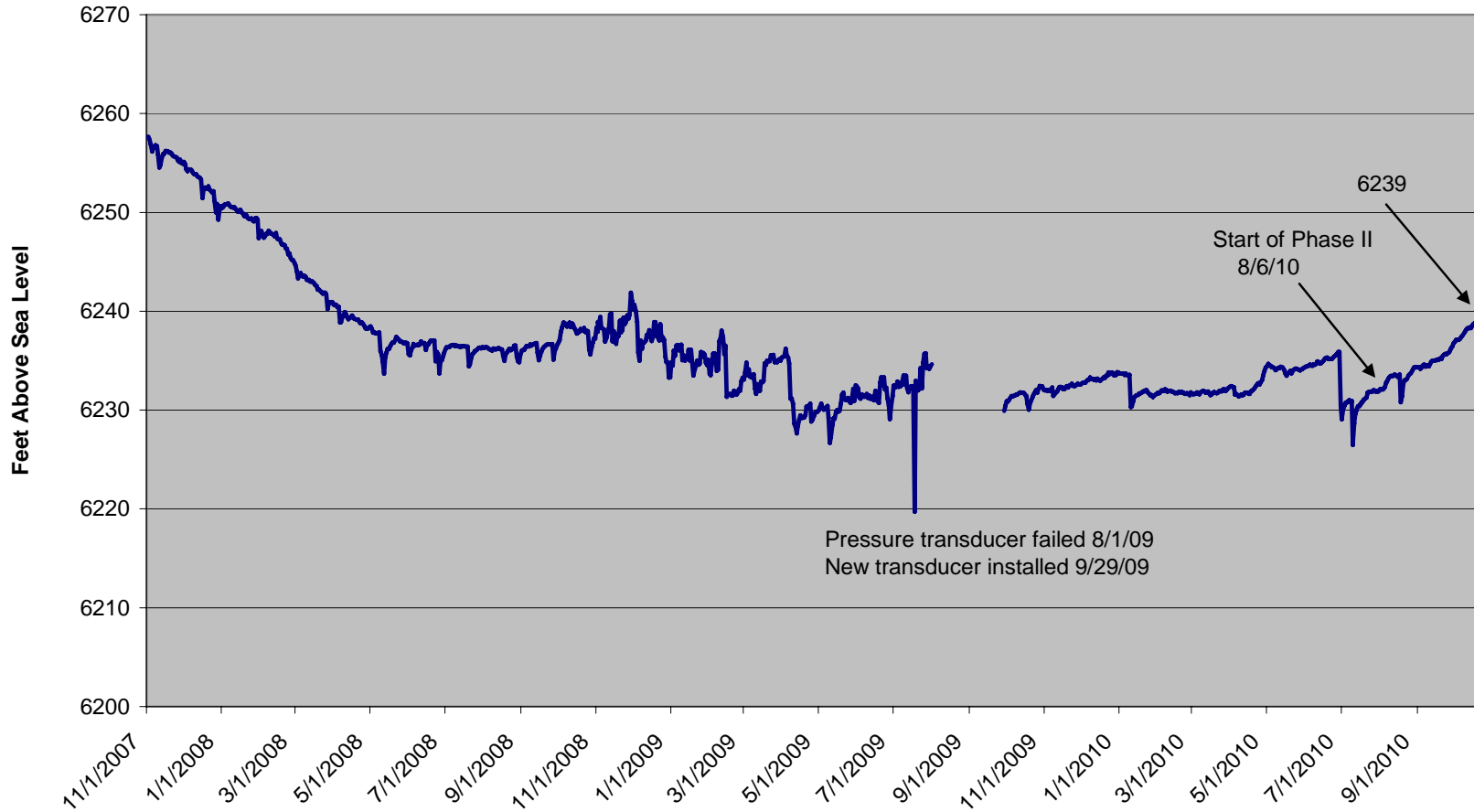
Ground Elevation: 6690 ft.



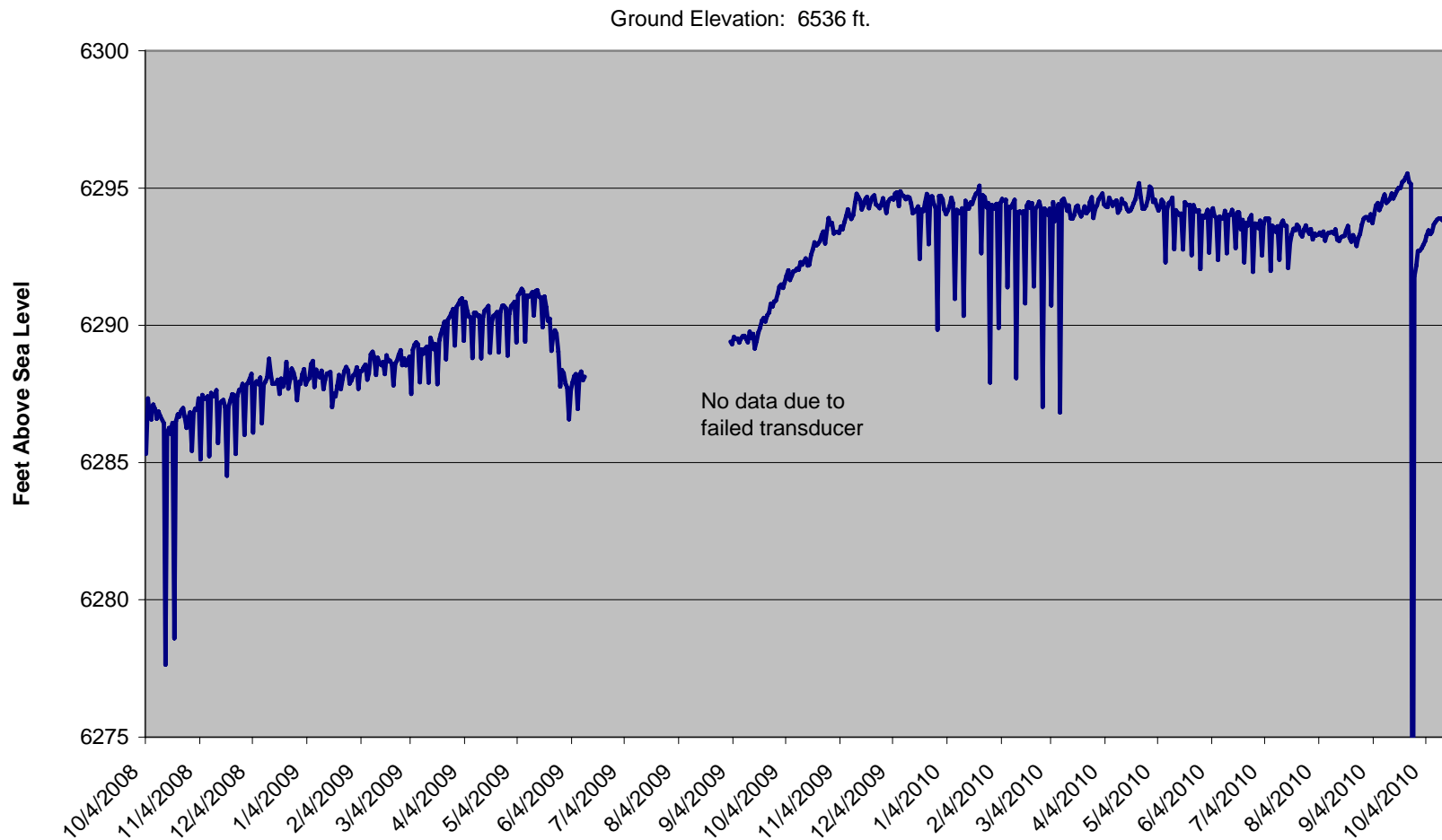
**Bruington WW, Permit # 210526, City Ranches Lot 15**  
**Static Water Level**  
**from 9/30/08 to 10/19/10**



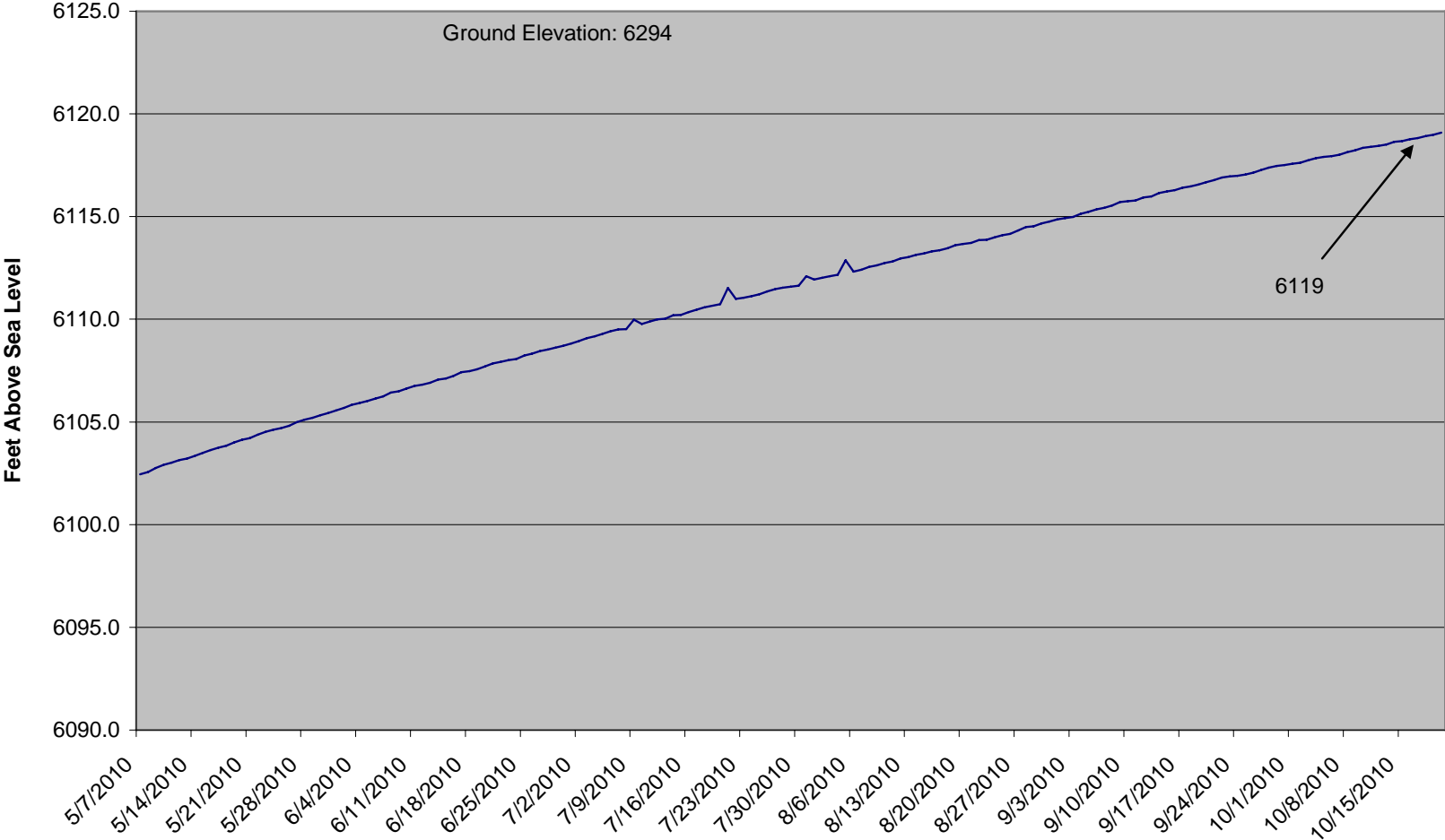
**Coleman WW, Water Level from 11/1/07 to 10/20/10**  
**Permit # 267694 Lot 70 RRR**  
**G.L. elev. 6848'**



