

# **FREMONT ENVIRONMENTAL INC.**

September 1, 2014

Mr. Phil Wright  
Homestead Oil Inc.  
16880 Wild Plum Circle  
Morrison, CO 80465

Subject:     **Site Investigation Report**  
              Stephens #1  
              API # 05-123-11552  
              SENW Sec 15, T4N, R66W  
              Weld County, Colorado  
              Fremont Project No. C014-027  
              Facility #243760, Remediation # 8307, Spill #2148350

Dear Mr. Wright:

Enclosed please find a copy of the above referenced Site Investigation Report for the Stephens #1 site in Weld County, Colorado. The enclosed report describes site investigation and sampling efforts to assess soil and ground water quality at the site.

Please contact me at (303) 956-8714 if you require any additional information.

Fremont appreciates the opportunity to provide this service.

Sincerely,  
**FREMONT ENVIRONMENTAL INC.**

A handwritten signature in blue ink, appearing to read "Paul V. Henahan", with a stylized flourish at the end.

Paul V. Henahan, P.E.  
Senior Consultant

Enclosure

**SITE INVESTIGATION REPORT**  
**HOMESTEAD OIL INC.**  
**STEPHENS #1 WATER VAULT RELEASE**  
**WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C014-027**  
**FACILITY #243760, REMEDIATION #8307, SPILL #2148350**

**Prepared by:**

**Fremont Environmental Inc.**  
**12061 Pennsylvania Street, Suite A-105**  
**Thornton, CO 80241**  
**(303) 956-8714**

**September 1, 2014**

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Appendix A:	Boring Logs
Appendix B:	Sampling Plan
Appendix C:	Laboratory Documentation

**SITE INVESTIGATION REPORT**  
**HOMESTEAD OIL INC.**  
**STEPHENS #1 WATER VAULT RELEASE**  
**WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C014-027**  
**FACILITY #243760**

**1.0 INTRODUCTION**

The purpose of this document is to present soil and ground water quality data collected during a site investigation at Homestead Oil Inc.'s (Homestead's) Stephens #1 site in Weld County, Colorado. Impacted soil and ground water were identified at this location due to a release from the produced water vault as the well and facility were being plugged and abandoned. Eight monitoring wells were installed at this site on August 20, 2014 to delineate the magnitude and extent of subsurface impacts.

**2.0 BACKGROUND INFORMATION**

**2.1 Site Location**

The Stephens #1 site is located approximately 1.5 miles north of Gilcrest, Colorado in Weld County as shown on Figure 1. The site is located in a rural and agricultural area 0.5 miles southeast of the intersection of County Road 31 and County Road 46. The location is further described as the SE  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of Section 15, Township 4N, Range 66W.

**2.2 Site History**

The site consists of the former water vault and aboveground storage tank (AST) for the Stephens #1 natural gas well. The well was drilled in 1984 to a depth of 7,850 feet. Soil impacts were recently identified during the plugging and abandoning of this well and ancillary equipment. Those observations initiated the site investigation at this location to determine the extent of subsurface impacts.



An excavation to remediate the source impacts was undertaken on May 5, 2014 by Fremont Environmental Inc. (Fremont). Approximately 120 cubic yards of impacted soil were excavated and removed from the storage tank and water vault area. One ground water sample was collected from the excavation and analyzed for petroleum constituents. The laboratory analysis of the water sample indicated that the ground water exhibited a dissolved petroleum concentration of benzene of 4,112 ug/L which is greater than the Colorado Oil and Gas Conservation Commission's (COGCC's) Table 910-1 limit of 5 ug/L. As a result, a site investigation to determine the extent of ground water impacts was required.

### **3.0 SITE INVESTIGATION ACTIVITIES**

#### **3.1 Soil Borings/Monitoring Wells**

A site investigation was conducted at the site on August 20, 2014. Eight soil borings were advanced utilizing a Geoprobe rig. All of these borings were completed as flush-mounted, 1-inch diameter monitoring wells. These monitoring wells were used to delineate the extent of soil and ground water impacts at the site. The locations of these monitoring wells are illustrated on the attached figures.

Generally, the subsurface consists of sand with some silty sand to a depth of approximately 36 feet. Ground water is present across the site at a depth of approximately 18 feet. The maximum depth of one of the borings (MW-1) was 36 feet. Geologic cross sections are presented on Figure 3.

The 1-inch diameter monitoring wells were constructed with 10 feet sections of well screen that were placed at a total depth of approximately 25 feet and completed at the ground surface with flush-mounted vaults. Soil samples from each of the borings were

evaluated in the field using a photoionization detector (PID). Logs of the monitoring wells are presented in Appendix A.

Soil samples were collected from each of the borings and sent to eAnalytics Laboratory in Loveland, Colorado for the analyses of benzene, toluene, ethylbenzene and xylenes (BTEX), naphthalene, total petroleum hydrocarbons-gasoline range organics (TPH-GRO), and TPH-diesel range organics (TPH-DRO).

Soil impacts were observed in the vadose zone in only one of the eight borings above the COGCC's Table 910-1 limits for TPH-GRO and TPH-DRO. Elevated concentrations of TPH-GRO and TPH-DRO were present in monitoring well MW-1 at a depth of 16 feet. A soil sample collected from this same boring at a depth of 28 feet had concentrations that were less than the COGCC Table 910-1 limits. These data suggest that the previous excavation was partially successful in removing the impacted soil in the unsaturated zone. The soil chemistry is presented on Figure 4 and summarized on Table 1. The laboratory's report is provided in Appendix C.

### **3.2 Ground Water Monitoring**

Ground water levels were measured in the eight monitoring wells on August 20, 2014 in accordance with the Sampling Plan included in Appendix B. The ground water data are summarized in Table 2.

Water table contours inferred from the August 2014 data are illustrated on Figure 5. Based on these data, ground water is inferred to flow to the northeast. The water table gradient was calculated at approximately 0.003 feet per foot (ft/ft) for the August 2014 data.

### **3.3 Ground Water Sampling and Analysis**

Ground water samples were collected from the eight monitoring wells on August 20, 2014. All ground water samples were submitted to eAnalytics Laboratory, Inc. for analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260C.

The ground water samples from MW-1, MW-3 and MW-5 had benzene concentrations of 2,616, 8.1, and 1,755 ug/L, respectively, which are above the COGCC Table 910-1 limit of 5 ug/L for benzene. The ground water chemistry of the other monitoring wells were below their respective COGCC Table 910-1 values. The ground water chemistry is shown on Figure 6.

The ground water analytical data are summarized in Table 2. A copy of the laboratory's report is presented in Appendix C.

## **4.0 DISCUSSION**

A site investigation was conducted at the Stephens #1 location on August 20, 2014 as a result of a historical release that occurred at the produced water vault. These impacts were discovered during the plugging and abandoning of this well and facility. Eight monitoring wells were installed at the site to delineate the magnitude and extent of soil and ground water impacts.

Soil impacts above the COGCC Table 910-1 limits were observed in one of the eight monitoring wells at a depth of approximately 16 feet. As noted above, an excavation project was conducted in May 2014 to remove impacted soil from the source area at this location. Approximately 120 cubic yards of impacted soil were excavated and removed from the site at that time.

The data collected from the monitoring wells indicates that the ground water flow direction is to the northeast. Further, the benzene concentrations for monitoring wells MW-1, MW-3 and MW-5 were above the COGCC Table 910-1 allowable levels with concentrations of 2,616, 8.1, and 1,755 ug/L, respectively. Monitoring well MW-1 is located in approximately the location of the former aboveground storage tank and water vault; well MW-5 is located downgradient from MW-1 but still within the impacted ground water plume. Monitoring well MW-3 was installed upgradient from the former water vault; however, low concentrations of benzene were still present within this well. These data, as well as the ground water chemistry data for the other monitoring wells, are illustrated on Figure 6.

