

3R – 312

2011 AGWMR

05 / 11 / 2012



Environmental Services
188 CR 4900
Bloomfield, NM 87413

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2012 MAY 14 A 11: 13

May 11, 2012

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

RE: 2011 GROUND WATER SUMMARY REPORT

Dear Mr. Von Gonten:

Enclosed for your review is the Williams 2011 Ground Water Summary Report. The report presents monitoring data for seven 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. Free product which has again appeared at the Dogie Compressor Station has been analyzed and found to be some type of refined product. A report on this finding will be presented under separate cover. Periodic emptying of the collection devices along with active bailing of LNAPL continues at all free product sites 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 (505) 402-1958 or Danny Reutlinger at (918) 573-2000.

Respectfully,

Mark Harvey
Project Manager

Enclosure

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



**Annual
Groundwater Report
2011**

San Juan Basin, New Mexico
Unlined Surface Impoundments

3R-312

Site Summary Report

Site Name: Dogie East Pit

Reporting Period: 2011

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, fifty-three quarters of ground water monitoring have been completed. Source area well MW-2 has now demonstrated four more consecutive quarters of BTEX concentrations below NMWQCC standards. Free product has returned in MW-6 and fingerprinting of the hydrocarbons in this well suggest a source other than any from or related to Williams operations. A sample of the free product was collected and analyzed and appears to have a gasoline "fingerprint" and is likely from a liquid product pipeline dissecting the site. With this finding, a second party will likely need to conduct an investigation of its' own and future work at the site could be on some type of cost sharing basis.

The only other wells with high levels of BTEX contamination are MW-3 and MW-7. The elevated levels of total BTEX in MW-3 are trending downward compared to previous monitoring periods. Well MW-7, located downgradient of well MW-5, again shows benzene concentrations diminishing over the high levels measured in previous years.

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 the Spring. Monitored natural attenuation appears effective at this site, but the discovery of what appears to be a new contaminant source will now influence the site closure schedule.

Site Name:
Dogie East Pit

Reporting Period:
1/1/2010 To 1/30/2012

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-7						
	3/30/2010	183730MAR10	137	<1.0	<1.0	<3.0
	6/22/2010	144122JUN10	131	<1.0	<1.0	<3.0
	9/16/2010	141116SEP10	47.7	<1.0	<1.0	<3.0
	12/9/2010	130509DEC10	20.9	<1.0	<1.0	<3.0
	3/10/2011	174810MAR11	73.7	<1.0	<1.0	<3.0
	6/15/2011	155015JUN11	72.6	<1.0	<1.0	<3.0
	9/13/2011	170813SEP11	13.0	<1.0	<1.0	<3.0
	1/6/2012	143206JAN12	27.7	2.2	<1.0	<3.0
MW-9						
	3/30/2010	184830MAR10	<1.0	<1.0	<1.0	<3.0
	6/22/2010	145522JUN10	<1.0	<1.0	<1.0	<3.0
	9/16/2010	142716SEP10	<1.0	<1.0	<1.0	<3.0
	12/9/2010	132309DEC10	<1.0	<1.0	<1.0	<3.0
	3/10/2011	181410MAR11	<1.0	<1.0	<1.0	<3.0
	6/15/2011	160015JUN11	<1.0	<1.0	<1.0	<3.0
	9/13/2011	172213SEP11	<1.0	<1.0	<1.0	<3.0
	1/6/2012	144606JAN12	<1.0	<1.0	<1.0	<3.0
SVE-4inch						
	9/16/2010	135616SEP10	<1.0	<1.0	<1.0	<3.0
	12/9/2010	124909DEC10	<1.0	<1.0	<1.0	<3.0
	3/10/2011	173410MAR11	<1.0	<1.0	<1.0	<3.0
	6/15/2011	153115JUN11	<1.0	<1.0	<1.0	<3.0
	9/13/2011	165413SEP11	<1.0	<1.0	<1.0	<3.0
	1/6/2012	141506JAN12	<1.0	<1.0	<1.0	<3.0

