

3R – 312

2009 AGWMR

09 / 03 / 2010

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Environmental Services
188 CR 4900
Bloomfield, NM 87413

September 3, 2010

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

RE: 2009 GROUND WATER SUMMARY REPORT

Dear Mr. Von Gonten:

Enclosed for your review is the Williams 2009 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. The sites included in the report are identified in separate sections.

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 have been previously mentioned in project correspondence and suggest producer or third party responsibility. Until such time as the other responsible parties address these sources, efforts by Williams are invariably extended.

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 during the quarterly sampling events continues at the aforementioned sites and at times if observed at any other site.

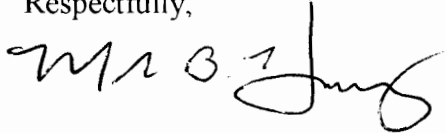
One site previously monitored (Patterson A COM #1A) met closure criteria in 2008 and a closure request was submitted in 2009. Williams plans to close the Patterson A COM #1A and abandon the monitoring wells there unless the NMOCD objects to that action in the next 60 days. Williams will also abandon monitoring wells at five other sites where closure requests were made based on meeting closure criteria. The closure notices for these sites were submitted on two occasions with no response from the NMOCD. Again, closure is assumed to be approved unless there is documented objection.

September 3, 2010
Mr. Glen Von Gonten
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As noted in the site summaries, laboratory reports have not been included in the annual 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,

A handwritten signature in black ink, appearing to read "Mr B. Harvey", with a stylized flourish at the end.

Mark B. Harvey
Project Manager

Enclosure

Note: Report previously submitted electronically April 4, 2010

3R-312

DOGIE EAST PIT

Site Summary Report

Site Name: Dogie East Pit

Reporting Period: 2009

Location: Unit D, Sec 4, Twn 25N, Rng 6W

Canyon: Largo

Operator: Williams

Status Narrative

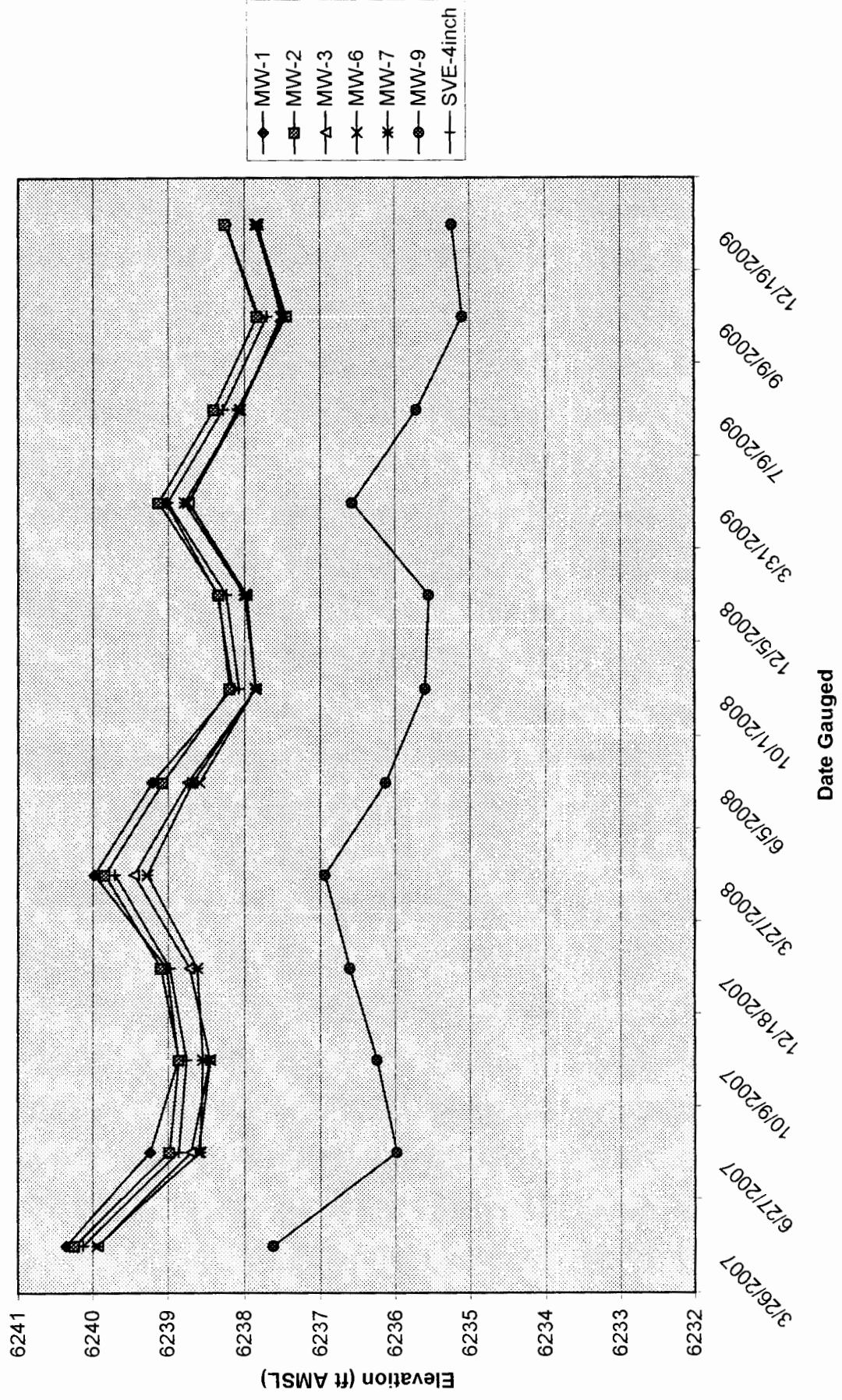
This site has nine monitoring wells installed in the original project area located at the northeast corner of the compressor station. To date, forty-five quarters of ground water monitoring have been completed. Source area well MW-2 has demonstrated twenty-nine consecutive quarters of BTEX concentrations below NMWQCC standards. In addition, the 4-inch SVE pilot well, which is also located within the source area, has not exceeded the BTEX standards during the last thirty quarters with no measurable BTEX for the last several years.