Homestead is currently evaluating the remedial options available to address residual ground water impacts. In the interim, Homestead will sample the ground water at this site on a quarterly basis to evaluate the BTEX concentrations relative (COGCC's) Table 910-1 requirements.

### **5.0 REMARKS**

The discussion and conclusions contained in this report represent our professional opinions. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by **FREMONT ENVIRONMENTAL INC.**



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Paul V. Henahan, P.E.

Senior Consultant

9/1/14  
Date \_\_\_\_\_

Reviewed by:



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Michael R. Gerstner

Senior Geologist

9/1/14  
Date \_\_\_\_\_

## TABLES

**TABLE 1**  
**SUMMARY OF SOIL CHEMISTRY DATA**  
**HOMESTEAD OIL COMPANY**  
**STEPHENS #1, WELD COUNTY, COLORADO**  
**FREMONT PROJECT NO. C014-027**

SAMPLE LOCATION	DATE SAMPLED	DEPTH ft	BENZENE mg/kg	TOLUENE mg/kg	ETHYL BENZENE mg/kg	TOTAL XYLENES mg/kg	NAPHTH-ALENE mg/kg	TPH-GRO mg/kg	TPH-DRO mg/kg
MW-1	08/20/14	16	<0.01	0.053	0.79	24.0	2.49	884	734
MW-1	08/20/14	28	<0.01	<0.01	0.037	0.191	0.063	<50	56.2
MW-2	08/20/14	16	<0.01	<0.01	<0.01	<0.01	<0.01	<50	<50
MW-3	08/20/14	16	<0.01	<0.01	<0.01	<0.01	<0.01	<50	<50
MW-4	08/20/14	16	<0.01	<0.01	<0.01	<0.01	<0.01	<50	<50
MW-5	08/20/14	16	<0.01	<0.01	<0.01	<0.01	<0.01	<50	<50
MW-6	08/20/14	16	<0.01	<0.01	<0.01	<0.01	<0.01	<50	<50
MW-7	08/20/14	16	<0.01	<0.01	<0.01	<0.01	<0.01	<50	<50
MW-8	08/20/14	16	<0.01	<0.01	<0.01	<0.01	<0.01	<50	<50
<b>COGCC Table 910-1 Concentrations</b>			<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>23</b>	<b>500*</b>	<b>500*</b>

The TPH-GRO and TPH-DRO concentrations are added together; if the sum of the two is >500 mg/kg, this exceeds the COGCC Table 910-1 limit

TABLE 2  
SUMMARY OF GROUND WATER ELEVATION DATA AND CHEMISTRY DATA  
HOMESTEAD OIL INC.  
STEPHENS #1, WELD COUNTY, COLORADO  
FREMONT PROJECT NO. C014-027

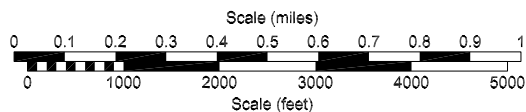
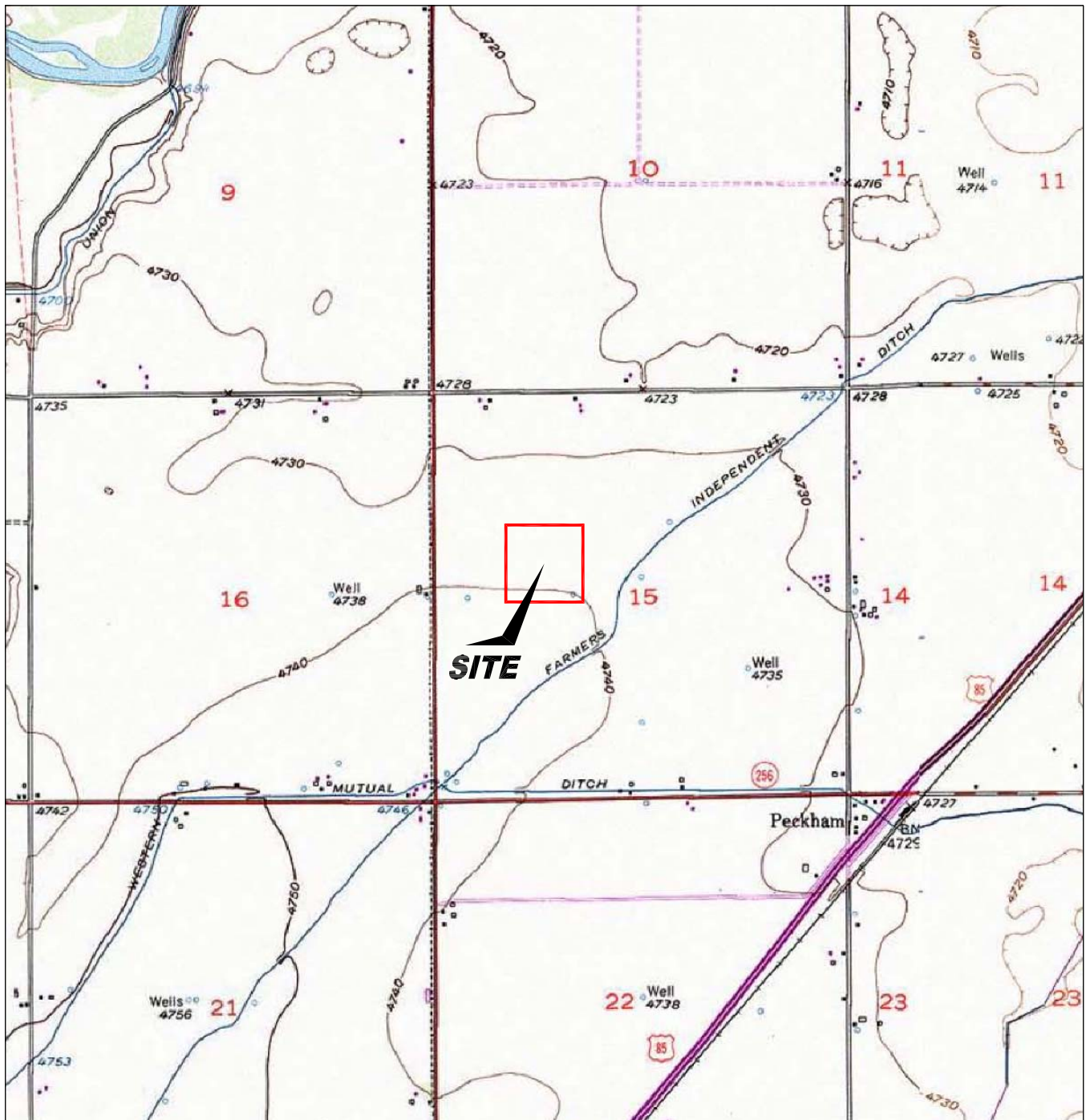
SAMPLE LOCATION	DATE	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL BENZENE (µg/L)	TOTAL XYLENES (µg/L)	TOC ELEVATION (feet)	DEPTH TO GROUND WATER (ft)	GROUND WATER ELEVATION (ft)	FREE PRODUCT THICKNESS (ft)
MW-1	08/20/14	<b>2616</b>	<b>3751</b>	<b>4182</b>	<b>96434</b>	99.22	17.94	81.28	NP
MW-2	08/20/14	<1.0	<1.0	<1.0	<1.0	99.43	18.11	81.32	NP
MW-3	08/20/14	<b>8.1</b>	<1.0	<1.0	<1.0	99.81	18.39	81.42	NP
MW-4	08/20/14	<1.0	<1.0	<1.0	<1.0	99.89	18.63	81.26	NP
MW-5	08/20/14	<b>1755</b>	<b>3134</b>	454	<b>10854</b>	99.68	18.55	81.13	NP
MW-6	08/20/14	<1.0	<1.0	<1.0	<1.0	99.51	18.3	81.21	NP
MW-7	08/20/14	<1.0	<1.0	<1.0	<1.0	100.00	19.00	81.00	NP
MW-8	08/20/14	<1.0	<1.0	<1.0	<1.0	99.29	18.33	80.96	NP
Table 910-1 Limits		5	560	700	1,400				