Analytical Data Summary

Site Name:
Dogie East Pit

Reporting Period:
1/1/2010 To 1/30/2012

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-1	12/9/2010	124009DEC10	<1.0	<1.0	<1.0	<3.0
MW-2	3/30/2010	175330MAR10	<1.0	<1.0	<1.0	<3.0
	6/22/2010	140922JUN10	<1.0	<1.0	<1.0	<3.0
	9/16/2010	134716SEP10	<1.0	<1.0	<1.0	<3.0
	12/9/2010	123609DEC10	<1.0	<1.0	<1.0	<3.0
	3/10/2011	172810MAR11	<1.0	<1.0	<1.0	<3.0
	6/15/2011	152315JUN11	<1.0	<1.0	<1.0	<3.0
	9/13/2011	164813SEP11	<1.0	<1.0	<1.0	<3.0
	1/6/2012	140806JAN12	<1.0	<1.0	<1.0	<3.0
MW-3	3/30/2010	180330MAR10	8.2	1.5	141	401
	6/22/2010	141922JUN10	6.1	4.1	30.9	100
	9/16/2010	140316SEP10	12.2	7.0	15.3	40.0
	12/9/2010	125609DEC10	1.0	2.3	13.1	28.9
	3/10/2011	173910MAR11	18.9	20.7	213	529
	6/15/2011	154015JUN11	4.5	34.4	118	345
	9/13/2011	170113SEP11	13.9	1.9	220	459
	1/6/2012	142406JAN12	6.6	<2.0	148	333
MW-5	3/30/2010	182130MAR10	<1.0	5.1	21.1	84.5
	6/22/2010	143022JUN10	1.0	9.4	99.4	270
MW-6	3/30/2010	190130MAR10	1160	46.1	487	2530
	6/22/2010	151022JUN10	3430	102	460	3410
	9/16/2010	143816SEP10	2940	144	370	2760
	12/9/2010	133809DEC10	2580	<20.0	457	2270
	3/10/2011	181810MAR11	1450	<20.0	369	1800
	6/15/2011	161115JUN11	726	<1.0	108	380

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	9/13/2011	165413SEP11	<1.0	<1.0	<1.0	<3.0
	1/6/2012	141506JAN12	<1.0	<1.0	<1.0	<3.0

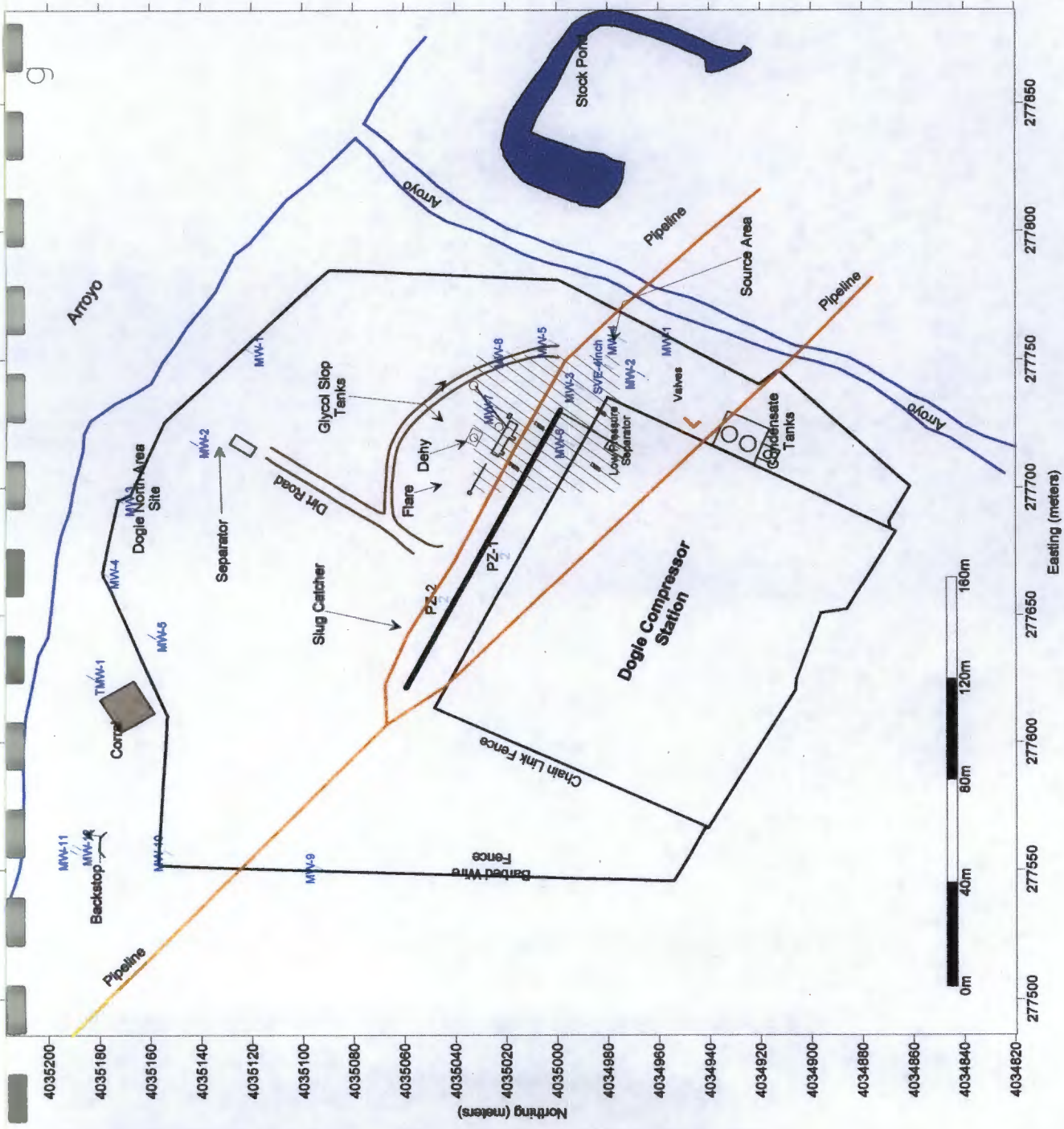
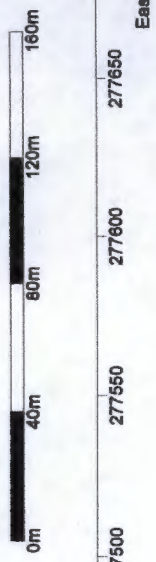