**Garza WW, Water Level from 10/3/08 to 10/20/10**  
**Permit # 206886, Lot 60 Silver Spurs Ranch**

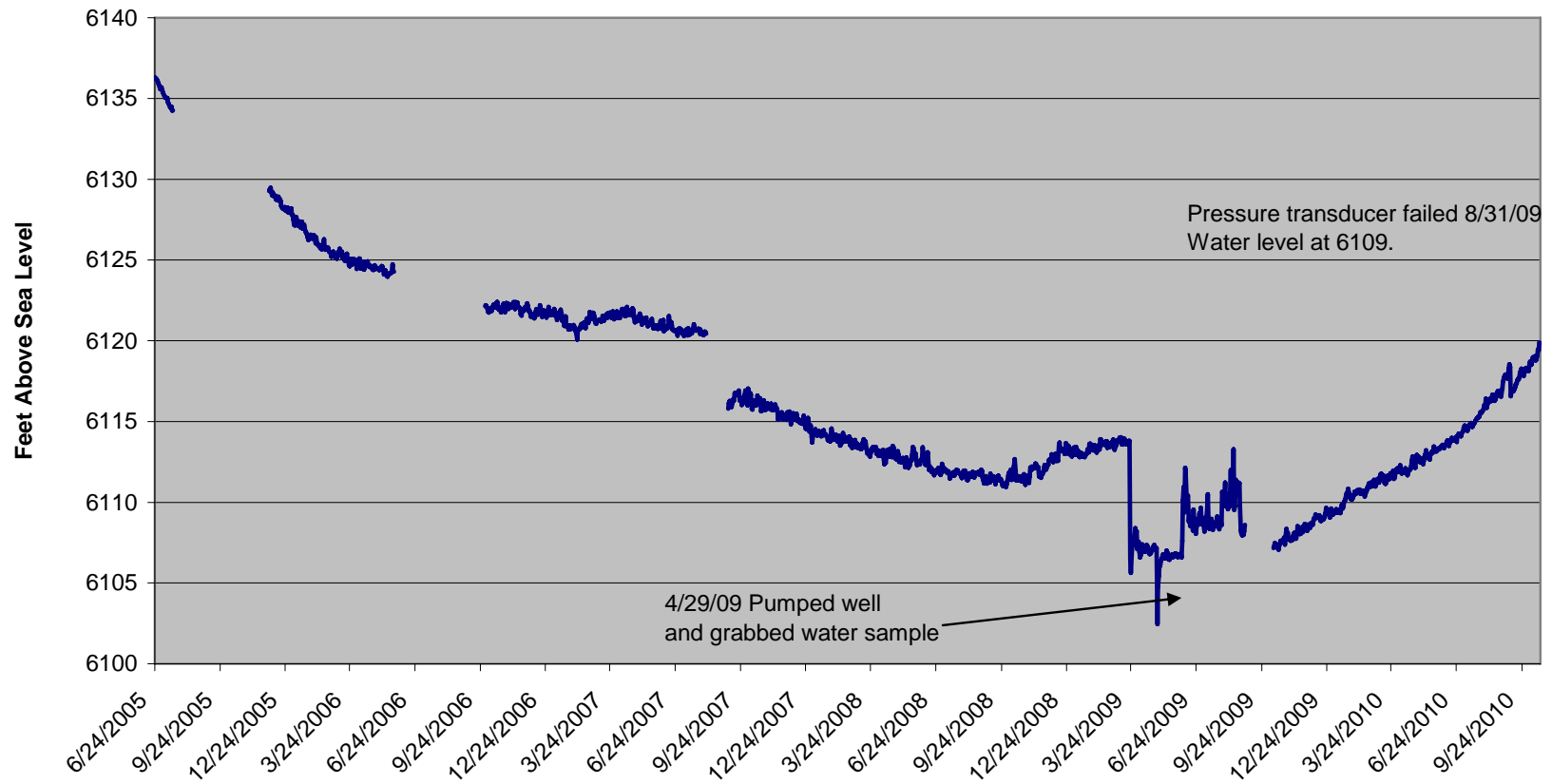


**T. Gonzales WW, Permit #285651, City Ranches Lot 79A  
Static Water Level from 5/7/10 to 10/20/10**



**Meyer WW Permit # 248862**  
**Static Water Level**  
**from 6/24/05 to 10/19/10**

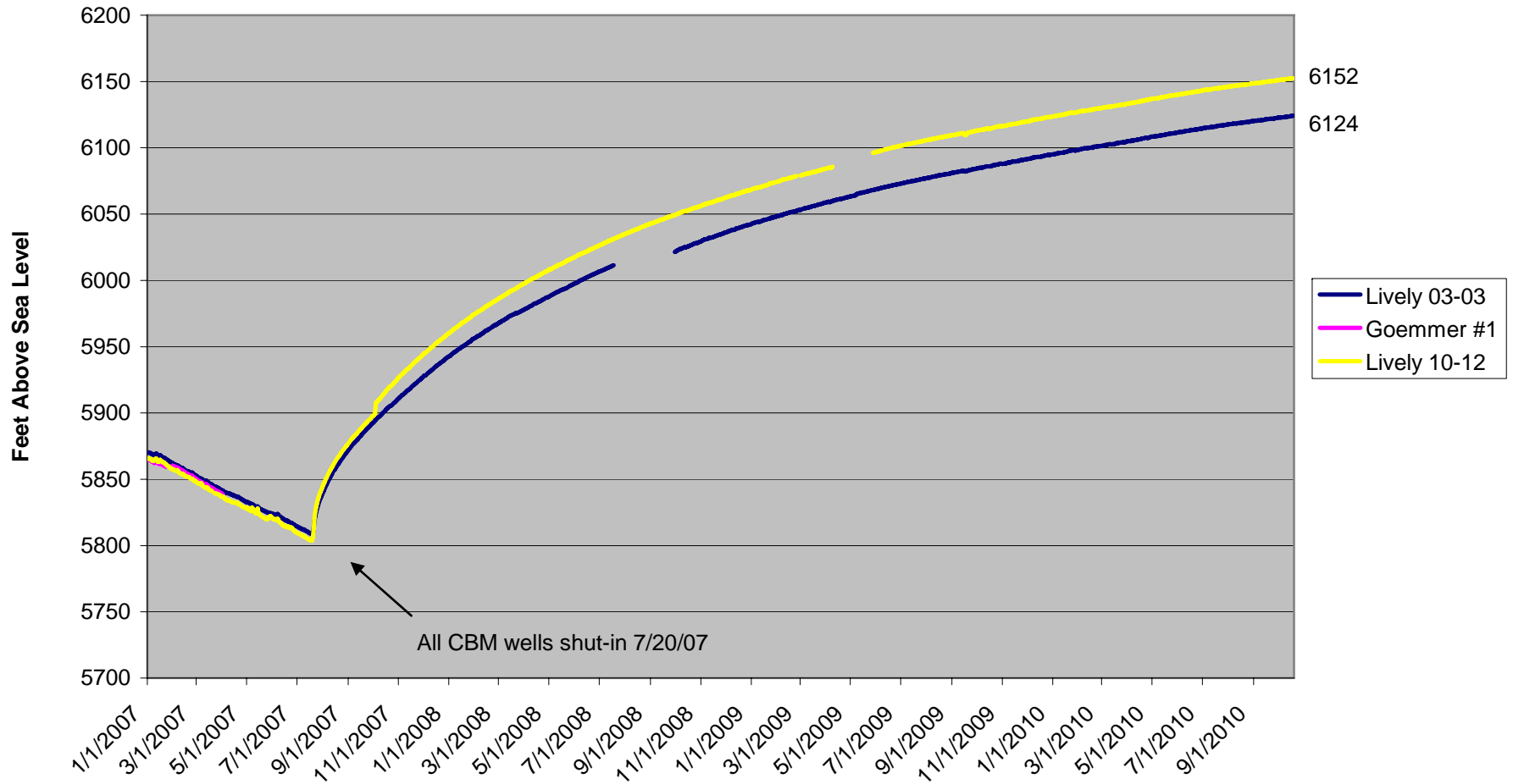
Ground Elevation: 6575 ft.



