## ENVIRONMENTAL PLUS, INC.

2100 Ave 'O' P.O. Box 1558 Eunice, NM 88231 ddominguezepi@gmail.com Office: (575) 394-3481 Fax: (575) 394-2601



### Site Characterization and Work Plan

Legacy, L.P. LMPSU #286 Flowline Lea County, New Mexico Unit Letter "H", Section 29, Township 22 South, Range 37 East Latitude 32.363983 North, Longitude 103.176722 West NMOCD Reference # 1RP-4166

Prepared For:

Legacy, L.P. P.O. Box 10848 Midland, Texas 79702

Prepared By:

Environmental Plus, Inc. 2100 Ave 'O' Eunice, NM 88231

July 2017

Daniel Dominguez Project Manager



The following *Site Characterization and Work Plan* serves as a condensed update on field activities undertaken and proposed actions for the afore referenced Site.

### **Background:**

The site is located in Unit Letter H (SE <sup>1</sup>/<sub>4</sub> NE <sup>1</sup>/<sub>4</sub>), Section 29, Township 22 South, Range 37 East, approximately four miles south of Eunice, in Lea County, New Mexico. The property is owned by the State of New Mexico.

The release site is located in the pasture just off a lease road; latitude 32.363983 North, longitude 103.176722 West. Area Map, Site Location Map, and Sample/Site Map are included as Figure 1, Figure 2, and Figure 3, respectively. The Initial NMOCD Form C-141 indicate the release occurred on January 17, 2014 when approximately 100 barrels of oil were released when a flowline sidewall split releasing the fluid to pasture. A vacuum truck was dispatched to the site and recovered approximately 70 barrels, resulting in a net loss of 30 barrels. The visually stained area covers approximately 2,200 square feet of pasture. The Initial NMOCD Form C-141 is included as Attachment IV.

### **NMOCD Site Classification:**

A search for water wells was completed utilizing the New Mexico Office of the State Engineer's (NMOSE) website. There are six wells located in the area surrounding the release site (reference *Table 1*). Also, no wells (domestic, agriculture or public) and no bodies of surface water exist within a 1,000-foot radius of the release site (reference *Figure 2*). The NMOSE database indicates average depth to water is approximately 62 feet below ground surface (bgs) within a 2,000-meter radius (reference *Attachment II*).

Utilizing this information, the NMOCD guidelines indicate the LMPSU #286 Flowline release site to have a ranking score of ten. Based on this score, the NMOCD Recommended Remedial Action Levels (RRALs) for delineation at this Site were determined as follows: Benzene – 10 mg/Kg, BTEX – 50 mg/Kg, TPH – 1,000 mg/Kg, and Chloride – 600 mg/Kg.

The fluid spread to the west of the flowline approximately 125' into pasture area consisting of approximately two feet of topsoil atop caliche (reference *Figure 3*).

### **Delineation Progress:**

On January 22, 2014 EPI personnel mobilized on site to collect soil samples to determine the vertical extent of contamination. A total of ten soil samples were collected from seven sample locations; TS1 - TS7. All ten samples were field tested for chlorides. Field testing indicates elevated chlorides between three and sixteen feet bgs (reference *Figure 3* and *Table 2*).

On January 23, 2014 EPI personnel collected soil samples for laboratory analysis. A total of four soil samples were collected from four sample locations; SP1 - SP3, background. All samples were sent to Cardinal Labs in Hobbs, New Mexico, for testing. Laboratory analytical results indicate that Benzene, BTEX, TPH, and Chloride concentrations at depth of sample collection, are below NMOCD RRALs (reference *Figure 3* and *Table 2*).



Portions of select soil samples were field tested for organic vapors and chloride concentrations. Soil samples collected for field testing of organic vapors were placed in self-sealing polyethylene bags and allowed to equilibrate to ~70° F. Field testing of organic vapors utilized a Mini-Rae<sup>TM</sup> Photoionization Detector (PID) equipped with a 10.6 electron-volt (eV) calibrated for benzene response. Chloride concentrations were determined via use of a LaMotte Chloride Kit (Titration Method).

Soil samples designated for laboratory analyses were collected into laboratory provided glass containers, labeled and inserted into self-sealing polyethylene bags, placed in a cooler, chilled and transported to an independent laboratory for quantification of contaminant concentrations under Chain-of-Custody protocol.

In January 2014, in conjunction with sampling activities, the release area was excavated to approximately four feet bgs at the west end and approximately eight feet bgs at the east end. All contaminated soil was hauled to a state approved disposal facility.

### **Proposed Actions:**

Taking into consideration the age of the release, the open excavation, and field testing indicating elevated chlorides, EPI proposes to install a twenty-mil poly-ethylene liner in the excavation floor then backfill with clean soil to finish grade. As the depth of the excavation varies along the length of the excavation, caliche will be used as backfill to within three feet of ground surface, at which point topsoil will be used as backfill to finish grade.

Top soil, and caliche will be free of deleterious material or rocks or large clumps. Backfilling will continue until the entire excavation is closed. Upon completion of backfill activities, the entire disturbed area will be contoured to blend with existing pasture area and protected against wind/water erosion. The disturbed pasture area will also be seeded and watered.