Bold face values exceed the COGCC limits

NP - No Free Product



## **FIGURES**



USGS 7.5 MINUTE SERIES (TOPOGRAPHIC)

Figure 1  
SITE LOCATION MAP

**Homestead Oil - Stephens 1**  
SW NW Section 15, T4N, R66W  
Weld County, Colorado

Project No.  
C014-027

Prepared by

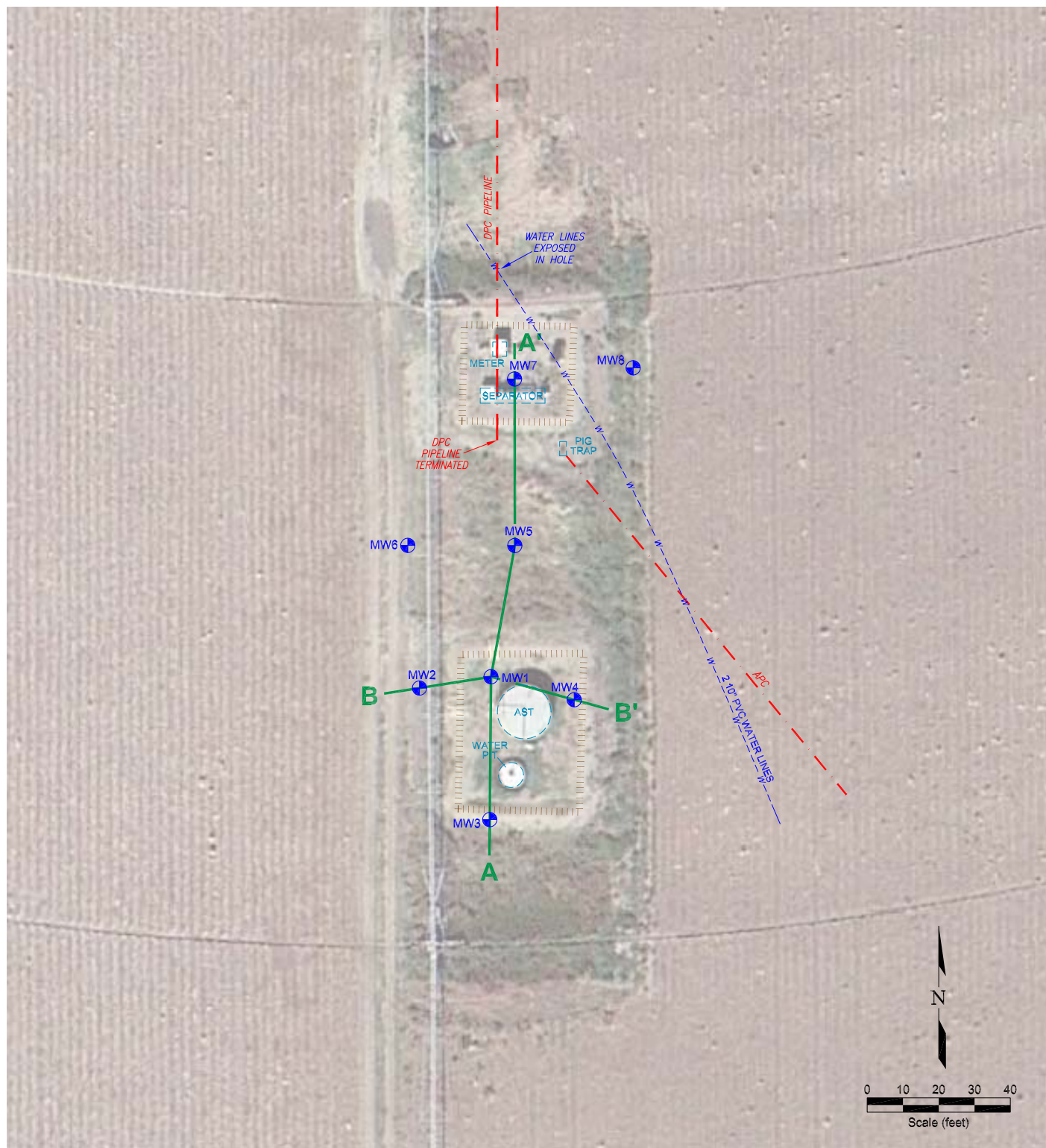
Drawn by  
JMA

Date  
8/22/14

Reviewed by

Filename  
14027T





# LEGEND

	MONITORING WELL
	CONTAINMENT
	FORMER FACILITY
	PIPELINE
	WATER LINE (buried)

Figure 2  
SITE MAP

**Homestead Oil - Stephens 1**  
SW NW Section 15, T4N, R66W  
Weld County, Colorado

Project No.  
**C014-027**

Prepared by

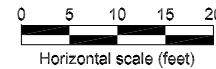
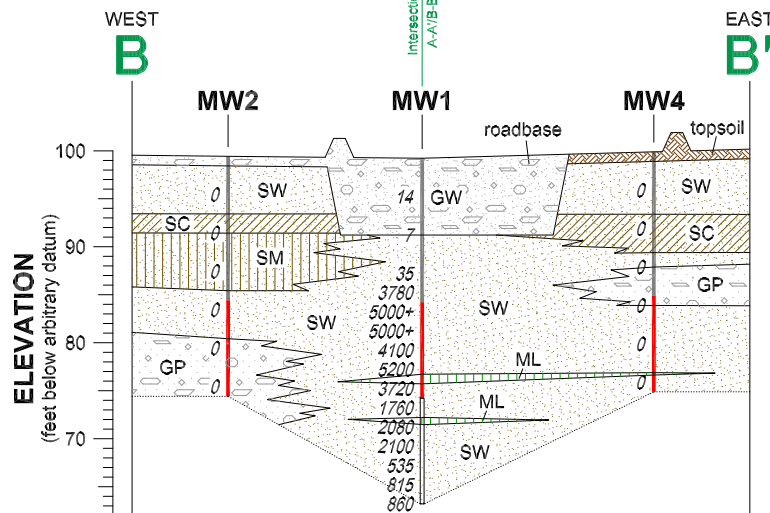
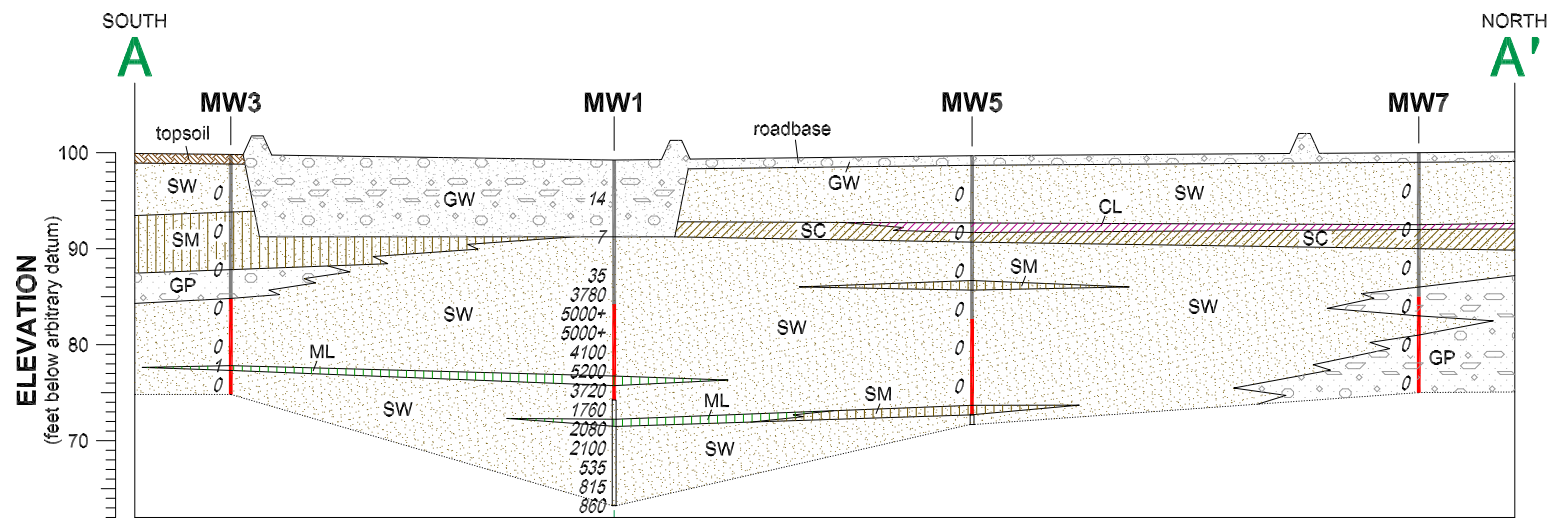
Drawn by  
**JMA**

