

**3R – 311**

**2010 AGWMR**

**04 / 29 / 2011**



Environmental Services  
188 CR 4900  
Bloomfield, NM 87413

RECEIVED OCD  
2011 MAY -4 A 11: 04

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-311

DAVIS #1

## Site Summary Report

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**Site Name:** Davis 1

**Reporting Period:** 2010

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**Location:** Unit E, Sec 11, Twn 31N, Rng 12W

**Canyon:** Farmington Glade

**Operator:** Burlington

### Status Narrative

All wells monitored down gradient of source area well MW-2 continue to show no detectable BTEX. LNAPL reappeared in MW-2 and free product removal continues in 2009 and 2010. MW-2 and MW-5 continue to be the only wells with detectable BTEX and every indication suggests a stable or likely receding plume.

This site now has six monitoring wells and forty-four quarters of ground water monitoring to date. Monitoring of MW-5 was not performed in 2010 as there appears to be some damage preventing collection of samples. This well is not seen as essential so long as the source area well (MW-2) has measurable free product and the other down gradient wells have no BTEX contamination. Analytical results are provided in the attached summary table with lab reports retained in the project files to be submitted at the time of the closure request.

Ground water flows west-northwest with an average hydraulic gradient of 0.006. A seasonal rise in water table elevation has been observed in the spring, but overall influence in flow direction and gradient appears consistent with historical observation. Figure 2 shows the potentiometric surface for two of the quarterly sampling events. The hydrograph illustrates an overall decrease in water table elevation over the last several years. Monitored natural attenuation appears effective for this site and clean closure is likely.

## Analytical Data Summary

Site Name:

Davis 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-1						
	3/26/2008	130526MAR08	<1.0	<1.0	<1.0	<3.0
	6/10/2008	162010JUN08	<1.0	<1.0	<1.0	<3.0
	9/18/2008	162819SEP08	<1.0	<1.0	<1.0	<3.0
	12/4/2008	142904DEC08	<1.0	<1.0	<1.0	<3.0
	7/8/2009	105608JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	183009SEP09	<1.0	<1.0	<1.0	<3.0
	12/21/2009	134221DEC09	<1.0	<1.0	<1.0	3.0
	3/30/2010	094730MAR10	<1.0	<1.0	<1.0	<3.0
	6/18/2010	162018JUN10	<1.0	<1.0	<1.0	<3.0
	9/9/2010	123909SEP10	<1.0	<1.0	<1.0	<3.0
	12/3/2010	131803DEC10	<1.0	<1.0	<1.0	<3.0
MW-4						
	3/26/2008	132226MAR08	<1.0	<1.0	<1.0	<3.0
	6/10/2008	163310JUN08	<1.0	<1.0	<1.0	<3.0
	9/18/2008	164219SEP08	<1.0	<1.0	<1.0	<3.0
	12/4/2008	144704DEC08	<1.0	<1.0	<1.0	<3.0
	7/8/2009	115508JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	184309SEP09	<1.0	<1.0	<1.0	<3.0
	6/18/2010	170818JUN10	<1.0	<1.0	<1.0	<3.0
	9/9/2010	131109SEP10	<1.0	<1.0	<1.0	<3.0
	12/3/2010	132803DEC10	<1.0	<1.0	<1.0	<3.0
MW-6						
	3/26/2008	134926MAR08	<1.0	<1.0	<1.0	<3.0
	6/10/2008	170410JUN08	<1.0	<1.0	<1.0	<3.0
	9/18/2008	171619SEP08	<1.0	<1.0	<1.0	<3.0
	12/4/2008	151804DEC08	<1.0	<1.0	<1.0	<3.0
	3/31/2009	191631MAR09	<1.0	<1.0	<1.0	<3.0
	7/8/2009	114008JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	185609SEP09	<1.0	<1.0	<1.0	<3.0
	12/21/2009	140721DEC09	<1.0	<1.0	<1.0	<3.0
	3/30/2010	103430MAR10	<1.0	<1.0	<1.0	<3.0
	6/18/2010	172418JUN10	<1.0	<1.0	<1.0	<3.0
	9/9/2010	135109SEP10	<1.0	<1.0	<1.0	<3.0
	12/3/2010	134803DEC10	<1.0	<1.0	<1.0	<3.0