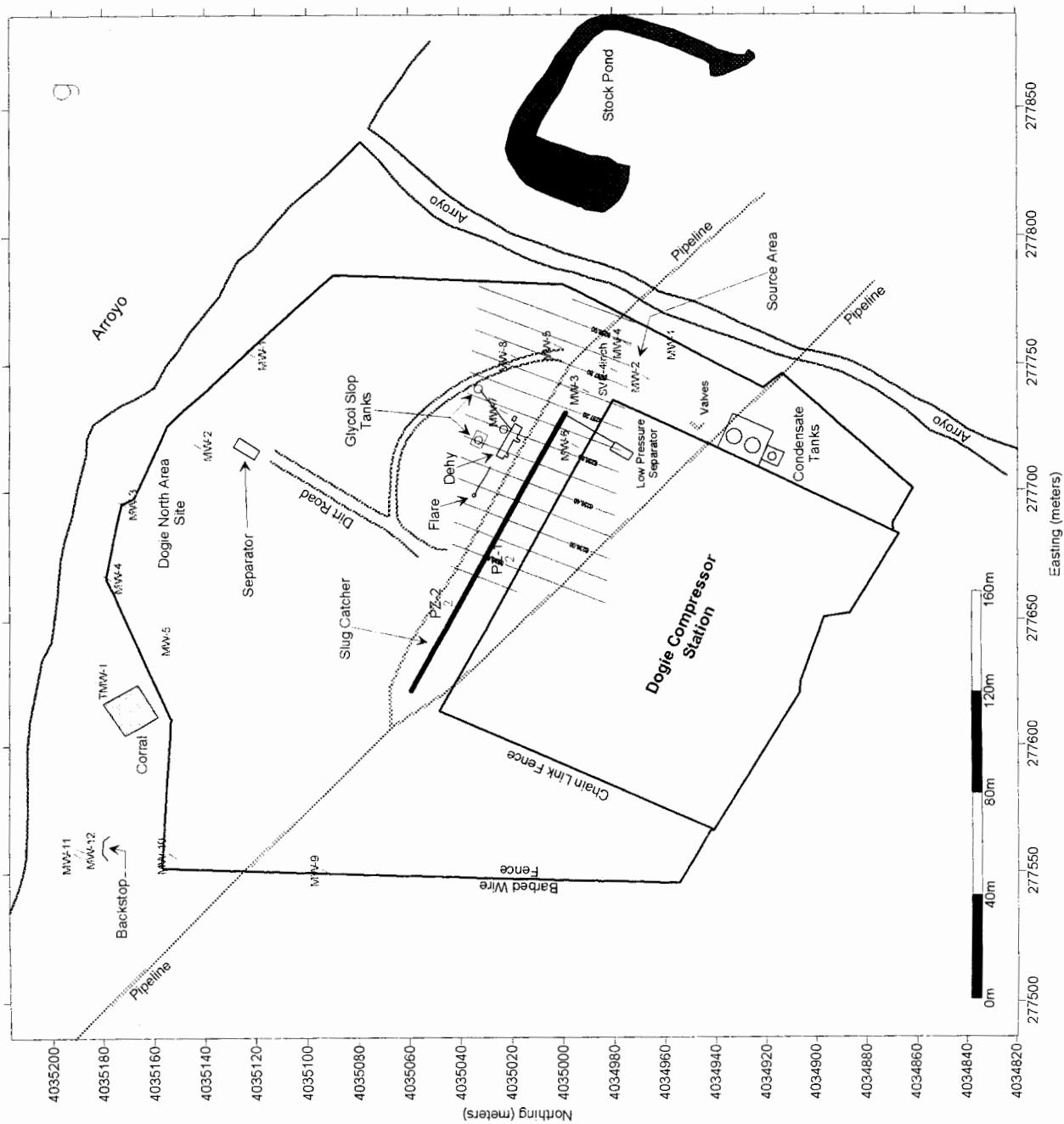
Down gradient monitoring well MW-3 continues to contain elevated levels of total BTEX which fluctuated during the monitoring period but remains significantly less than in the periods before 2005. Well MW-7, located downgradient of well MW-5, showed benzene concentrations diminishing over the high levels measured in previous years. In 2009, the measured benzene high in MW-7 was about 35% less than the high in 2008, continuing the declining trend.