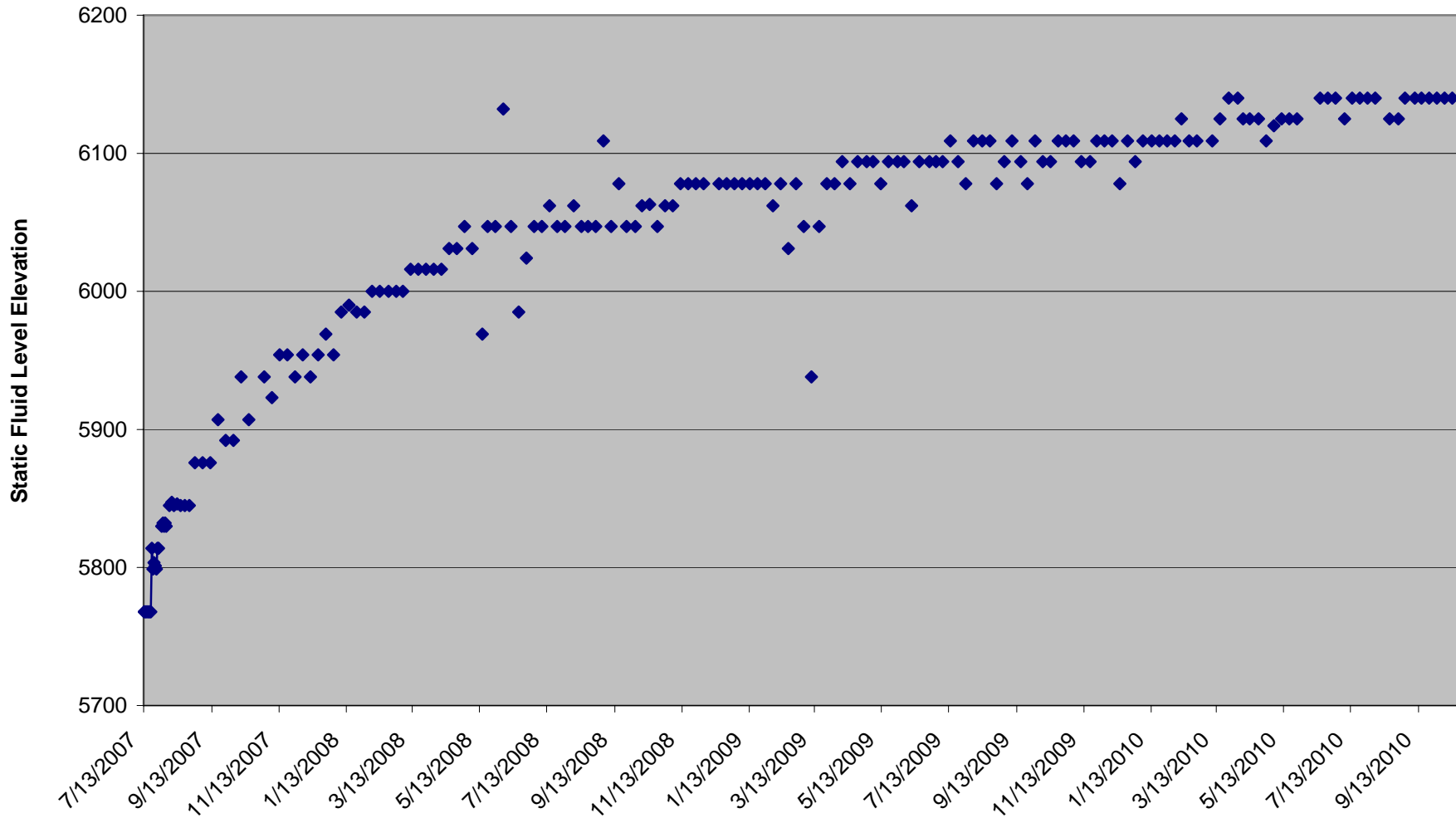


**Attachment 3**  
**Fluid Levels in Petroglyph Production Wells**

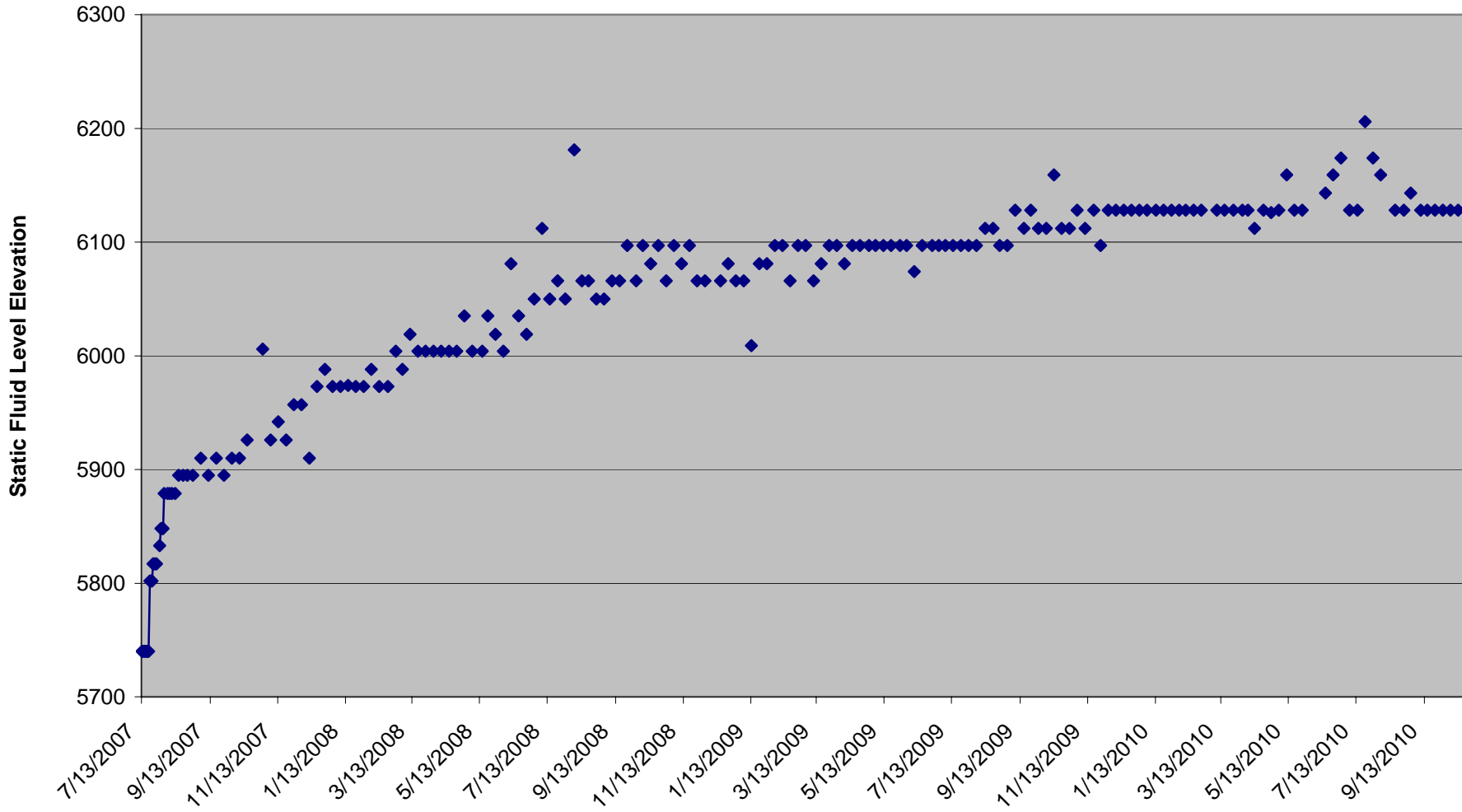
### Vermejo/Trinidad Monitor Wells Static Water Level from 1/1/07 to 10/19/10



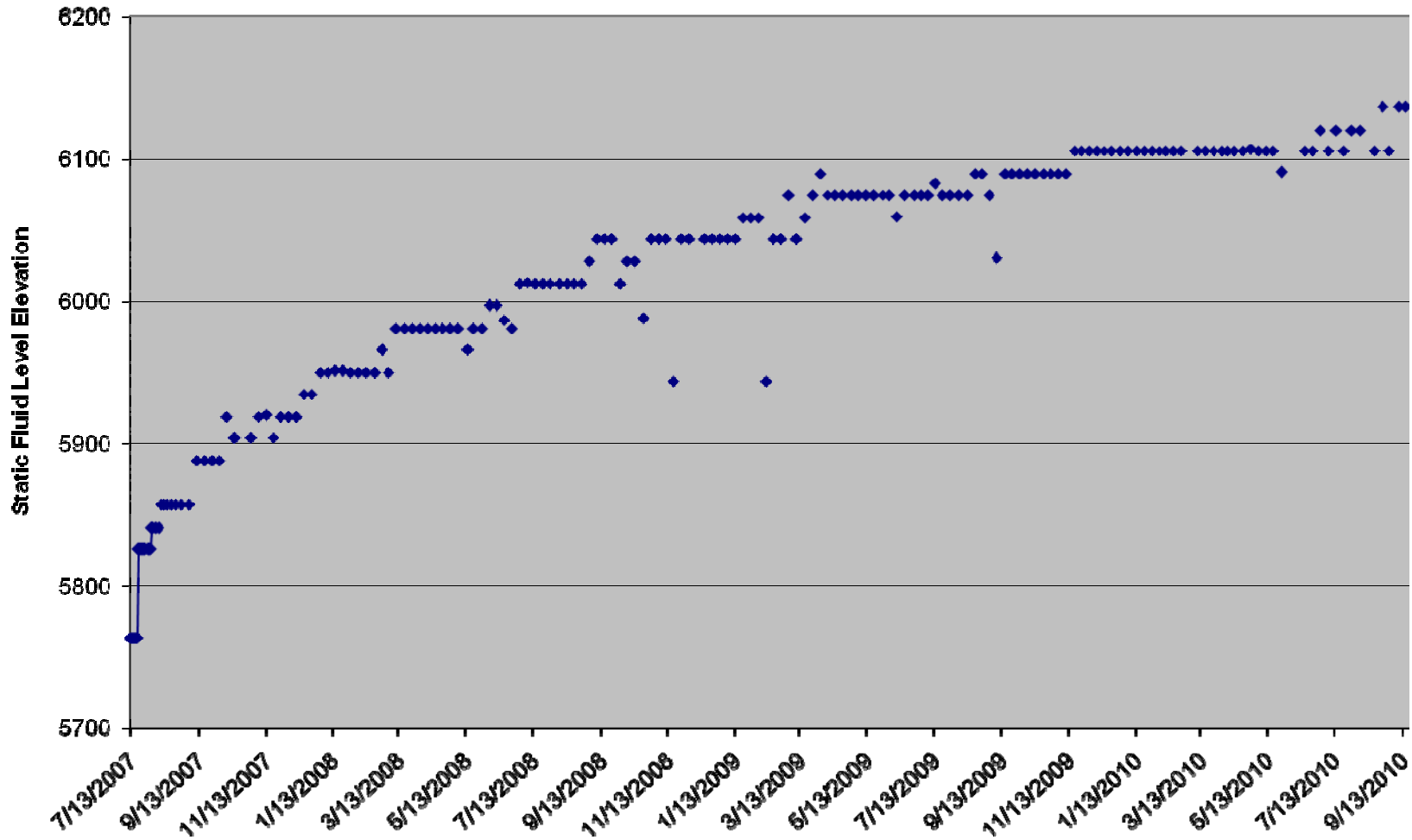
**Lively 02-02**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



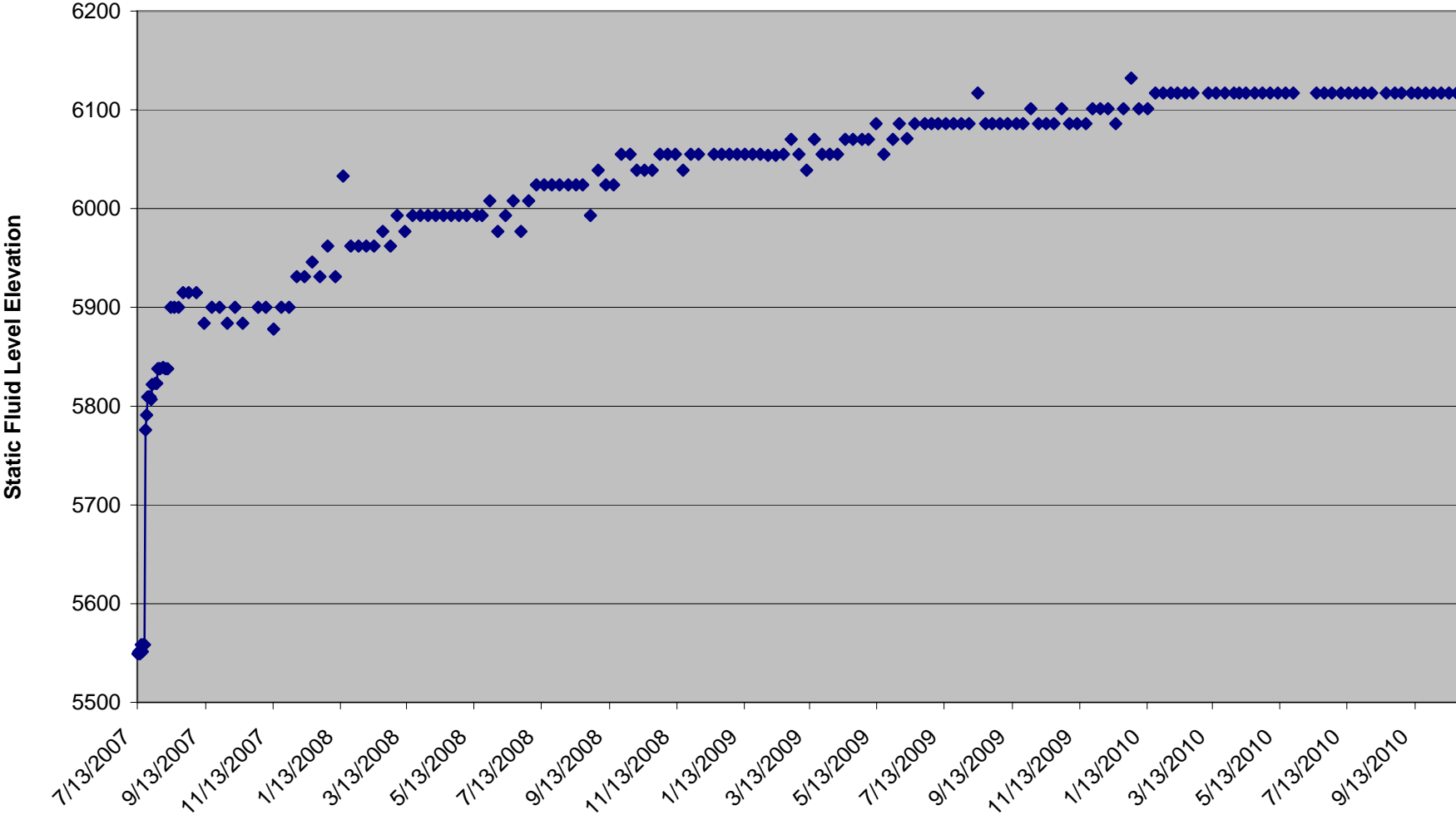
**Lively 02-12**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



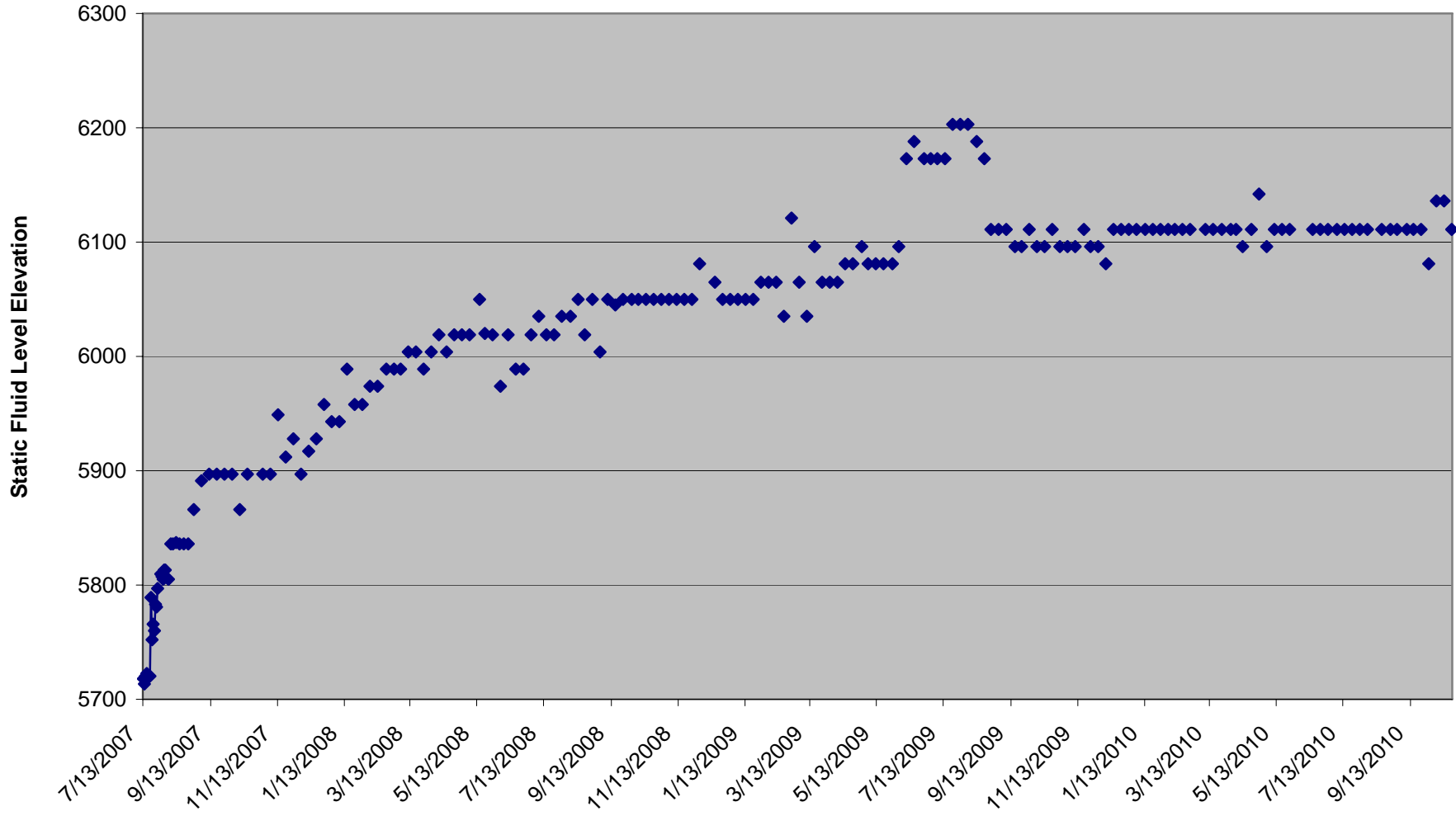
**Lively 03-01**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