Date  
**8/28/14**

Reviewed by

Filename  
**14027Q**





#### LEGEND

CL	Clay, low-plasticity	SW	Sand well-graded	
ML	Silt low-plasticity	GW	Gravel well-graded	
SC	Sand, clayey	GP	Gravel poorly-graded	
SM	Sand, silty		Topsoil	

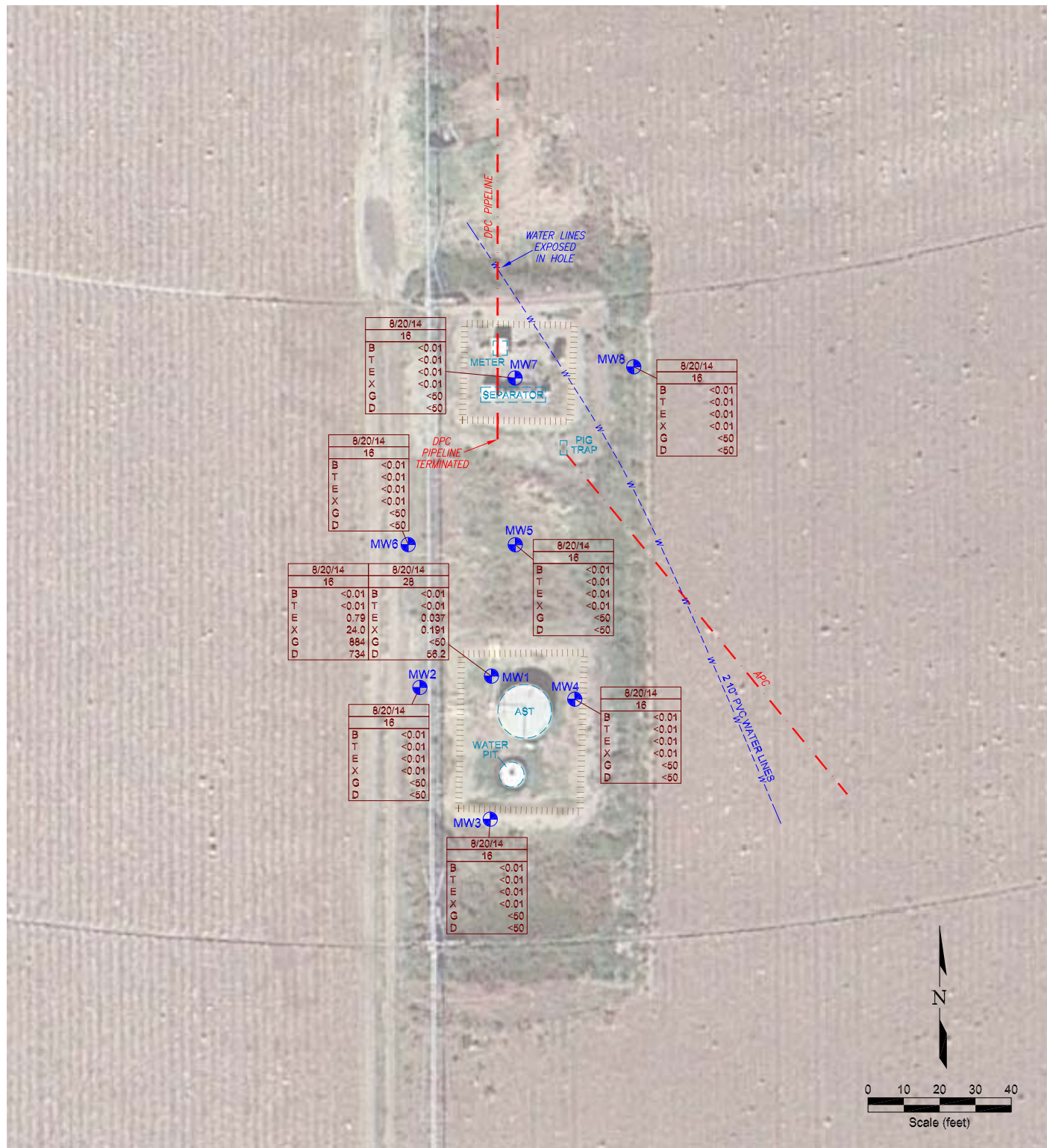
Figure 3

#### CROSS-SECTIONS A-A' AND B-B'

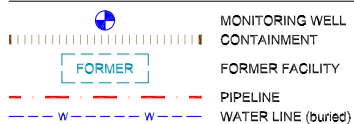
**Homestead Oil - Stephens 1**  
SW NW Section 15, T4N, R66W  
Weld County, Colorado

Project No. C014-027	Prepared by	Drawn by JMA	
Date 8/26/14	Reviewed by	Filename 14027X	





#### LEGEND



8/20/14	
16	
B	<0.01
T	<0.01
E	<0.01
X	<0.01
G	<50
D	<50

NA

DATE SAMPLED  
SAMPLE DEPTH (ft)  
BENZENE (mg/kg)  
TOLUENE (mg/kg)  
ETHYLBENZENE (mg/kg)  
TOTAL XYLENES (mg/kg)  
TPH-GRO (mg/kg)  
TPH-DRO (mg/kg)  
NOT ANALYZED

Figure 4  
SOIL CHEMISTRY

**Homestead Oil - Stephens 1**  
SW NW Section 15, T4N, R66W  
Weld County, Colorado

Project No.  
**C014-027**

Date  
**8/28/14**

Prepared by

Reviewed by

Drawn by  
**JMA**

Filename  
**14027Q**





#### LEGEND





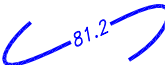

-  MONITORING WELL
-  CONTAINMENT
-  FORMER FACILITY
-  GROUND WATER ELEVATION (ft above arbitrary datum)
-  WATER TABLE CONTOUR
-  GROUND WATER FLOW DIRECTION