MW-6 which previously was found with LNAPL, continues to show a significant drop in overall BTEX levels. Sentinel well MW-9 again had no detectable levels of BTEX. A summary of the analytical results is attached with all laboratory analytical reports retained for later submittal upon request for closure.

Ground water generally flowed north-northwest at an average hydraulic gradient of 0.002. Figure 2 shows the potentiometric surface for two of the quarterly sampling events. The attached hydrograph shows the seasonal variation in water-table elevations with the high levels in Spring. Monitored natural attenuation appears effective at this site, but unknown historical impacts from facility operations may influence the site closure schedule.

DOGE 2009 Hydrograph





Analytical Data Summary

Site Name:

Dogie East Pit

Reporting Period:

1/1/2008 To 12/31/2009

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-1						
	12/5/2008	112805DEC08	<1.0	<1.0	<1.0	<3.0
MW-2						
	3/27/2008	124127MAR08	<1.0	<1.0	<1.0	<3.0
	6/5/2008	150705JUN08	<1.0	<1.0	<1.0	<3.0
	10/1/2008	165801OCT08	<1.0	<1.0	<1.0	<3.0
	12/5/2008	113605DEC08	<1.0	<1.0	<1.0	<3.0
	7/9/2009	145209JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	142309SEP09	<1.0	<1.0	<1.0	<3.0
	12/19/2009	153919DEC09	<1.0	<1.0	<1.0	<3.0
MW-3						
	3/27/2008	131027MAR08	14.2	197	278	990
	6/5/2008	151505JUN08	32.6	34.4	131	429
	10/1/2008	171901OCT08	71.7	20.9	53.9	228
	12/5/2008	120105DEC08	34.3	214	167	682
	3/31/2009	163731MAR09	<5.0	56.3	134	481
	7/9/2009	151409JUL09	13.9	11.7	27.7	125
	9/9/2009	144309SEP09	23.8	155	378	1290
	12/19/2009	154819DEC09	35.0	35.9	317	790
MW-5						
	6/5/2008	152505JUN08	<5.0	<5.0	171	441
MW-6						
	3/27/2008	141127MAR08	940	410	308	1760
	6/5/2008	160705JUN08	3300	1970	746	5030
	10/1/2008	180001OCT08	3520	833	712	5760
	12/5/2008	131905DEC08	901	26.4	136	478
	3/31/2009	171731MAR09	1800	95.2	356	1280
	7/9/2009	155409JUL09	<1.0	<1.0	<1.0	<3.0
	12/19/2009	162419DEC09	958	13.3	239	880

Site Name:
Dogie East Pit

Reporting Period:
1/1/2008 To 12/31/2009

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-7						
	3/27/2008	133327MAR08	160	<1.0	<1.0	<3.0
	6/5/2008	153605JUN08	211	<5.0	<5.0	<15.0
	10/1/2008	173201OCT08	31.0	<1.0	<1.0	<3.0
	12/5/2008	121205DEC08	14.8	<1.0	<1.0	<3.0
	3/31/2009	165131MAR09	144	<1.0	<1.0	<3.0
	7/9/2009	152809JUL09	104	<1.0	<1.0	<3.0
	9/9/2009	145509SEP09	29.6	4.3	2.0	4.5
	12/19/2009	155819DEC09	20.8	<1.0	<1.0	<3.0
MW-9						
	3/27/2008	135127MAR08	<1.0	<1.0	<1.0	<3.0
	6/5/2008	154905JUN08	<1.0	<1.0	<1.0	<3.0
	10/1/2008	174401OCT08	<1.0	<1.0	<1.0	<3.0
	12/5/2008	122805DEC08	<1.0	<1.0	<1.0	<3.0
	3/31/2009	170231MAR09	<1.0	<1.0	<1.0	<3.0
	7/9/2009	154409JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	150709SEP09	<1.0	<1.0	<1.0	<3.0
	12/19/2009	161119DEC09	<1.0	<1.0	<1.0	<3.0
SVE-4inch						
	3/27/2008	125627MAR08	<1.0	<1.0	<1.0	<3.0
	10/1/2008	170901OCT08	<1.0	<1.0	<1.0	<3.0
	12/5/2008	114905DEC08	<1.0	<1.0	<1.0	<3.0
	7/9/2009	150409JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	143309SEP09	<1.0	<1.0	<1.0	<3.0