Figure 2
Potentiometric
Surface Map
Dogie Compressor Station (East Site)
March 2011

LEGEND

MW-2	Monitoring Well
— 5885.20	Ground Water Elevation (ft. AMSL)



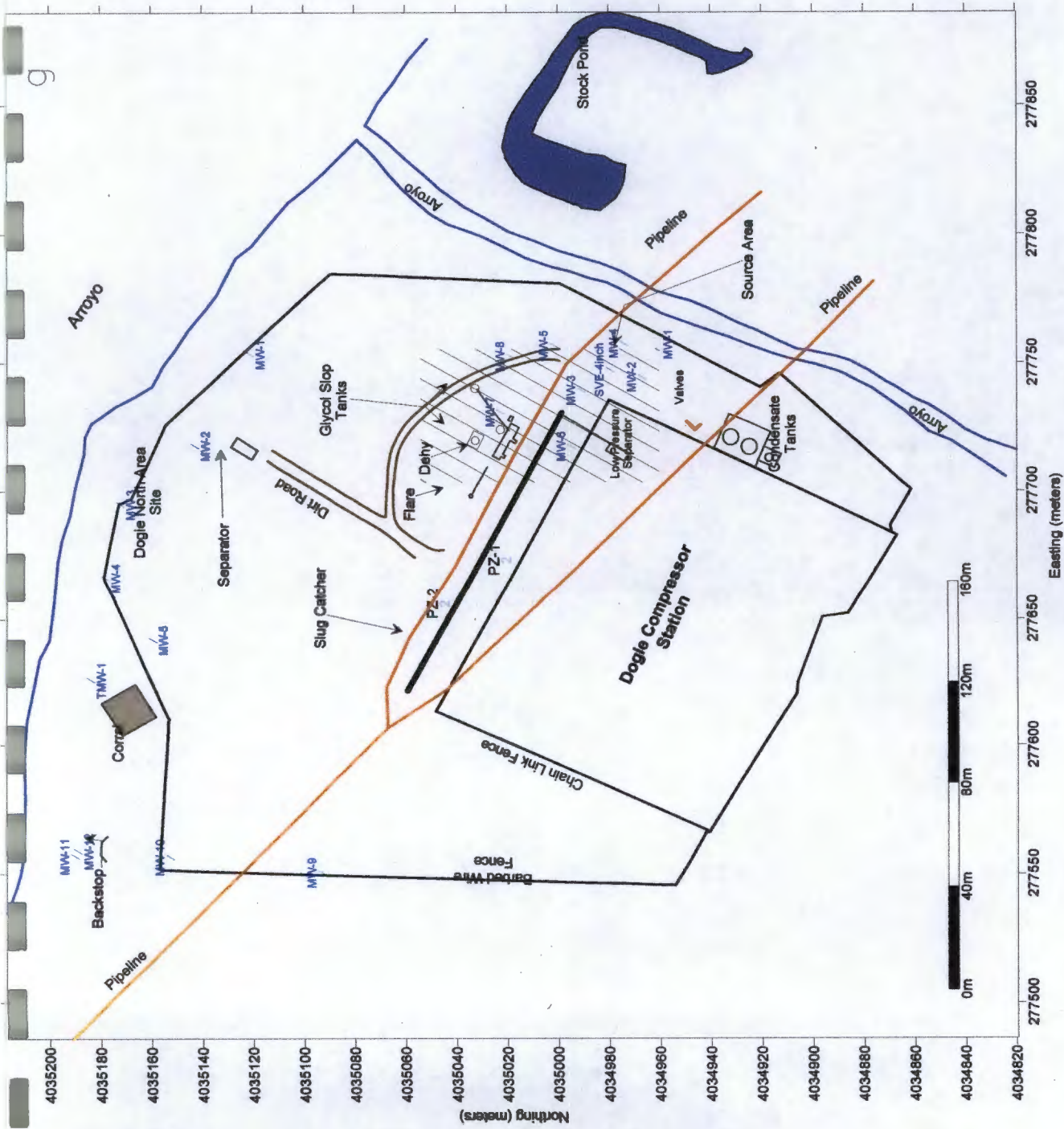


Figure 2
Potentiometric
Surface Map
Dogle Compressor Station (East Site)
September 2011

LEGEND

- MW-2 Monitoring Well
- 5665.20 Ground Water Elevation (ft. AMSL)