Figure 5  
**INFERRED GROUNDWATER CONTOUR**  
**AUGUST 20, 2014**

**Homestead Oil - Stephens 1**  
 SW NW Section 15, T4N, R66W  
 Weld County, Colorado

Project No.  
**C014-027**

Prepared by

Drawn by  
**JMA**

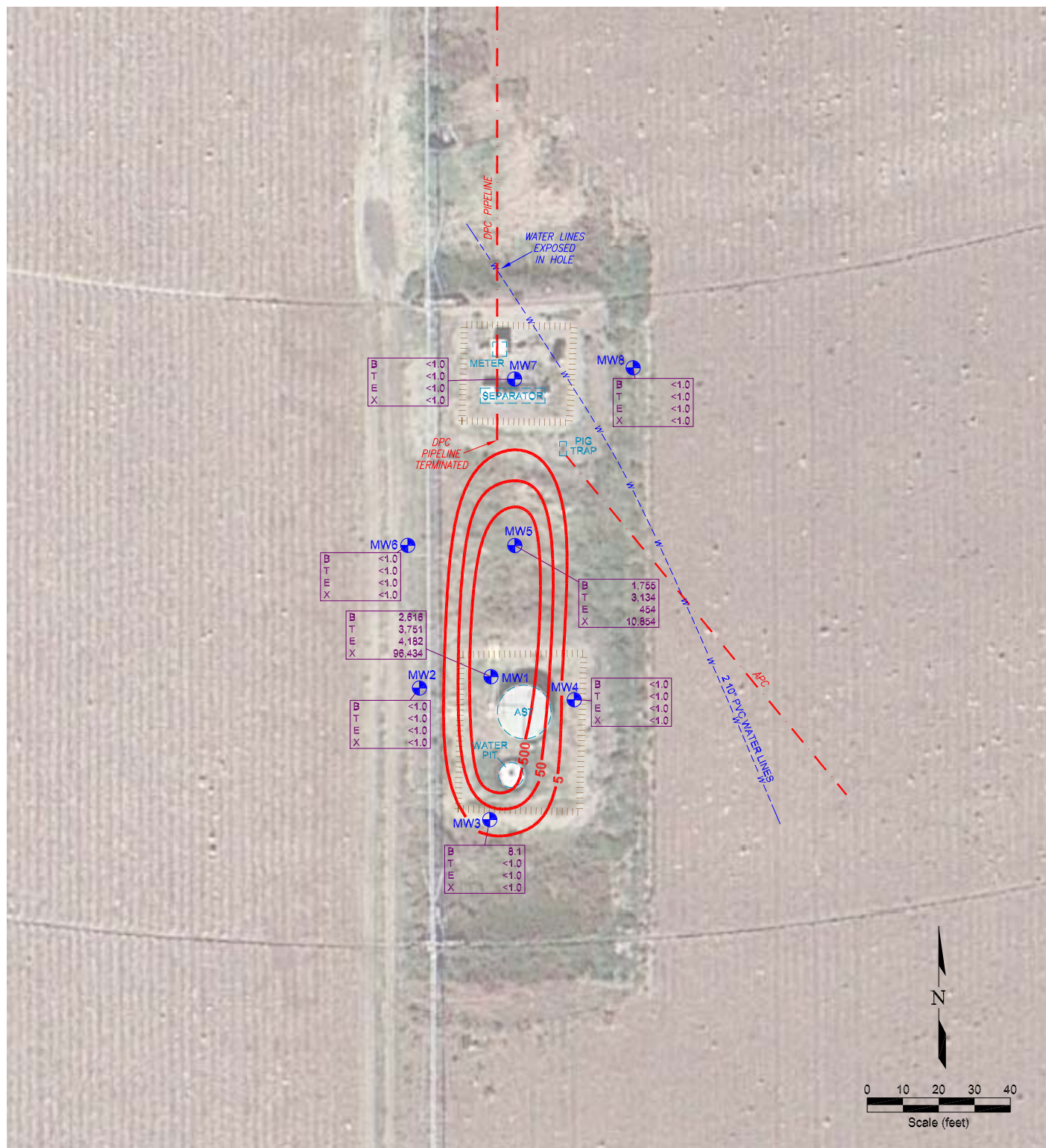
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**8/28/14**

Reviewed by

Filename  
**14027Q**







#### LEGEND

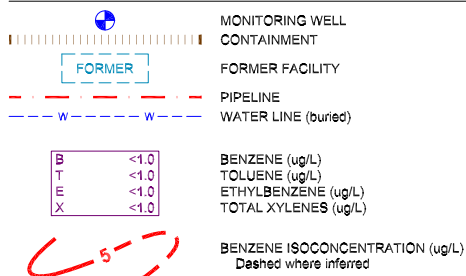


Figure 6  
**GROUND WATER CHEMISTRY MAP**  
**AUGUST 20, 2014**

**Homestead Oil - Stephens 1**  
SW NW Section 15, T4N, R66W  
Weld County, Colorado

Project No.  
**C014-027**

Prepared by

Drawn by  
**JMA**

Date  
**8/28/14**

Reviewed by

Filename  
**14027Q**



APPENDIX A

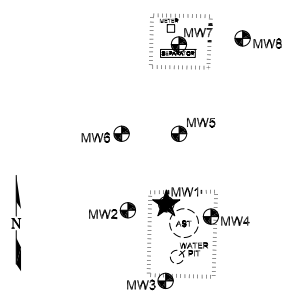
**BORING LOGS**





# BORING/WELL CONSTRUCTION LOG

Boring/Well Location Sketch Map



Page 1 of 2

Boring/Well No. <b>MW1</b>		Total Depth <b>36'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>			
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>			Drilling Contractor/Driller <b>DrillPro</b>			
Geologist/Office <b>PVH</b>			Approved By			
Drilling Equipment/Method <b>Hurricane</b>			Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>	Start/Finish Date <b>8/20/14</b>	
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>			
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>99.22</b>	Top of Screen <b>84.22</b>	Bottom of Screen <b>74.22</b>	Ground Water Surface/Date Measured <b>81.28 8/20/14</b>	

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
5	Bentonite	1" Blank	GW	Roadbase, sandy pit-run fill, light odor, no stain			
						4	14
						8	7
						12	35
10			SW	Sand, no stain, no odor			
				coarse			
				light brown w/small gravel, moderate petroleum odor		14	3780
						16	5000+
15	#10-20 Silica Sand	1" Screen		brown			
				Water level 17.94'			
				moist, gray		18	5000+
				wet, moderate odor			
20						20	4100

# BORING/WELL CONSTRUCTION LOG

Page 2 of 2

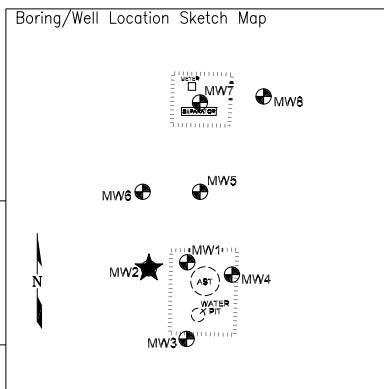
Boring/Well No. <b>MW1</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>				
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>								
DEPTH (feet)	WELL CONSTRUCTION			LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
				GRAPHIC LOG	VISUAL DESCRIPTION			
25	<div>#10-20 Silica Sand</div> <div>1" Screen</div>			Sand, continued		22	5200	
				Silt, sandy		24	3720	
				Sand, coarse, gray, light to moderate petroleum odor gray, wet		26	1760	
				same -> brown color		28	2080	
30				Silt, sandy		30	2100	
		Sand, coarse, black, with weathered odor moderate odor		32		535		
		could be slough		34		815		
				36		860		
35				TD 36'				
40								
45								



# BORING/WELL CONSTRUCTION LOG

Page **1** of **2**

Boring/Well No. <b>MW2</b>		Total Depth <b>25'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>	
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>			Drilling Contractor/Driller <b>DrillPro</b>	
Geologist/Office <b>PVH</b>			Approved By	
Drilling Equipment/Method <b>Hurricane</b>		Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>	Start/Finish Date <b>8/20/14</b>
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>	
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>99.43</b>	Top of Screen <b>84.43</b>	Bottom of Screen <b>74.43</b>
		Ground Water Surface/Date Measured <b>81.32 8/20/14</b>		



