3R – 308

2010 AGWMR

04 / 29 / 2011

Williams
Environmental Services
188 CR 4900
Bloomfield, NM 87413

April 29, 2011

Mr. Glen Von Gonten
Hydrologist
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: 2010 GROUND WATER SUMMARY REPORT

Dear Mr. Von Gonten:

Enclosed for your review is the Williams 2010 Ground Water Summary Report. The report presents monitoring data for eight sites having petroleum hydrocarbon impacted ground water resulting from past use of unlined surface impoundments. Information for each site includes a brief narrative, analytical summary, hydrograph, and ground water contour maps.

As has been mentioned previously, four of the eight sites have known or suspected up-gradient contaminant sources which continue to influence conditions affecting the rate of natural attenuation. These conditions likely indicate producer or third party responsibility and affect the ultimate closure schedule.

Two sites (Florence 47X and Davis #1) have regular accumulations of LNAPL in one monitoring well at each location. Since 2002, passive collection devices have been deployed in all wells containing measurable accumulations of LNAPL. Periodic emptying of the collection devices along with active bailing of LNAPL continues at the aforementioned sites and at any other site if and when LNAPL is observed.

As noted in the site summaries, laboratory reports have not been included in the annual summary report. Lab results reports are retained in project files until such time as a site closure report is developed, but are available anytime upon request.

Thank you for your time to review this submittal. If you have any questions regarding the content of the report, or about specific conditions at any site, you may call me at (801) 232-8985 or Aaron Dailey at (505) 634-4708.

Respectfully,

Mark B. Harvey
Project Manager

Enclosure - CD

c: Bill Liess, BLM Farmington District Office
Dan Reutlinger, Williams-TUL

Annual Groundwater Summary Report 2010

San Juan Basin, New Mexico
Unlined Surface Impoundments

3R-308

CHAMBERLAIN #1

Site Summary Report

Site Name: Chamberlain 1 **Reporting Period: 2010**

Location: Unit F, Sec 14, Twn 32N, Rng 12W
Canyon: Jaquez Flat
Operator: Burlington

Status Narrative

Forty three quarters of water quality data have been collected from the four monitoring wells located at this site. Water levels throughout the monitoring period were again insufficient to collect samples from MW-2. This well has historically been the only monitoring well (located in the source area) found to have contaminant concentrations in excess of NMWQCC standards. The last sample collected and analyzed revealed only Benzene in excess of WQCC standards. Monitoring well MW-1 was also not sampled as it continues to be found dry at the time of monitoring. Laboratory results are provided in the attached table summarizing sample results for 2010. Copies of individual lab reports are retained in project files to be submitted upon site closure.