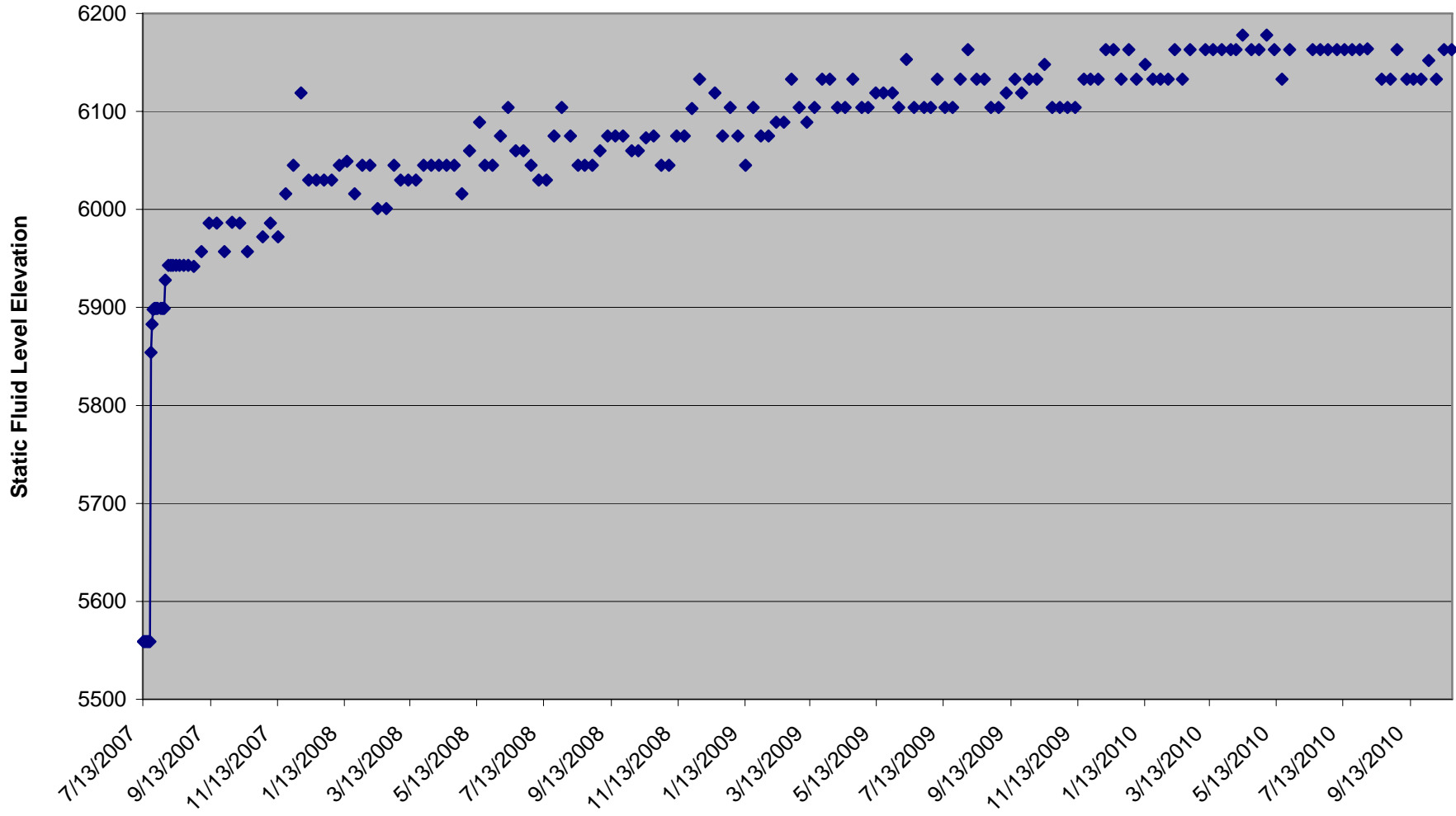
**Lively 03-10**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