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	Bentonite	1" Blank	GW	Roadbase			
				Sand, brown, moist, no stain, no odor			
5			SW			4	0
				Sand, clayey, no stain, no odor			
			SC			8	0
10				Sand, silty, moist, no stain, no odor			
			SM			12	7
15	#10-20 Silica Sand	1" Screen		Sand, coarse, brown, no stain, no odor		16	0
			SW				
				Water level 18.11' wet			
20			GP	Sand and gravel, brown, no stain, no odor		20	0

# BORING/WELL CONSTRUCTION LOG

Page 2 of 2

Boring/Well No. <b>MW2</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>				
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>								
DEPTH (feet)	WELL CONSTRUCTION			LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
				GRAPHIC LOG	VISUAL DESCRIPTION			
25	#10-20 Silica Sand	1" Screen	GP	Sand and gravel, continued			24	0
30								
35								
40								
45								

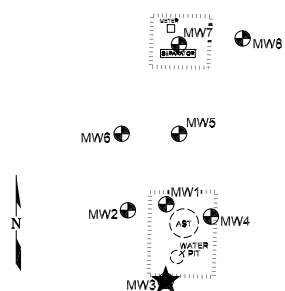


# BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. <b>MW3</b>	Total Depth <b>25'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>	
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>		Drilling Contractor/Driller <b>DrillPro</b>	
Geologist/Office <b>PVH</b>		Approved By	
Drilling Equipment/Method <b>Hurricane</b>		Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>99.91</b>	Top of Screen <b>84.81</b>
		Bottom of Screen <b>74.81</b>	Ground Water Surface/Date Measured <b>81.42 8/20/14</b>

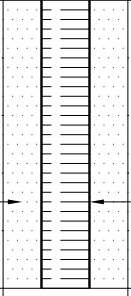

Boring/Well Location Sketch Map



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	Bentonite	1" Blank		Topsoil			
				Sand, brown, fine, no stain, no odor			
5				Sand, silty, no stain, no odor		4	0
10				Sand and gravel		8	0
15	#10-20 Silica Sand	1" Screen		Sand, coarse, no stain, no odor		12	0
				Water level 18.39'		16	0
20				wet		20	0

# BORING/WELL CONSTRUCTION LOG

Page 2 of 2

Boring/Well No. <b>MW3</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>			
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>							
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
25			Sand, continued			22 ————— 1	24 ————— 0
			Silt, sandy, gray and black				
			Sand, coarse				
30			TD 25'				
35							
40							
45							

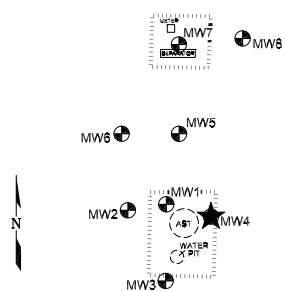


# BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. <b>MW4</b>	Total Depth <b>25'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>	
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>		Drilling Contractor/Driller <b>DrillPro</b>	
Geologist/Office <b>PVH</b>		Approved By	
Drilling Equipment/Method <b>Hurricane</b>		Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>99.89</b>	Top of Screen <b>84.89</b>
		Bottom of Screen <b>74.89</b>	Ground Water Surface/Date Measured <b>81.26 8/20/14</b>

Boring/Well Location Sketch Map



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	Bentonite	1" Blank		Topsoil			
				Sand, fine, brown, no stain, no odor			
5			SW			4	0
				Sand, clayey, brown, no stain, no odor			
10			SC			8	0
				Sand, coarse			
			SW				
				Sand and gravel, dry, no stain, no odor		12	0
15			GP				
	#10-20 Silica Sand	1" Screen		Sand, coarse, no stain, no odor		16	0
			SW	Water level 18.63'			
				wet			
20						20	0

# BORING/WELL CONSTRUCTION LOG

Page 2 of 2

Boring/Well No. <b>MW4</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>				
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>								
DEPTH (feet)	WELL CONSTRUCTION			LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
				GRAPHIC LOG	VISUAL DESCRIPTION			
					Sand, brown, wet, no stain, no odor			
				SW				
					Silt lens			
				SW				
25					TD 25'		24	0
30								
35								
40								
45								



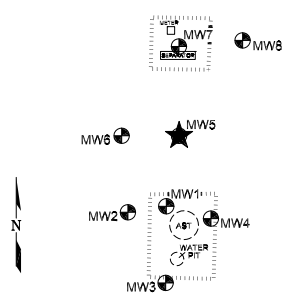


# BORING/WELL CONSTRUCTION LOG

Page 1 of 2

Boring/Well No. <b>MW5</b>	Total Depth <b>28'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>	
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>		Drilling Contractor/Driller <b>DrillPro</b>	
Geologist/Office <b>PVH</b>		Approved By	
Drilling Equipment/Method <b>Hurricane</b>		Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>99.68</b>	Top of Screen <b>82.68</b>
		Bottom of Screen <b>72.68</b>	Ground Water Surface/Date Measured <b>81.13 8/20/14</b>

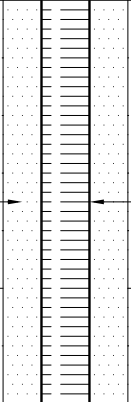


Boring/Well Location Sketch Map



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	Bentonite	1" Blank	GW	Roadbase			
				Sand, brown, no stain, no odor			
5			SW			4	0
			CL	Clay, sandy, firm			
			SC	Sand, clayey		8	0
10			SW	Sand, no stain, no odor			
			SM	Sand, silty		12	0
				Sand, coarse, no stain, no odor			
15			SW			16	0
	#10-20 Silica Sand	1" Screen		wet			
				Water level 18.55'			
20						20	0

# BORING/WELL CONSTRUCTION LOG

Page 2 of 2

Boring/Well No. <b>MW5</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>			
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>							
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
25			Sand, coarse, no stain, no odor			24 — 0	
			gray/black				
			Sand, silty				
30			Sand, coarse, dark gray and black				
			TD 28'				
35							
40							
45							

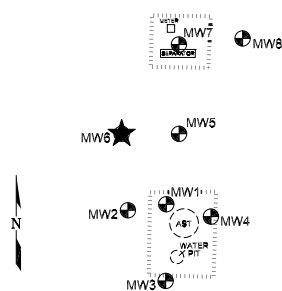


# BORING/WELL CONSTRUCTION LOG

Page **1** of **2**

Boring/Well No. <b>MW6</b>		Total Depth <b>25'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>	
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>			Drilling Contractor/Driller <b>DrillPro</b>	
Geologist/Office <b>PVH</b>			Approved By	
Drilling Equipment/Method <b>Hurricane</b>			Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>
Start/Finish Date <b>8/20/14</b>				
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>	
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>99.51</b>	Top of Screen <b>84.51</b>	Bottom of Screen <b>74.51</b>
		Ground Water Surface/Date Measured <b>81.21 8/20/14</b>		

Boring/Well Location Sketch Map



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	Bentonite	1" Blank	GW	Roadbase			
				Sand, brown, moist, no stain, no odor			
5			SW			4	0
			CL	Clay, sandy, firm			
			SC	Sand, clayey		8	0
10							
			SW	Sand, no stain, no odor		12	0
15	#10-20 Silica Sand	1" Screen	GP	Sand and gravel			
				Sand, no stain, no odor			
				brown		16	0
			SW				
				Water level 18.30'			
			GP	Sand and gravel, wet, no stain, no odor			
20						20	0

# BORING/WELL CONSTRUCTION LOG

Page 2 of 2

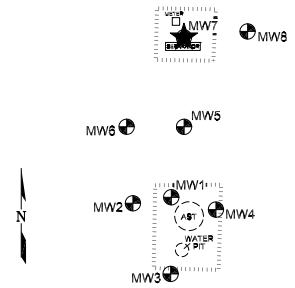
Boring/Well No. <b>MW6</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>			
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>							
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	#10-20 Silica Sand	1" Screen	GP	Sand and gravel, continued		24	0
25				TD 25'			
30							
35							
40							
45							