**Site Name:**

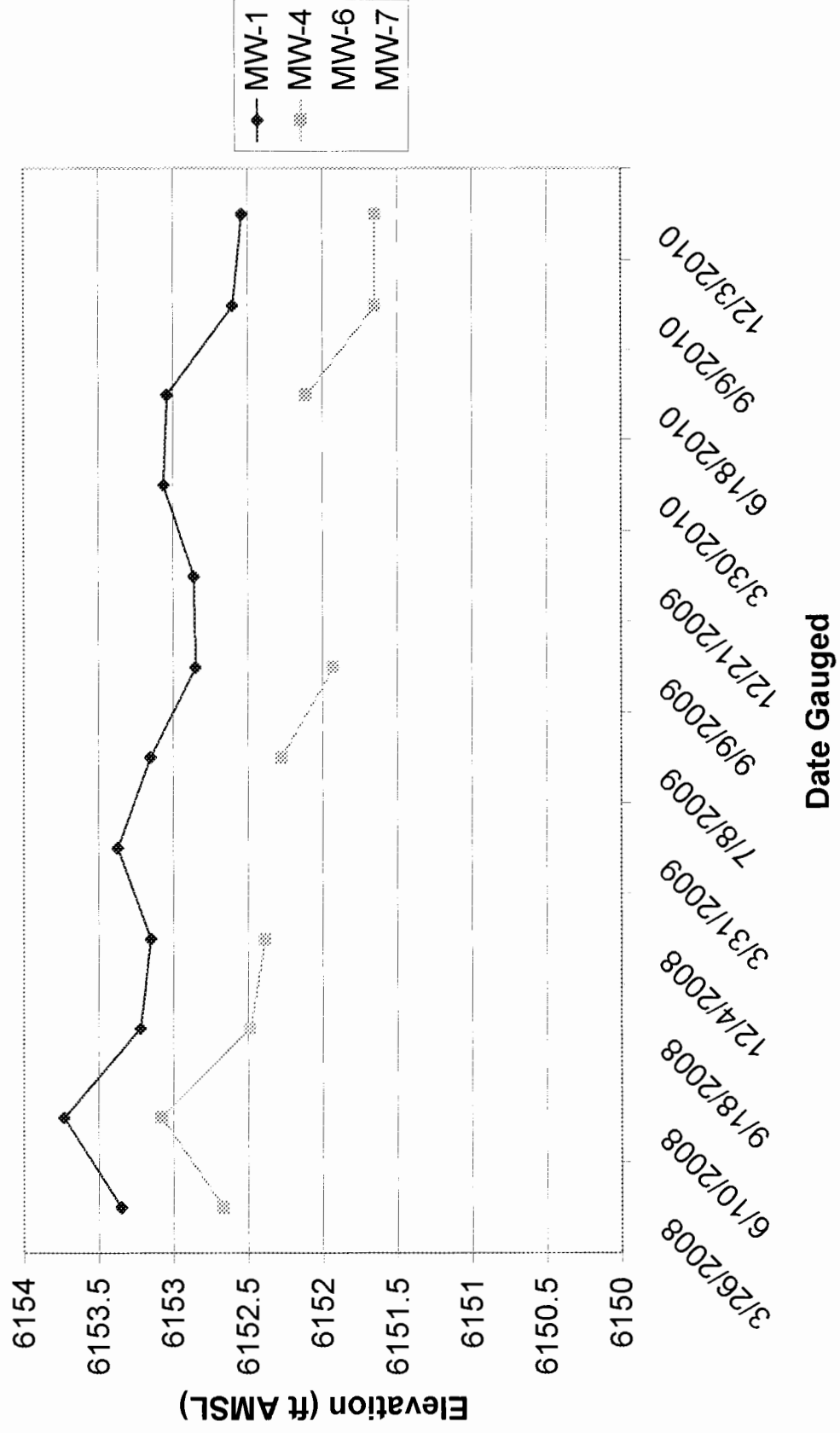
Davis 1

**Reporting Period:**

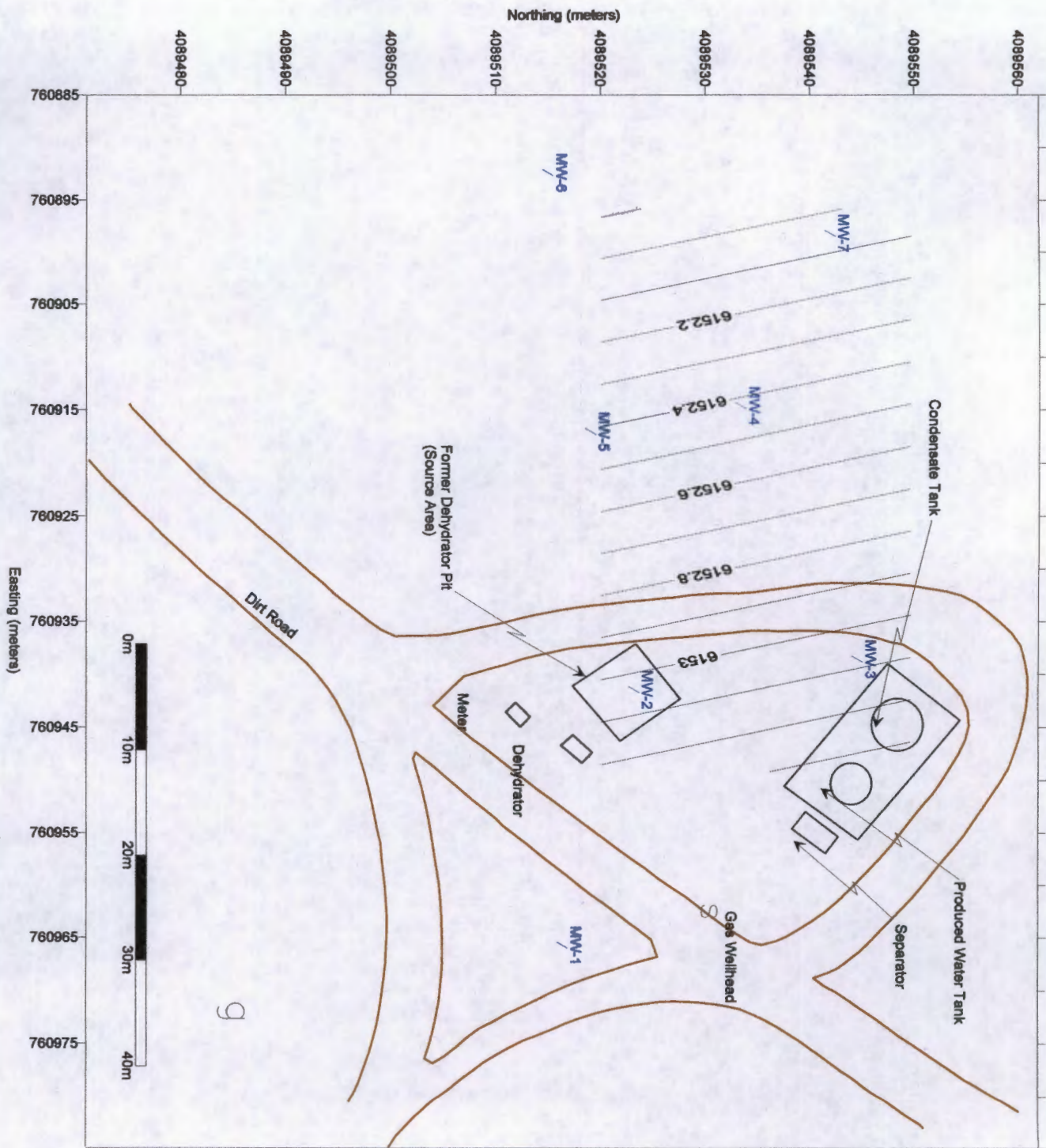
1/8/2008 To 12/31/2010

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-7						
	3/26/2008	133226MAR08	<1.0	<1.0	<1.0	<3.0
	6/10/2008	164610JUN08	<1.0	<1.0	<1.0	<3.0
	9/18/2008	165919SEP08	<1.0	<1.0	<1.0	<3.0
	12/4/2008	150204DEC08	<1.0	<1.0	<1.0	<3.0
	3/31/2009	185931MAR09	<1.0	<1.0	<1.0	<3.0
	7/8/2009	112908JUL09	<1.0	<1.0	<1.0	<3.0
	9/9/2009	190609SEP09	<1.0	<1.0	<1.0	<3.0
	12/21/2009	135421DEC09	<1.0	<1.0	<1.0	<3.0
	3/30/2010	102130MAR10	<1.0	<1.0	<1.0	<3.0
	6/18/2010	164818JUN10	<1.0	<1.0	<1.0	<3.0
	9/9/2010	132509SEP10	<1.0	<1.0	<1.0	<3.0
	12/3/2010	133703DEC10	<1.0	<1.0	<1.0	<3.0