**Lively 03-12**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**

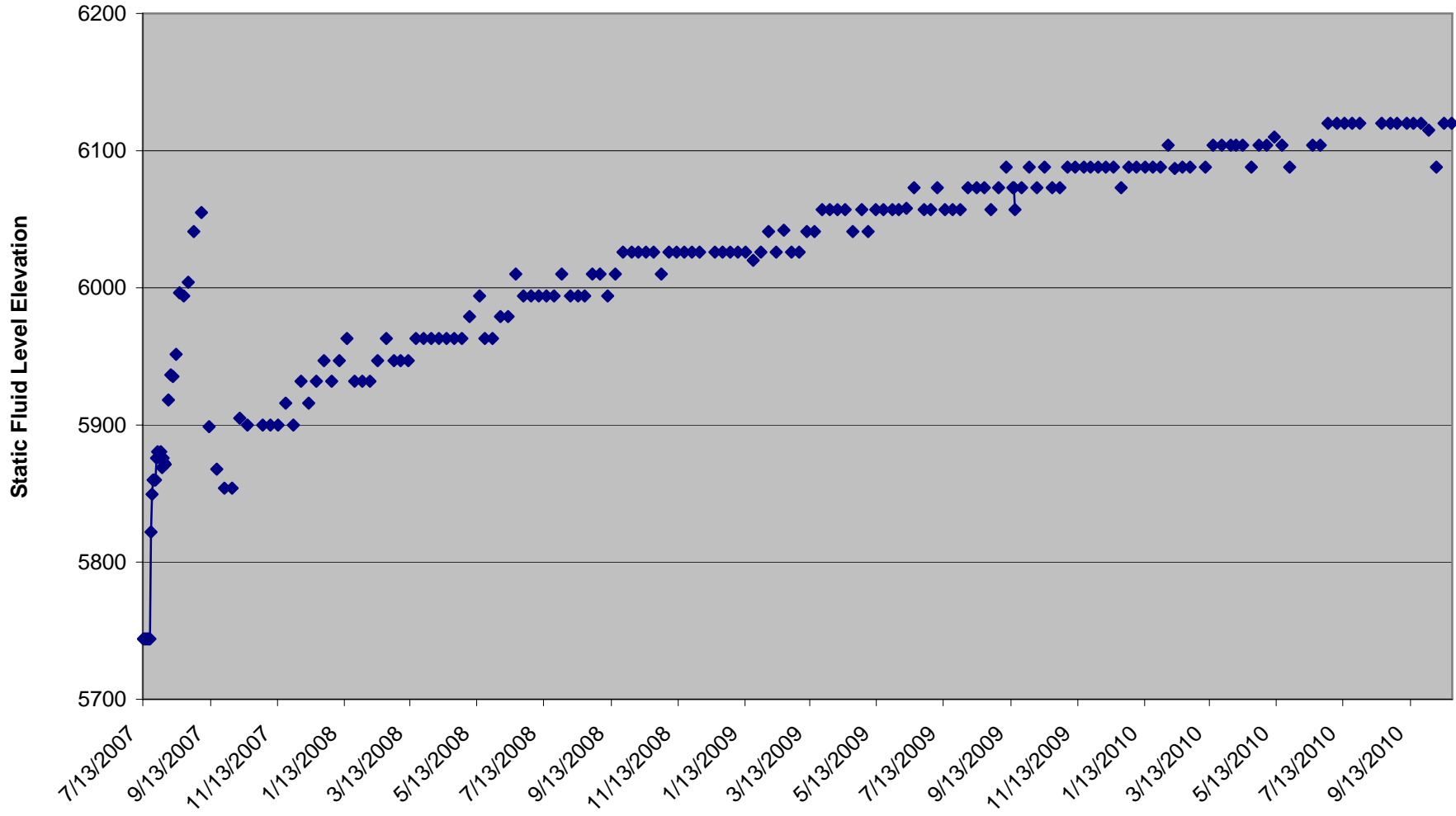


**Lively 10-04**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**

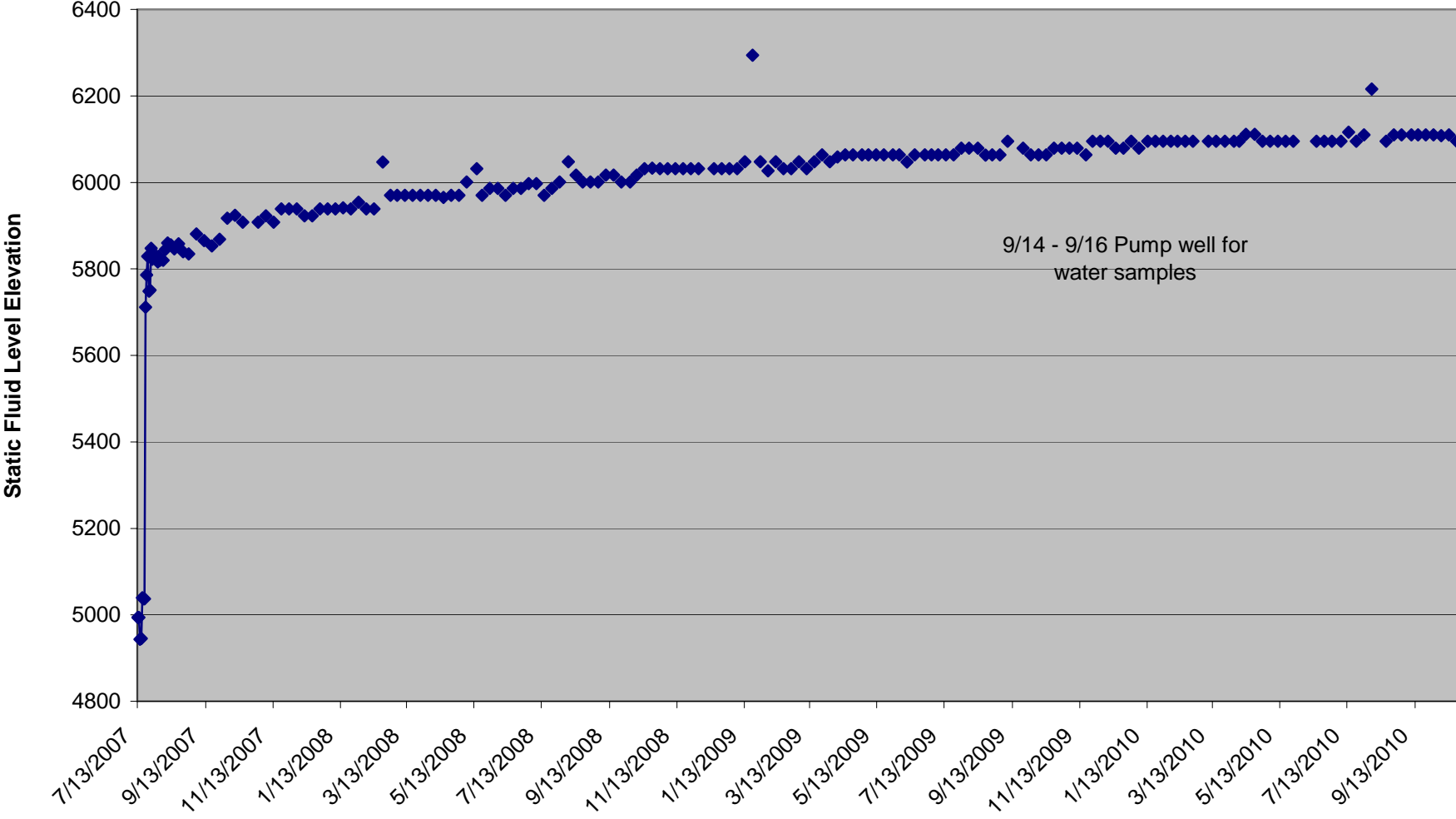




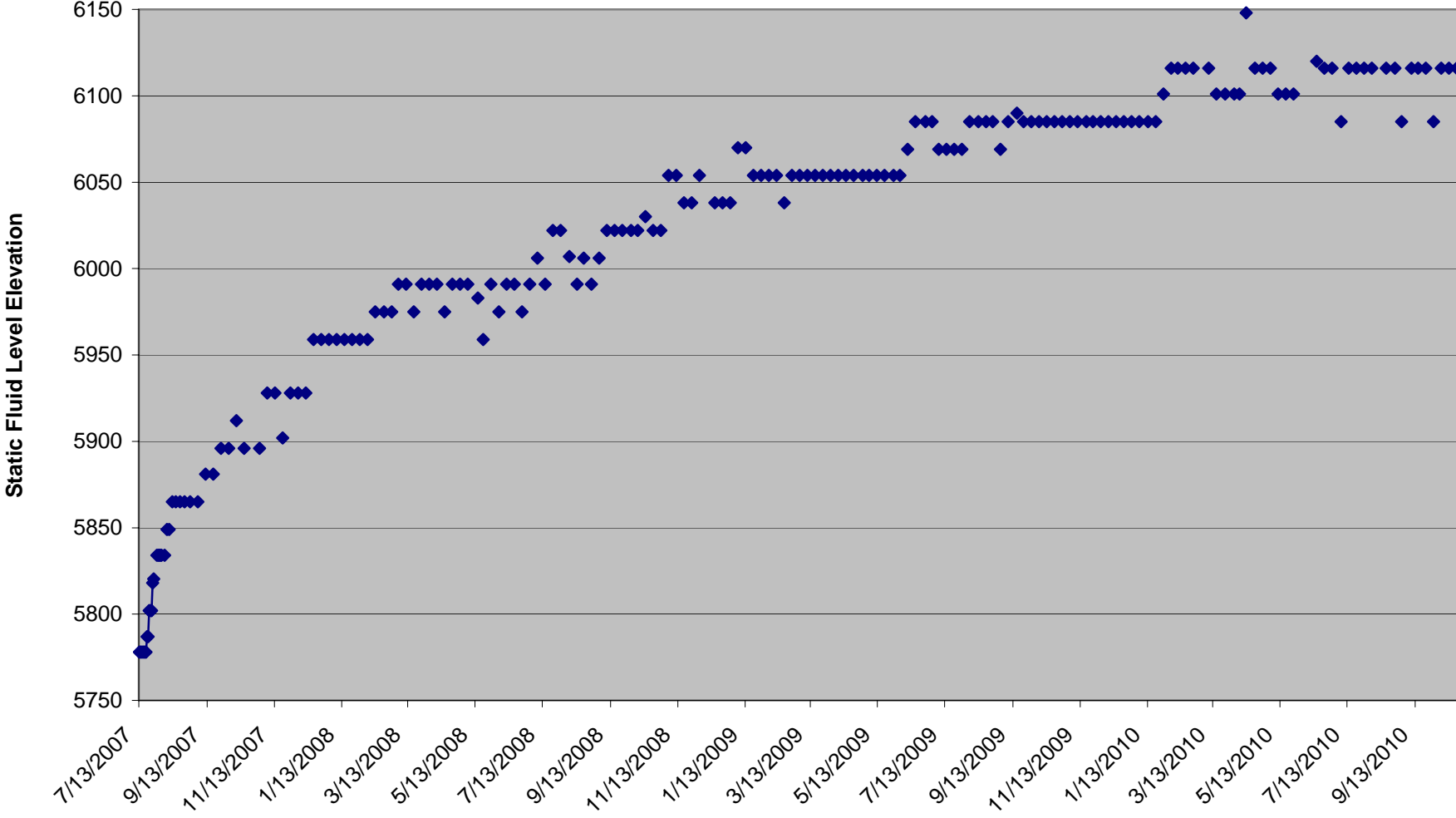
**Rohr 04-10**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



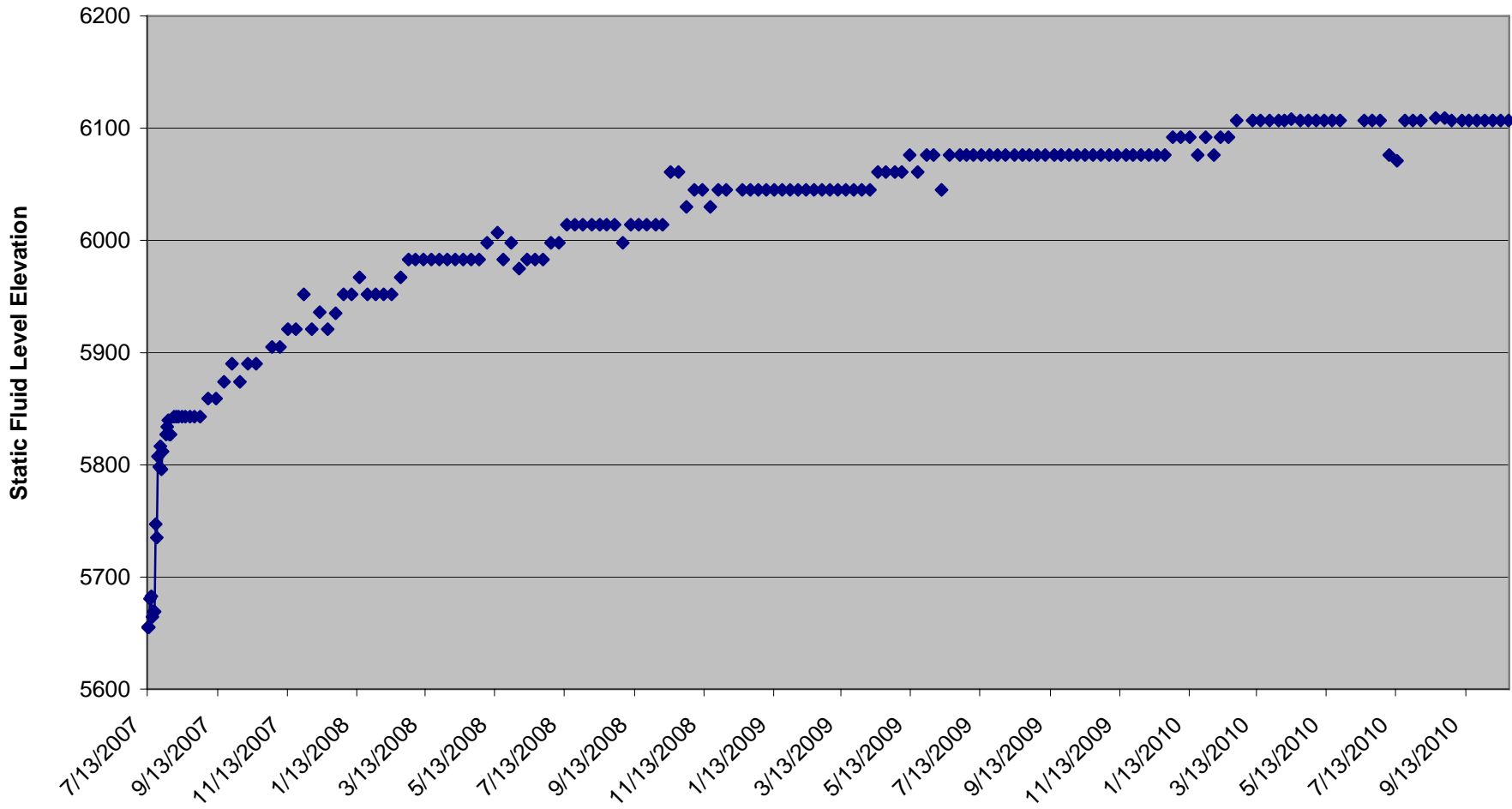
**Rohr 09-10**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



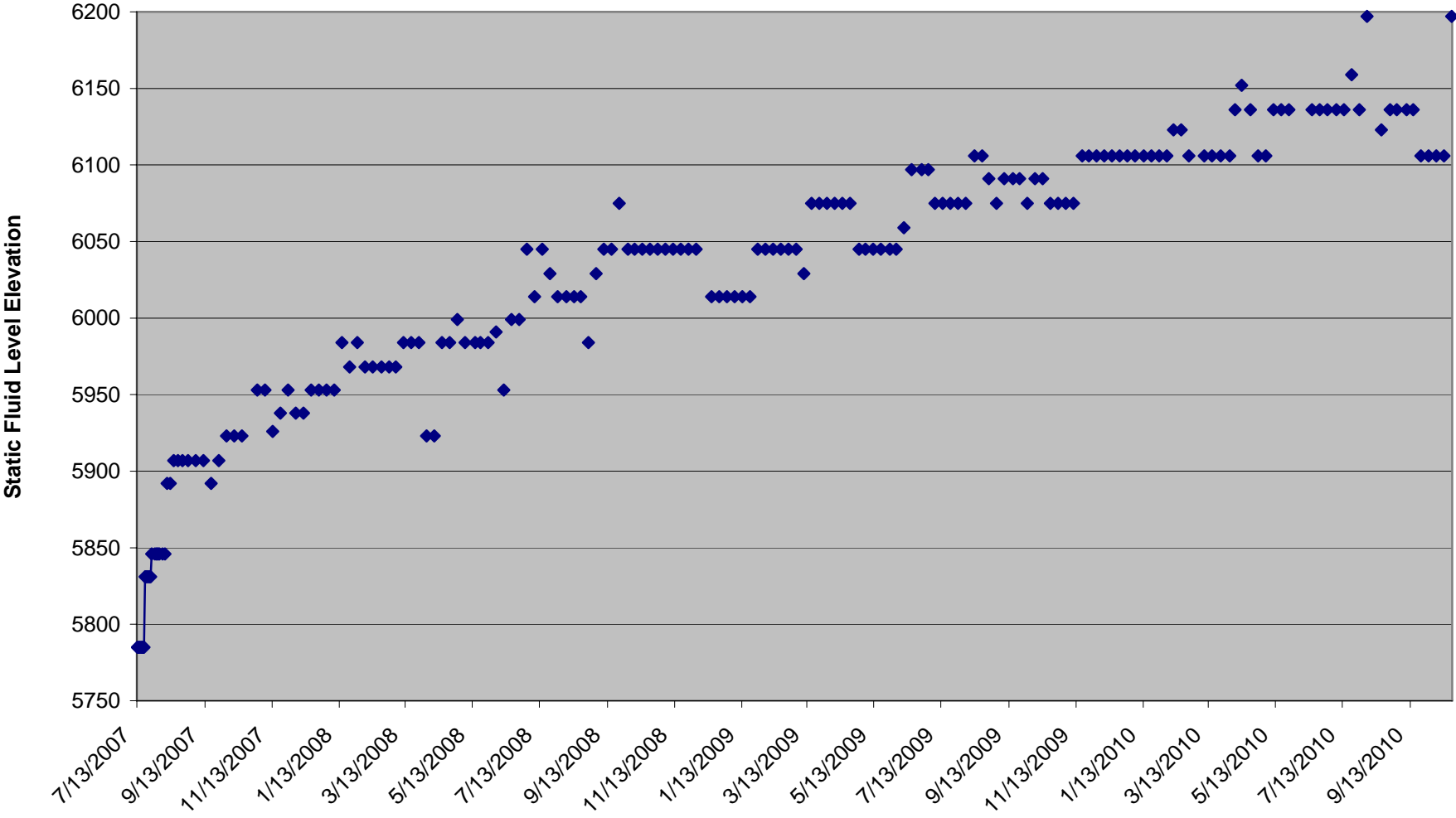
**State 36-02**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