## BORING/WELL CONSTRUCTION LOG

Page **1** of **2**

Boring/Well No. <b>MW7</b>	Total Depth <b>25'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>	
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>		Drilling Contractor/Driller <b>DrillPro</b>	
Geologist/Office <b>PVH</b>		Approved By	
Drilling Equipment/Method <b>Hurricane</b>		Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>100.00</b>	Top of Screen <b>85.00</b>
		Bottom of Screen <b>75.00</b>	Ground Water Surface/Date Measured <b>81.00 8/20/14</b>

Boring/Well Location Sketch Map



DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	Bentonite	1" Blank	GW	Roadbase			
				Sand, brown, no stain, no odor			
5			SW			4	0
			CL	Clay, sandy			
			SC	Sand, clayey		8	0
10							
			SW	Sand, no stain, no odor		12	0
15	#10-20 Silica Sand	1" Screen	GP	Sand and gravel		16	0
			SW	Sand			
				wet, no stain, no odor			
				Water level 19.00'			
20			GP	Sand and gravel, wet, no stain, no odor		20	0

# BORING/WELL CONSTRUCTION LOG

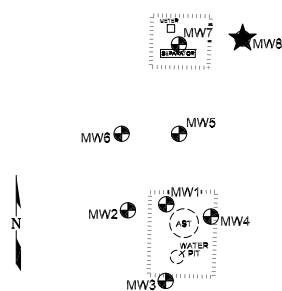
Page 2 of 2

Boring/Well No. <b>MW7</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>			
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>							
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	#10-20 Silica Sand	1" Screen	GP	Sand and gravel, continued		24	0
25				TD 25'			
30							
35							
40							
45							



# BORING/WELL CONSTRUCTION LOG

Boring/Well Location Sketch Map



Page **1** of **2**

Boring/Well No. <b>MW8</b>		Total Depth <b>25'</b>	Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>		
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>			Drilling Contractor/Driller <b>DrillPro</b>		
Geologist/Office <b>PVH</b>			Approved By		
Drilling Equipment/Method <b>Hurricane</b>			Size/Type of Bit <b>2.5" direct push</b>	Sampling Method <b>direct push</b>	Start/Finish Date <b>8/20/14</b>
Well Installed? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Casing Mtrl./Dia. <b>PVC/1"</b>	Screen: Type <b>slotted</b> Mtrl. <b>PVC</b> Length <b>10'</b> Dia. <b>1"</b> Slot Size <b>0.010"</b>		
Elevation of: (ft. above datum)	Ground Surface .	Top of Well Casing <b>99.29</b>	Top of Screen <b>84.29</b>	Bottom of Screen <b>74.29</b>	Ground Water Surface/Date Measured <b>80.96 8/20/14</b>

DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	Bentonite	1" Blank		Topsoil			
				Sand, fine, brown, moist, no stain, no odor			
5			SW			4	0
						8	0
10			SM	Sand, silty			
			SW	Sand, no stain, no odor		12	0
15	#10-20 Silica Sand	1" Screen	GP	Sand and gravel, no stain, no odor		16	0
				wet, brown, no stain, no odor Water level 18.33'			
20						20	0

# BORING/WELL CONSTRUCTION LOG

Page 2 of 2

Boring/Well No. <b>MW8</b>				Location <b>Homestake Oil Stevens 1 SW NW Sec 15, T4N, R66W Weld County, Colorado</b>			
Project No./Name <b>C014-027/Homestake Oil Stephens 1</b>							
DEPTH (feet)	WELL CONSTRUCTION		LITHOLOGY		Penetration Rate (blows/ft)	Sample Interval (feet)	PID Values (ppm)
			GRAPHIC LOG	VISUAL DESCRIPTION			
	#10-20 Silica Sand	1" Screen	GP	Sand and gravel, continued		24	0
25				TD 25'			
30							
35							
40							
45							



**APPENDIX B**

**SAMPLING PLAN**

## **SAMPLING METHODS AND PROCEDURES**

### **Water Level Measurements**

All ground water level measurements will be obtained using an electric measuring device, which indicates when a probe is in contact with ground water. Measurements will be obtained by lowering the device into the well until the water surface had been encountered, and by measuring the distance from the top of the inside riser pipe to the probe. All of the measurements will be recorded to the nearest 0.01 ft. To minimize cross-contamination, the water level indicator will be decontaminated with isopropyl alcohol and distilled water between each well.

### **Monitoring Well Sampling**

All monitoring wells were sampled from the “cleanest” to the “most contaminated” according to the protocols listed below.

#### **Field Protocol**

- Step 1            Measure water level in each well.
- Step 2            Purge each monitoring well by evacuating a minimum of three well bore volumes using a disposable polyethylene bailer.
- Step 3            Collect water samples using a disposable polyethylene bailer.
- Step 4            Cool samples to approximately 4°C for transportation.
- Step 5            Store water samples and transport to a specific laboratory, following all documentation and chain-of-custody procedures.

Upon completion of ground water sampling, a chain-of-custody log will be completed. Chain-of-custody records include the following information: project, project number, shipped by, shipped to, suspected hazard, sampling point, location, field identification number, date collected, sample type, number of containers, analysis required, and sampler's signature.

The chain-of-custody records will be shipped with the samples to the laboratory. Upon arrival at the laboratory the samples will be checked in and signed by the appropriate laboratory personnel. Laboratory identification numbers will be noted on the chain-of-custody record. Upon completion of the laboratory analysis, the completed chain-of-custody record will be returned to the project manager.

### **Analytical Methods**

The following list identifies the various chemical constituents and analytical methods which will be used for their quantification.

<u>Chemical Parameter</u>	<u>Method</u>
Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX)	EPA Method – 8260C

APPENDIX C

LABORATORY DOCUMENTATION

# Test Report



August 24, 2014

Client: Fremont Environmental

Project: Homestead Oil / Noble Stephens #1

Lab ID: 2002

Date Samples Received: 8/20/2014

Number of Samples: 17

Sample Condition: Samples arrived intact and in appropriate sample containers

Sample Temperature: Within acceptable range of 2-6° C, or as specified in EPA Method

The quality control procedures associated with the requested analyses were satisfactorily passed before the samples were run.

Thank you for allowing eAnalytics Laboratory to provide laboratory services for you.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Dieken".

Christopher Dieken  
Quality Assurance Manager

A handwritten signature in black ink, appearing to read "Todd Rhea".