# 2010 DVS Hydrograph



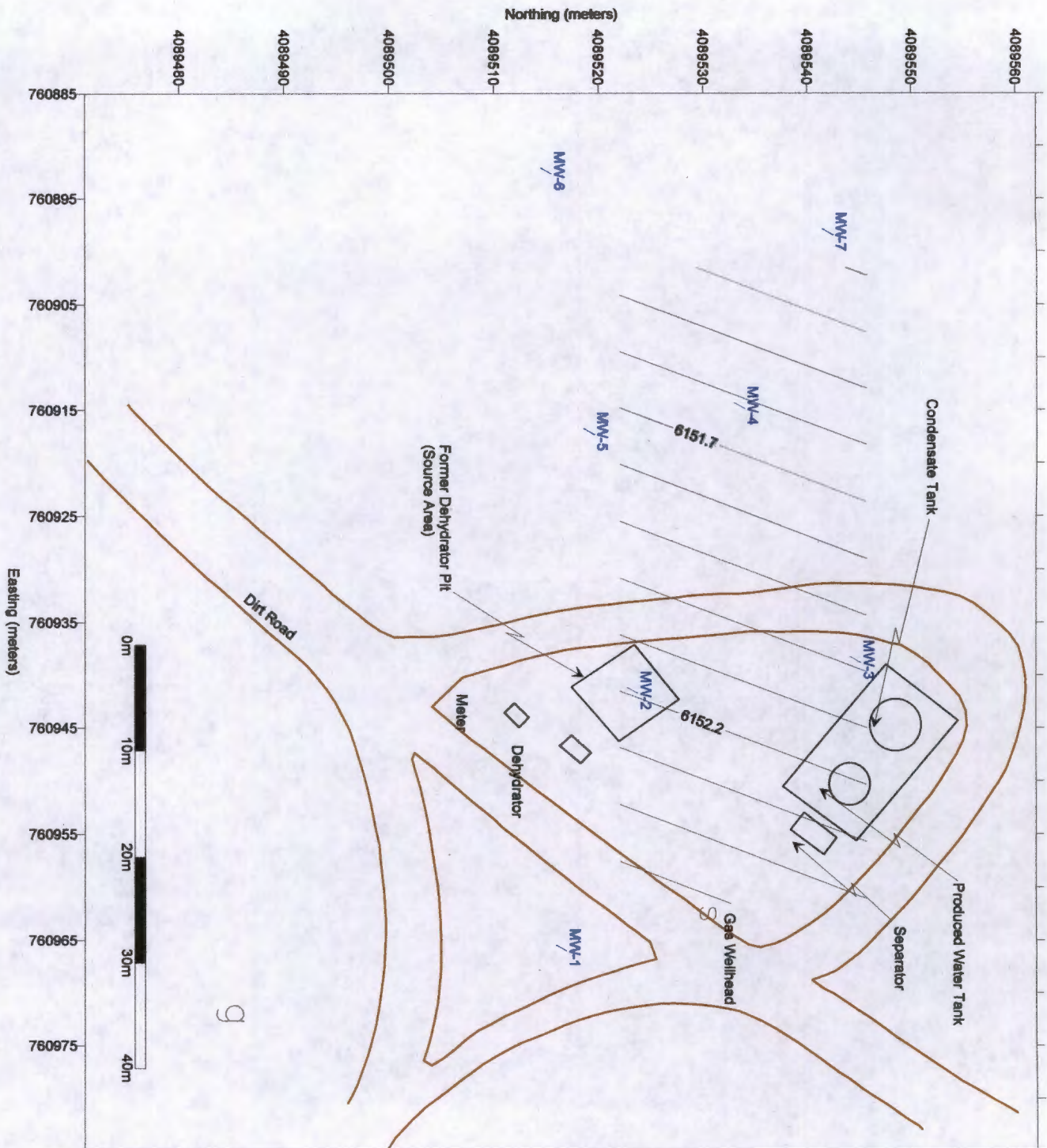




**Figure 2**  
**Potentiometric**  
**Surface Map**  
**Davis #1**  
**(March 2010)**

**LEGEND**

MW-2 / Monitoring Well  
 — 6565.20 — Ground Water Elevation (ft. AMSL)



**Figure 2**  
**Potentiometric**  
**Surface Map**  
**Davis #1**  
**September 2010**