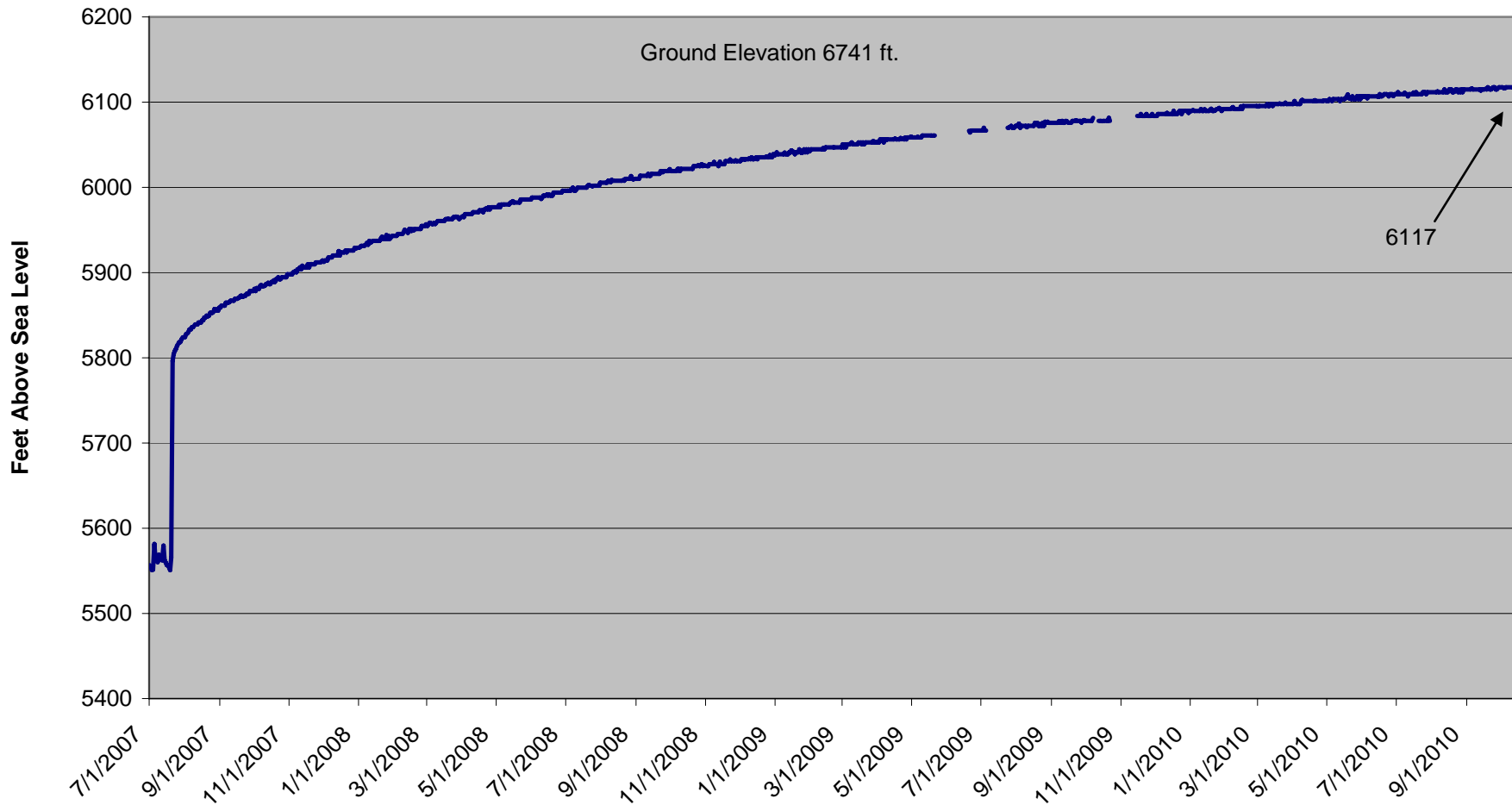
**State 36-05**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



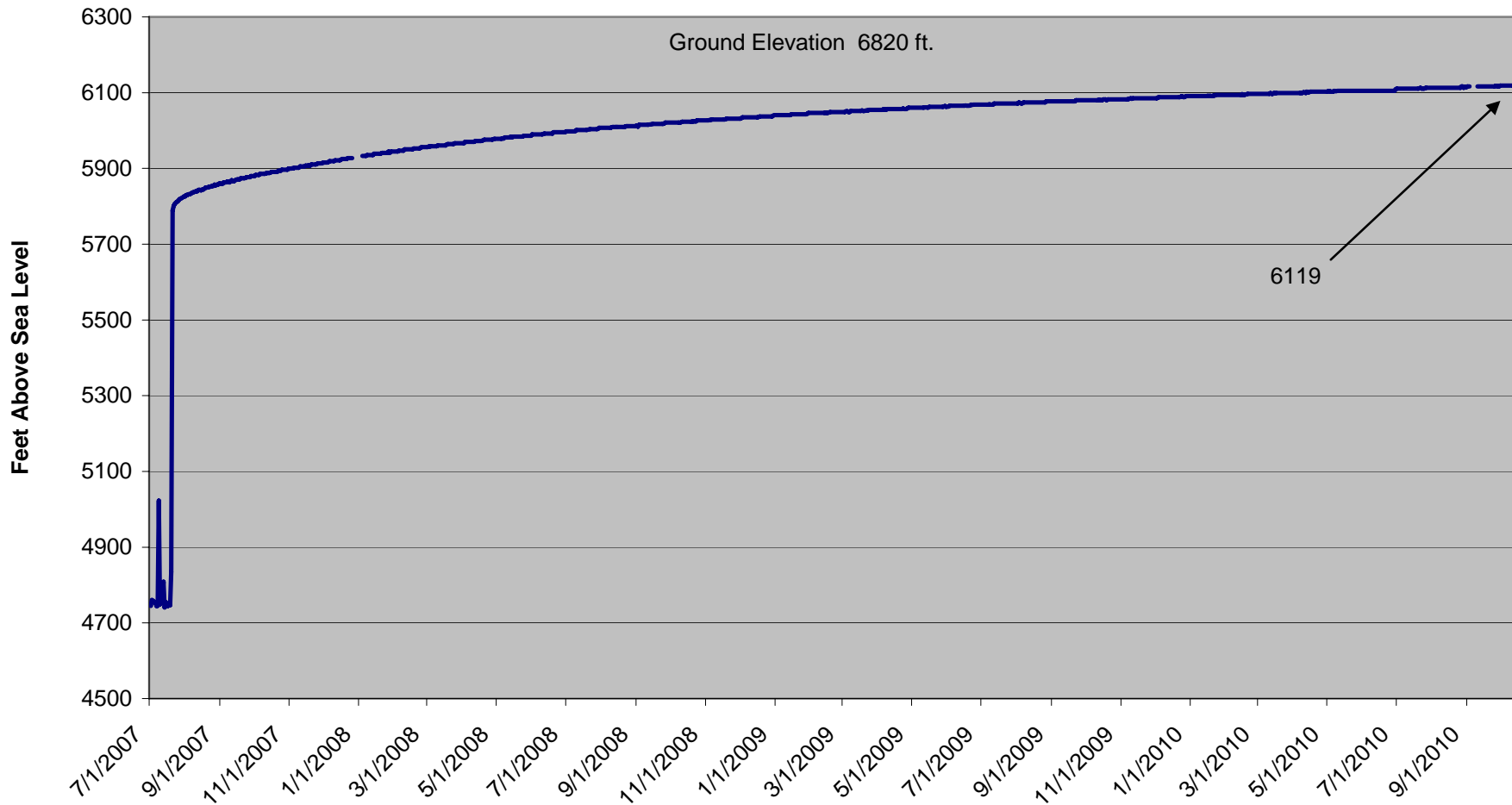
**State 36-11**  
**7/13/07 thru 10/20/10**  
**Wells shut down 7/20/07**



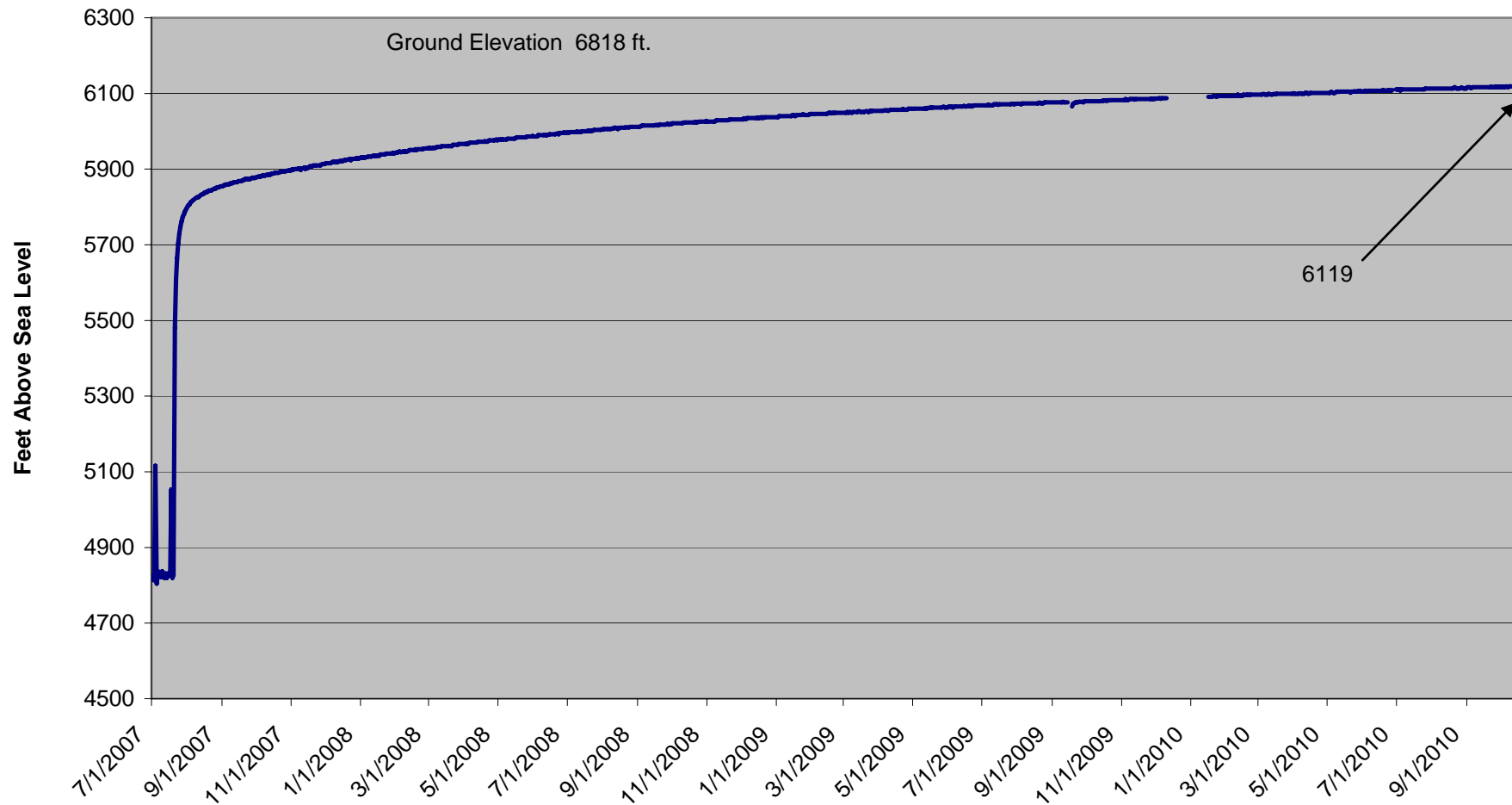
**Rohr 04-14 CBM Well**  
**Static Water Level**  
**from 7/1/07 to 10/14/10**  
**Well shut-in 7/20/07**