Todd Rhea  
Laboratory Manager

**eAnalytics Laboratory**


1767 Rocky Mountain Avenue Loveland CO 80538

## Chain of Custody

# eANALYTICS

## L A B O R A T O R Y

Chain of Custody Form

				1767 Rocky Mountain Avenue Loveland CO 80538 Phone: (970) 667-6975 Fax: (970) 669-0941 www.eAnalyticsLab.com					
CLIENT INFORMATION				ANALYSIS INFORMATION					
(*New Clients please fill out completely)				(Select analysis by checking box on corresponding sample line)					
Company: Fremont Environmental				Number of Containers Matrix: (S) Soil (W) Water (V) Vapor (O) Other	Other Analysis:				
Project: <u>HOMESTEAD OIL / NOBLE STEPHENS #1</u>									
Project Manager: Paul Henehan									
Sampler:									
Phone/Email: 303-956-8714									
Address: P.O. Box 1289 Wellington CO 80549									
Lab ID	Sample Name	Sampling Date/Time		BTEX (EPA 8260)	BTEX Naphthalene (EPA 8260)	TPH - GRO/DRO (EPA 8260/8015)	SAR (US Dept of Ag Method 20B)	EC (US Dept of Ag Method 3)	pH (EPA 9045D)
1	MW-1	8/20/14	2W	✓					
2	MW-2			✓					
3	MW-3			✓					
4	MW-4			✓					
5	MW-5			✓					
6	MW-6			✓					
7	MW-7			✓					
8	MW-8		2W	✓					
9	MW-1 16 FT		1S		✓	✓			
10	MW-1 28 FT								
11	MW-2 16 FT								
12	MW-3 16 FT								
13	MW-4 16 FT								
14	MW-5 16 FT								
15	MW-6 16 FT		1S		✓	✓			
Comments: <u>BILL FREMONT</u>									
<b>Turnaround Time (Business Days)</b> TAT begins when sample is received by eANALYTICS <input checked="" type="radio"/> Normal (5-10 Days) <input type="radio"/> 3 Day (1.25x) <input type="radio"/> 2 Day (1.5x) <input type="radio"/> 1 Day (2x) <input type="radio"/> Next Bus Morning (Noble Pricing)				<b>Record of Custody</b> Relinquished by: _____ Date: _____ Company: FREMONT ENVIRONMENTAL Received by: <u>[Signature]</u> Date: <u>8/20/14</u> Company: _____ Relinquished by: _____ Date: _____ Company: _____ Received by: <u>[Signature]</u> Date: <u>8/20/14</u> Company: <u>eANALYTICS</u>					
<b>For eANALYTICS Use</b> Samples Received Intact <input checked="" type="radio"/> Yes <input type="radio"/> No Received Within Temperature Range (2-6°C) <input checked="" type="radio"/> Yes <input type="radio"/> No Sample Preservative <input checked="" type="radio"/> None <input type="radio"/> Acid <input type="radio"/> Other									

WO # 2002

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Page 1 of 2

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## Chain of Custody

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LABORATORY

Chain of Custody Form

[illegible]

WO # 2002

**eANALYTICS: Environmental testing made Easy**

Page 2 of 2

## eAnalytics Laboratory

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The results contained within this report relate only to the items analyzed

# eANALYTICS

## LABORATORY

Client: Fremont Environmental Lab ID: 2002

Project: Homestead Oil / Noble Stephens #1

Analysis: Volatile Organics Method: EPA8260  
TPH EPA8260/8015

Sample Name	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Total Xylenes mg/kg	Naph- thalene mg/kg	TPH GRO C6-C10 mg/kg	TPH DRO C10-C28 mg/kg	Date Sampled	Date Analyzed	Lab ID
MW-1 16 Ft	< 0.01	<b>0.053</b>	<b>0.790</b>	<b>24.0</b>	<b>2.49</b>	<b>884</b>	<b>734</b>	08/20/14	08/20/14	2002 9
MW-1 28 Ft	< 0.01	< 0.01	<b>0.037</b>	<b>0.191</b>	<b>0.063</b>	< 50	<b>56.2</b>	08/20/14	08/20/14	2002 10
MW-2 16 Ft	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	08/20/14	2002 11
MW-3 16 Ft	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	08/20/14	2002 12
MW-4 16 Ft	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	08/20/14	2002 13
MW-5 16 Ft	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	08/20/14	2002 14
MW-6 16 Ft	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	08/20/14	2002 15
MW-7 16 Ft	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	08/20/14	2002 16
MW-8 16 Ft	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	08/20/14	2002 17

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**e**ANALYTICS  
LABORATORY

Client: Fremont Environmental Lab ID: 2002

Project: Homestead Oil / Noble Stephens #1

Analysis: Volatile Organics Method: EPA8260

Sample Name	Benzene ug/L	Toluene ug/L	Ethyl- benzene ug/L	Total Xylenes ug/L	Date Sampled	Date Analyzed	Lab ID
MW-1	2616	3751	4182	96434	08/20/14	08/20/14	2002 1
MW-2	< 1.0	< 1.0	< 1.0	< 1.0	08/20/14	08/20/14	2002 2
MW-3	8.1	< 1.0	< 1.0	< 1.0	08/20/14	08/20/14	2002 3
MW-4	< 1.0	< 1.0	< 1.0	< 1.0	08/20/14	08/20/14	2002 4
MW-5	1755	3134	454	10854	08/20/14	08/20/14	2002 5
MW-6	< 1.0	< 1.0	< 1.0	< 1.0	08/20/14	08/20/14	2002 6
MW-7	< 1.0	< 1.0	< 1.0	< 1.0	08/20/14	08/20/14	2002 7
MW-8	< 1.0	< 1.0	< 1.0	< 1.0	08/20/14	08/20/14	2002 8

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**e**ANALYTICS  
LABORATORY

Client: Fremont Environmental

Lab ID: 2002

Project: Homestead Oil / Noble Stephens #1

Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
MW-1 16 Ft	97	90	95	95	08/20/14	08/20/14	2002 9
MW-1 28 Ft	105	109	86	109	08/20/14	08/20/14	2002 10
MW-2 16 Ft	87	86	90	110	08/20/14	08/20/14	2002 11
MW-3 16 Ft	86	105	105	100	08/20/14	08/20/14	2002 12
MW-4 16 Ft	107	105	105	109	08/20/14	08/20/14	2002 13
MW-5 16 Ft	95	87	88	111	08/20/14	08/20/14	2002 14
MW-6 16 Ft	103	89	88	98	08/20/14	08/20/14	2002 15
MW-7 16 Ft	111	110	106	100	08/20/14	08/20/14	2002 16
MW-8 16 Ft	102	94	90	107	08/20/14	08/20/14	2002 17

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**e**ANALYTICS  
L A B O R A T O R Y

Client: Fremont Environmental

Lab ID: 2002

Project: Homestead Oil / Noble Stephens #1

Method: EPA8260

Sample Name	Dibromo- fluoromethane % Recovery	1,2 Dichloro- ethane-D4 % Recovery	Toluene-D8 % Recovery	Bromo- fluorobenzene % Recovery	Date Sampled	Date Analyzed	Lab ID
MW-1	91	87	102	99	08/20/14	08/20/14	2002 1
MW-2	105	90	101	108	08/20/14	08/20/14	2002 2
MW-3	93	98	107	100	08/20/14	08/20/14	2002 3
MW-4	93	87	107	99	08/20/14	08/20/14	2002 4
MW-5	99	108	98	105	08/20/14	08/20/14	2002 5
MW-6	101	97	108	92	08/20/14	08/20/14	2002 6
MW-7	106	86	94	106	08/20/14	08/20/14	2002 7
MW-8	86	100	103	109	08/20/14	08/20/14	2002 8

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# eANALYTICS

## LABORATORY

Client: Fremont Environmental

Lab ID: 2002

Project: Homestead Oil / Noble Stephens #1

Analysis: Volatile Organics  
TPHMethod: EPA8260  
EPA8260/8015

Sample Name	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Naph- thalene	TPH GRO C6-C10	TPH DRO C10-C28	Date Analyzed	Lab ID		
	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec	% Rec				
Laboratory Control Sample	94	90	93	92	103	101	92	08/20/14	LCS	2002	1
(70-130%)											
Method Blank	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 50	< 50	08/20/14	MB	2002	1
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg				

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**e**ANALYTICS  
LABORATORY

Client: Fremont Environmental

Lab ID: 2002

Project: Homestead Oil / Noble Stephens #1

Analysis: Volatile Organics

Method: EPA8260

Sample Name	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Date Analyzed	Lab ID		
	% Rec	% Rec	% Rec	% Rec				
Laboratory Control Sample	90	93	97	99	08/20/14	LCS	2002	1
(70-130%)								
Method Blank	< 1.0	< 1.0	< 1.0	< 1.0	08/20/14	MB	2002	1
	ug/L	ug/L	ug/L	ug/L				

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