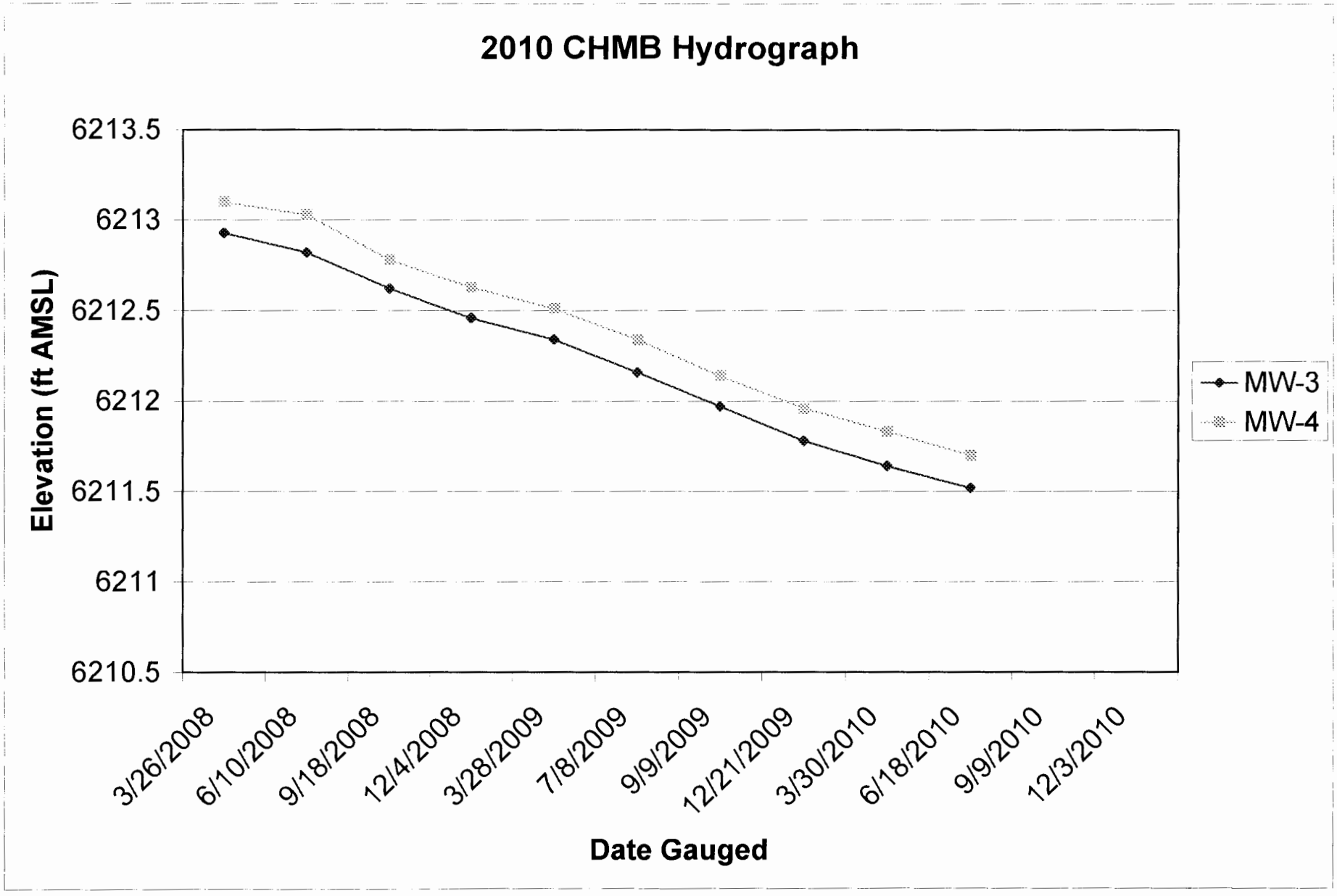
Ground water flows to the west-southwest with an average hydraulic gradient of 0.012. No significant seasonal variations in flow direction or gradient have been observed. Figure 2 shows the potentiometric surface for only one quarterly sampling event as water levels could not be measured in more than two wells. The monitoring period hydrograph does not indicate significant seasonal fluctuations in water table elevations. Nevertheless, water table elevations continue to decrease as they have over the past several years.