**Rohr 08-01 CBM Well**  
**Static Water Level**  
**from 7/1/07 to 10/14/10**  
**Well shut-in 7/20/07**

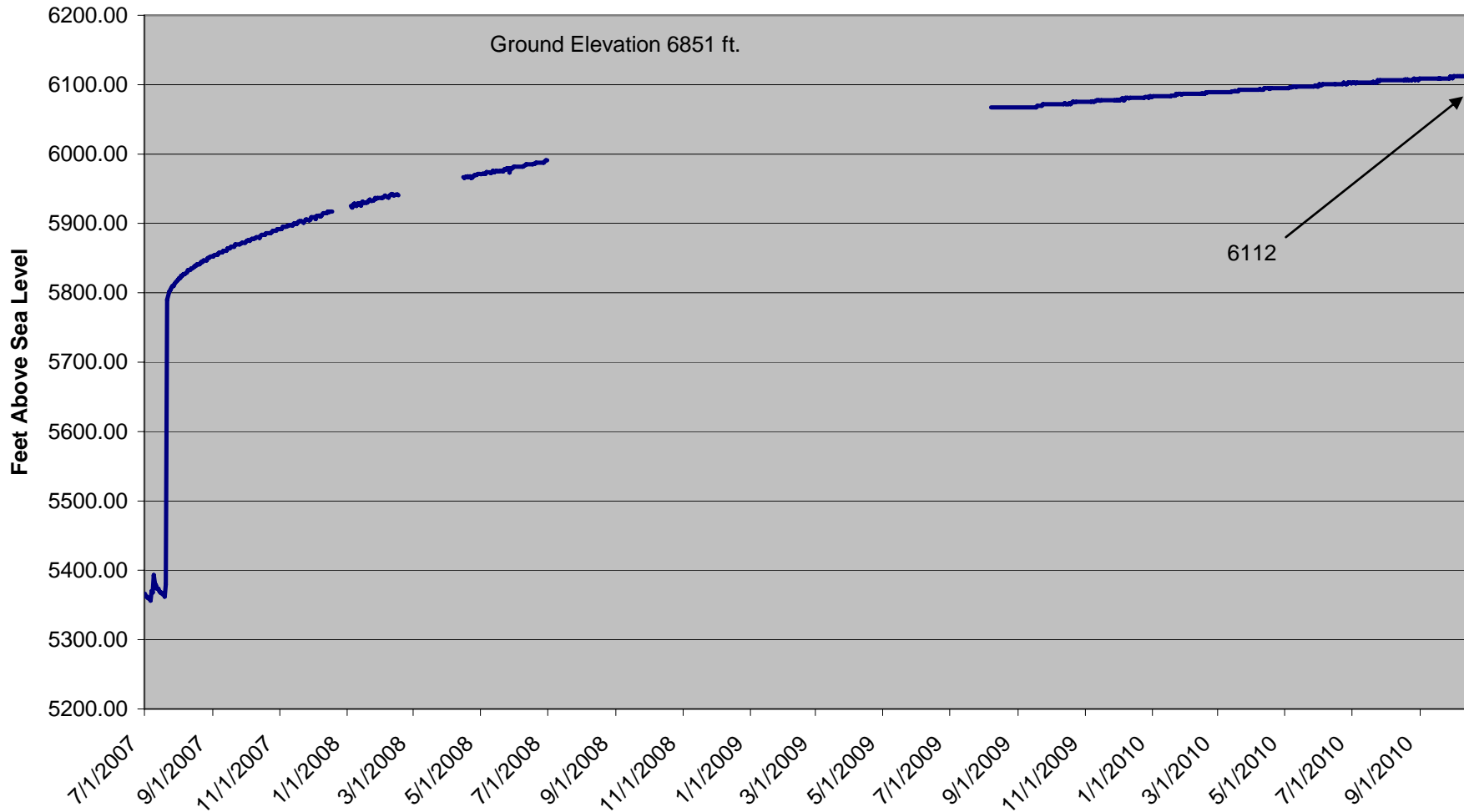


**Rohr 09-04 CBM Well**  
**Static Water Level**  
**from 7/1/07 to 10/14/10**  
**Well shut-in 7/20/07**





**Rohr 09-05 CBM Well Static Water Level  
from 7/1/07 to 10/14/10  
Well shut-in 7/20/07**



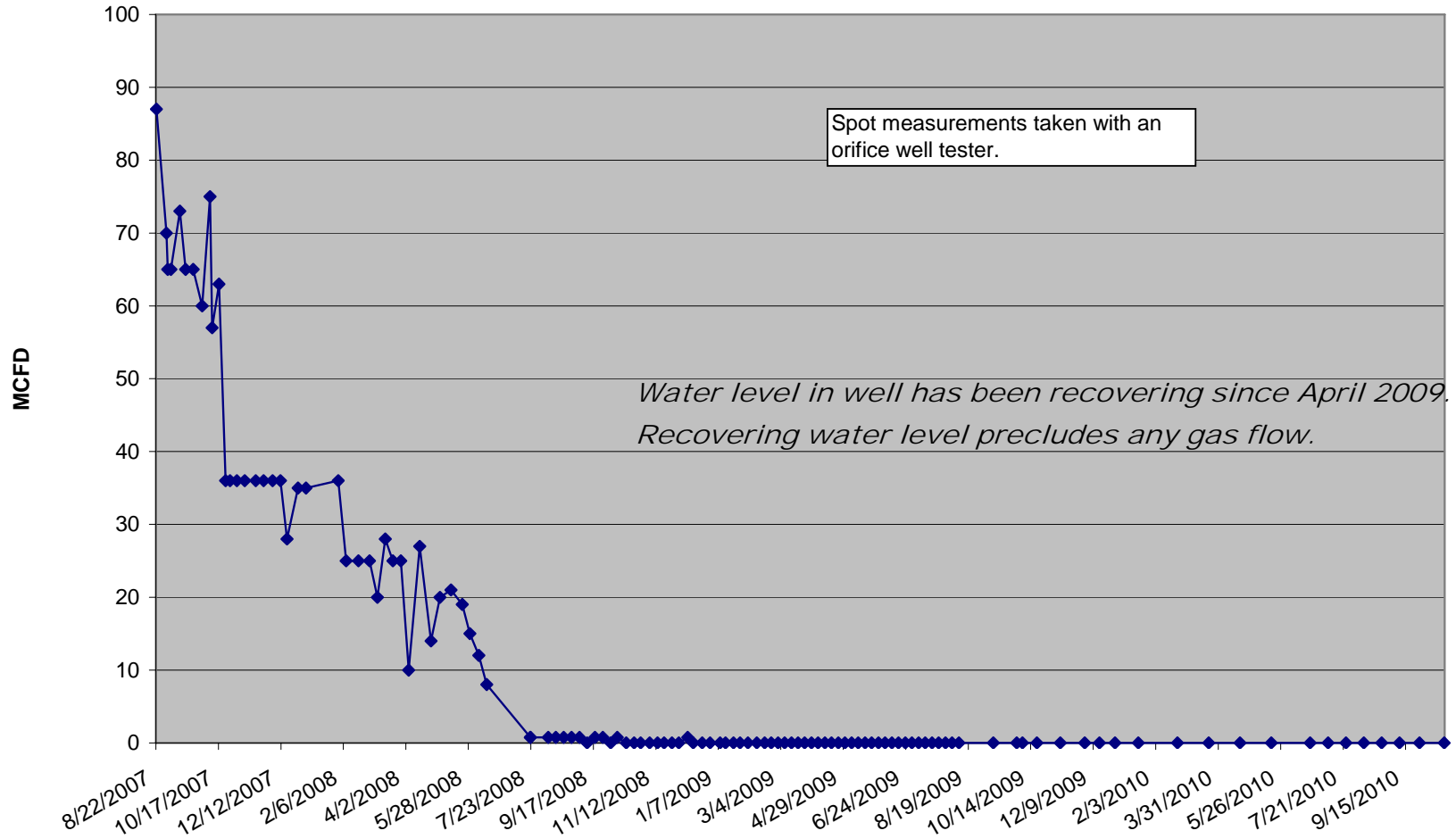
**Attachment 4**  
**Comparison of Fluid Levels in Production Wells and Private Wells**



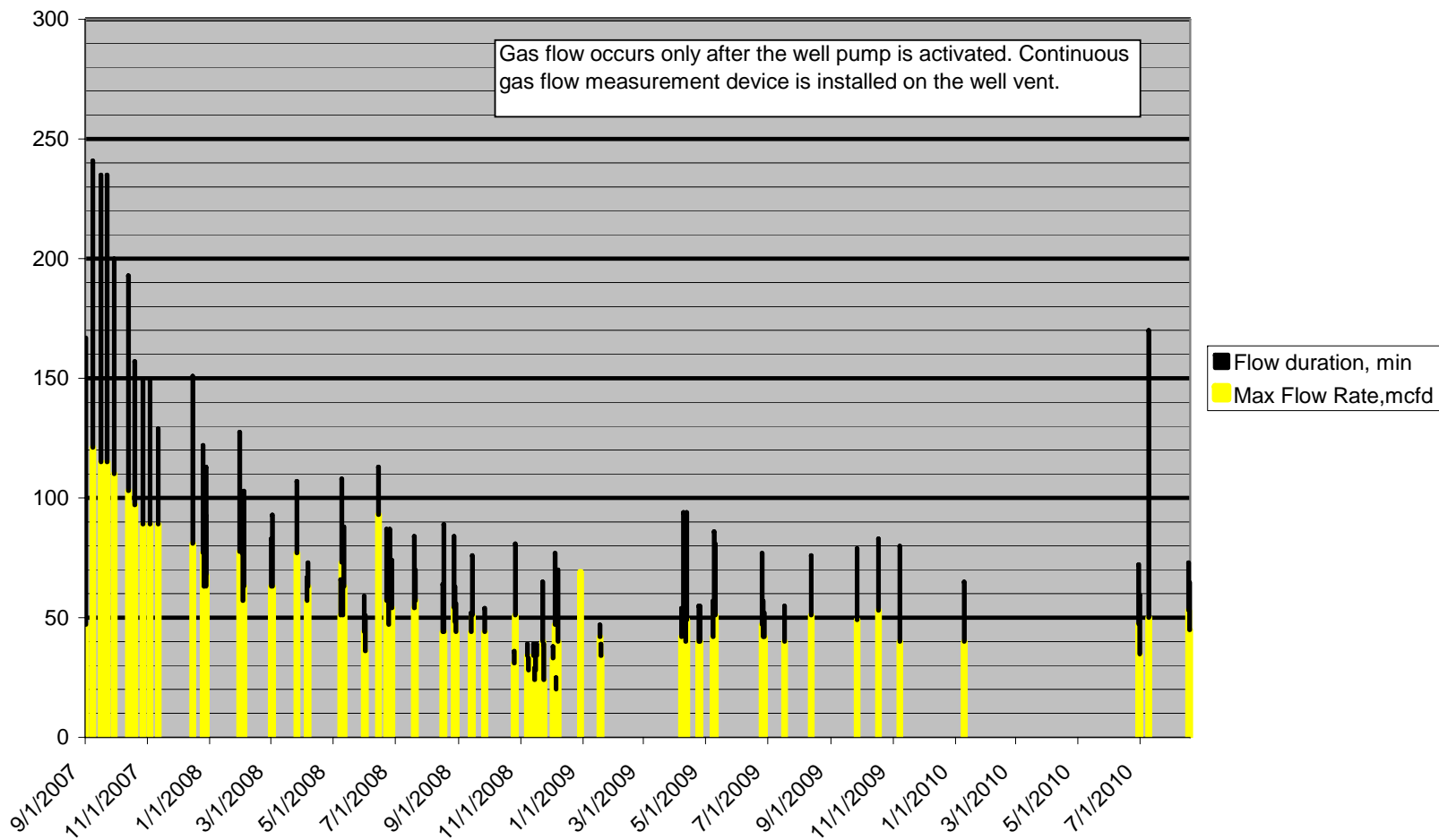
Summary of Production Well Water Levels and Private Well Water Levels						
Well Name	Permit or API #	Ground Elevation ( ft above mean sea level)	Depth of Pressure Sensor (ft)	Formation	General Location	Well Status
Barrett	257994	6707	750	Poison Canyon	In mitigation ring	non-active domestic well
Bergman	244403	6690	400	Poison Canyon	In mitigation ring	non-active domestic well
Coleman	267694	6848	823	Poison Canyon	In mitigation ring	active domestic well
Meyers	248862	6575	600	Raton	Outside 1 mile radius of mitigation ring	non-active domestic well
POCI 55	275819	6690	595	Poison Canyon	In mitigation ring	monitor well
Bruington	210526	6335	320	Vermejo	City Ranch near outcrop	non-active domestic well
Evenden	221465	6712	514	Vermejo-Trinidad	Silver Spurs Ranch near outcrop	active domestic well
Garza	206886	6536	288	Trinidad	Silver Spurs Ranch near outcrop	active domestic well
Lively 03-03	222539	6647	995	Trinidad	Within 1 mile radius of mitigation ring	Exploratory O&G well converted to water well (non-active)
Lively 10-12	55-06150	6825	1480	Vermejo	In mitigation ring	CBM monitor well
Goemmer #1	16861-F	6826	995	Trinidad	In mitigation ring	Exploratory O&G well converted to water well (non-active)
Rohr 04-14	55-06291	6741	2186	Vermejo-Trinidad	Within 1 mile radius of mitigation ring	Shut-in CBM well
Rohr 08-01	55-06292	6820	2365	Vermejo-Trinidad	Within 1 mile radius of mitigation ring	Shut-in CBM well
Rohr 09-04	55-06290	6818	2273	Vermejo-Trinidad	Within 1 mile radius of mitigation ring	Shut-in CBM well
Rohr 09-05	55-06289	6851	2285	Vermejo-Trinidad	Within 1 mile radius of mitigation ring	Shut-in CBM well
Pearson 19-16	55-06293	6557	1000	Vermejo	Outside 1 mile radius of mitigation ring	CBM monitor well

**Attachment 5**  
**Gas Flow Measurements at Bruington, Coleman, Angely, Bounds, and Smith**

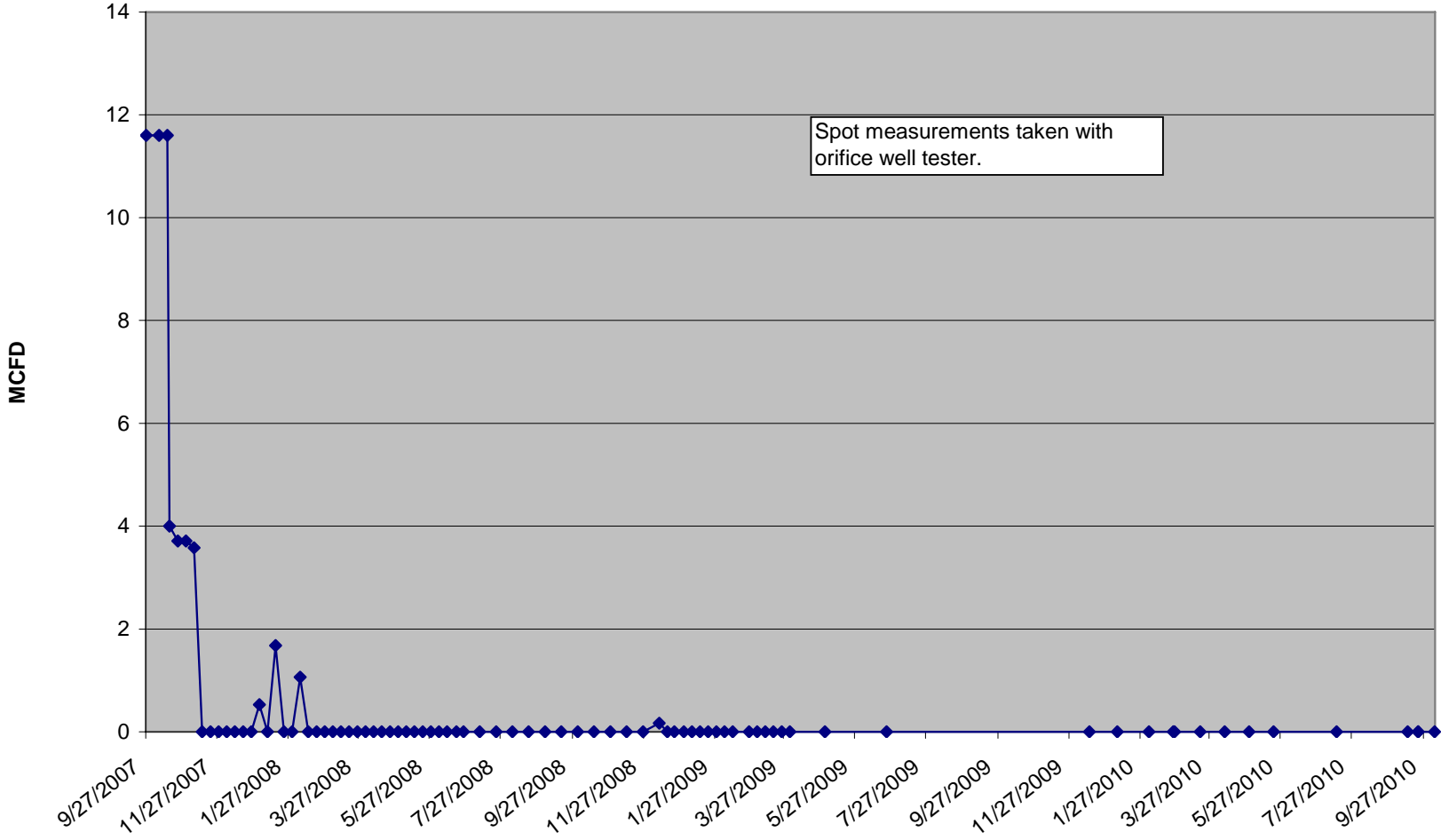
**Bruington WW # 210526 Measured Gas Flow  
from 8/22/07 to 10/19/10**



**Coleman WW #267294 Measured Gas Flow  
from 9/1/07 to 8/18/10**

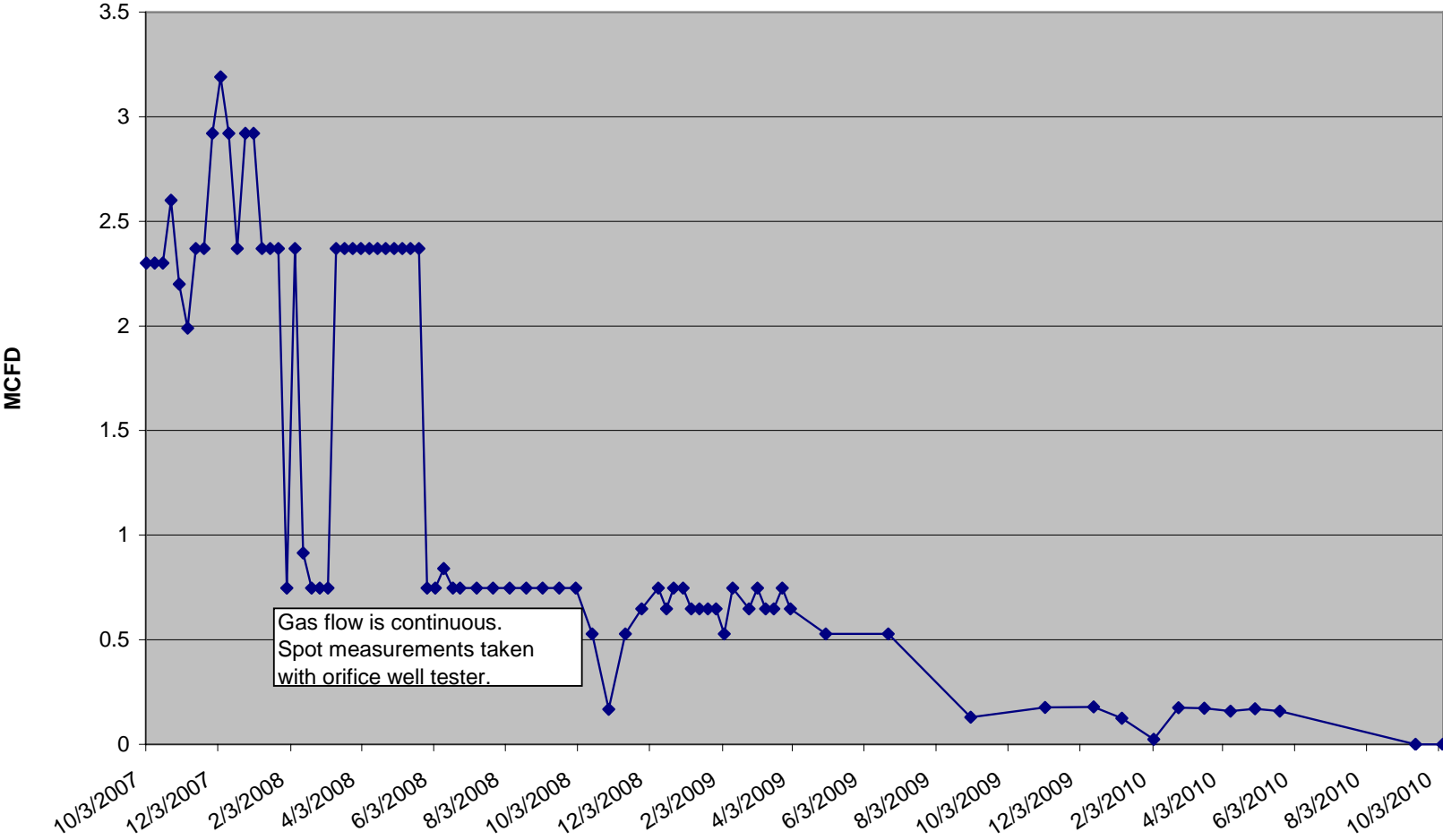


**Angely WW # 238689 Measured Gas Flow  
from 9/27/07 to 10/06/10**

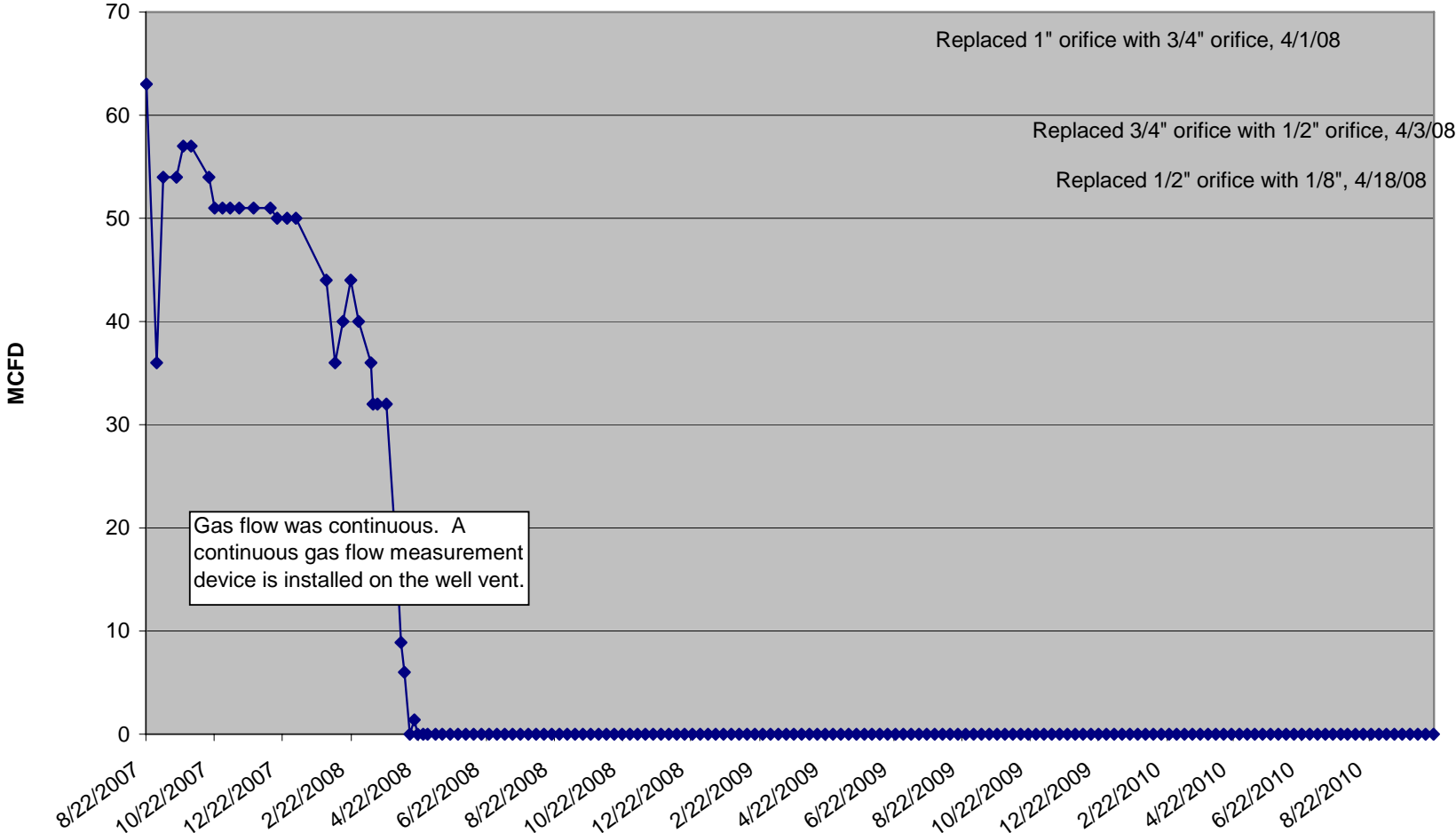




**Bounds WW #181278 Measured Gas Flow  
from 10/3/07 to 10/6/10**



**Smith WW # 239657 Measured Gas Flow  
from 8/22/07 to 10/18/10**



**Attachment 6**  
**Gas Concentrations in**  
**Private Water Wells near the Mitigation Project**