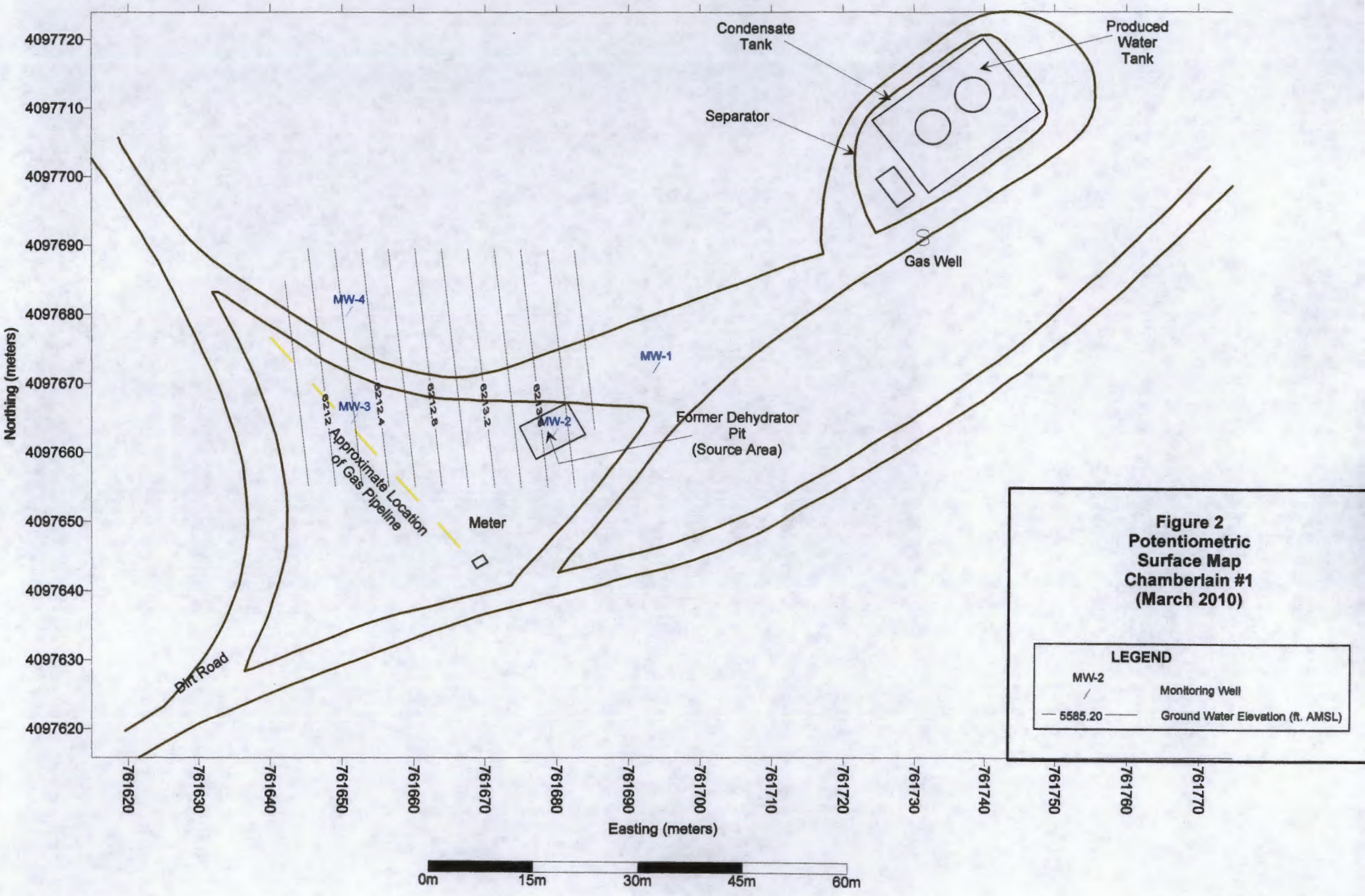
Analytical Data Summary

Site Name:
Chamberlain 1

Reporting Period:
1/8/2008 To 12/31/2010

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-3						
	3/26/2008	144426MAR08	<1.0	<1.0	<1.0	<3.0
	6/10/2008	184810JUN08	<1.0	<1.0	<1.0	<3.0
	9/18/2008	180619SEP08	<1.0	<1.0	<1.0	<3.0
	12/4/2008	161604DEC08	<1.0	<1.0	<1.0	<3.0
	3/28/2009	164028MAR09	<1.0	<1.0	<1.0	<3.0
	7/8/2009	130708JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	180209SEP09	<1.0	<1.0	<1.0	<3.0
	12/21/2009	145921DEC09	<1.0	<1.0	<1.0	<3.0
	3/30/2010	112630MAR10	<1.0	<1.0	<1.0	<3.0
	6/18/2010	180918JUN10	<1.0	<1.0	<1.0	<3.0
MW-4						
	3/26/2008	145426MAR08	<1.0	<1.0	<1.0	<3.0
	6/10/2008	185610JUN08	<1.0	<1.0	<1.0	<3.0
	9/18/2008	181519SEP08	<1.0	<1.0	<1.0	<3.0
	12/4/2008	162504DEC08	<1.0	<1.0	<1.0	<3.0
	3/28/2009	164828MAR09	<1.0	<1.0	<1.0	<3.0
	7/8/2009	125908JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	175309SEP09	<1.0	<1.0	<1.0	<3.0
	12/21/2009	150821DEC09	<1.0	<1.0	<1.0	<3.0
	3/30/2010	113430MAR10	<1.0	<1.0	<1.0	<3.0
	6/18/2010	182118JUN10	<1.0	<1.0	<1.0	<3.0


2010 CHMB Hydrograph
6213.5
6213
6212.5
6212
6211.5
6211
6210.5
Elevation (ft AMSL)
3/26/2008
6/10/2008
9/18/2008
12/4/2008
3/28/2009
7/8/2009
9/9/2009
12/21/2009
3/30/2010
6/18/2010
9/9/2010
12/3/2010
Date Gauged
MW-3
MW-4


Condensate Tank
Produced Water Tank
Separator
Gas Well
MW-4
MW-1
MW-3
MW-2
6212
6212.4
6212.8
6213.2
6213.6
Former Dehydrator Pit (Source Area)
Approximate Location of Gas Pipeline
Meter
Dirt Road
Northing (meters)
4097720
4097710
4097700
4097690
4097680
4097670
4097660
4097650
4097640
4097630
4097620
761620
761630
761640
761650
761660
761670
761680
761690
761700
761710
761720
761730
761740
761750
761760
761770
Easting (meters)
0m
15m
30m
45m
60m
Figure 2
Potentiometric Surface Map
Chamberlain #1
(March 2010)
LEGEND
MW-2
Monitoring Well
5585.20
Ground Water Elevation (ft. AMSL)