### **Revegetation Plan:**

In an attempt to achieve native plant cover and diversity levels equal to or exceeding the natural potential levels in undisturbed soils adjacent to the release area, the disturbed pasture area will be seeded with BLM mixture #2 at a rate of 22 lbs per acre. Seed will be applied to the area utilizing a drill seeder in early spring 2018 when ground conditions are more conducive to vegetative growth. After seeding has been competed the area will be thoroughly watered. After a period of three months the area will be examined for vegetative growth and re-seeded if no growth has occurred.

### **Noxious Weed Management Plan:**

In an effort to prevent the spread of noxious weeds such as African Rue, Siberian Elm, Jointed Goatgrass, Russian Olive, Camelthorn, Saltcedar, Starthistle varieties, Hoary Cress and Russian Knapweed, the area will be confirmed to be clear of any noxious weeds. If any are located they will be removed by hand and the area treated with an appropriate herbicide. Applied seed mix will contain no primary or secondary noxious weeds and will either be certified or registered seed. After a period of three months the area will be examined for noxious weed growth and retreated if any growth has occurred.



Following completion of NMOCD and NMSLO approved Proposed Actions, EPI will provide a detailed *Final Closure Report* to Legacy, L.P., NMOCD, and NMSLO personnel. Legacy, L.P. and EPI personnel would welcome an opportunity to briefly discuss the *Work Plan* at your earliest convenience.

Should you have any questions or concerns please feel free to contact me at (575) 394-3481 or via e-mail at ddominguezepi@gmail.com or Mr. Steven Dittman at (432) 312-4757 or via e-mail at sdittman@legacylp.com. All official communication should be addressed to:

Mr. Steven Dittman Legacy, L.P. P.O. Box 10848 Midalnd, TX 79702

Sincerely,

ENVIRONMENTAL PLUS, INC.

Daniel Dominguez Environmental Consultant

cc: Olivia Yu, Environmental Specialist – NMOCD District 1, Hobbs Amber Groves, Remediation Specialist – NMSLO, Hobbs, NM Steven Dittman, Production Tech – Legacy, L.P. File

Encl.: Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Sample/Site Map
Table 1 – Well Data
Table 2 – Summary of Soil Sample Field Testing and Laboratory Analytical Results
Attachment I – Photographs
Attachment II – NMOSE Average Depth to Groundwater
Attachment III – Laboratory Analytical Results
Attachment IV – Copy of Initial NMOCD Form C-141

**FIGURES** 







### **TABLES**

# **TABLE 1**

# Well Data

# Legacy, L.P. - LMPSU #286 Flowline

Ref #	Well Number	Use	Use Diversion <sup>A</sup>	Оwner	q64 c	116 q	4 S	sc Tws	) Rng	Easting	q64 q16 q4 Sec Twsp Rng Easting Northing Distance <sup>B</sup>	Distance <sup>B</sup>	Date	Surface	Depth to
													Measured Elevation Water (ft bgs)	Elevation	(ft bgs)
1	USGS 1				3	1	2 2	8 22S	37E	671896	1 2 28 22S 37E 671896 3581961	446	06-Jan-16	3,342	61
2	USGS 2				3	2	3 2	28 22S	37E	672194	3581381	1,076	18-Mar-81	3,352	69
3	CP 00396	COM		10 E.F. KING	1	2 4	1 2	8 22S	4 28 22S 37E	672886	672886 3582037	1,354	1,354 31-Dec-40	3,345	59
4	USGS 3				4	2	1 2	8 22S	37E	672974	28 22S 37E 672974 3581640	1,547	28-Oct-65	3,346	59
5	CP 00503	DOL	3	TOMMY HENDERSON		4	4 21	1 22S	37E	672965	672965 3583144	1,680	15-Sep-72	3,346	65
9	USGS 4				2	2	3.	3 22S	37E	672877	2 3 33 22S 37E 672877 3581158	1,715	14-Feb-96	3,346	73

Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr\_RegisServlet1) and USGS Database  $^{A}$  = In acre feet per annum  $^{B}$  = In meters  $^{C}$  = Elevation interpolated from Google Earth based on referenced location.

 $^{B}$  = In meters

COM = Commercial

DOL = 72-12-1 Domestic and Livestock watering quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are smallest to biggest

**TABLE 2** 

# Summary of Soil Sample Field Testing and Laboratory Analytical Results

Legacy, L.P. - LMPSU #286 Flowline

Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	Total TPH (mg/Kg)	Chloride (mg/Kg)
TS1	4	In Situ	22-Jan-14	-	200	-						-	-	:
TS2	3	In Situ	22-Jan-14	-	1,200	1	-		-	1	-	1	1	1
TS3	4	In Situ	22-Jan-14	-	800	1	1		-	1	-	1	-	1
TS4	5	In Situ	22-Jan-14	-	340	1	-			-	-	-	-	1
TS5	6	In Situ	22-Jan-14	-	1,600	1	-		-	1	-	1	1	1
	8	In Situ	22-Jan-14	-	1,200	1	-			-	-	-	:	:
TS6	13	In Situ	22-Jan-14	-	1,400	-	-			-	-	-	-	1
	15	In Situ	22-Jan-14	1	2,300	ł	ł	ł	1	1	ł	1	1	1
LoT	12	In Situ	22-Jan-14	-	1,400	1	-		-	-	-	1	1	1
161	16	In Situ	22-Jan-14	1	360	1	ł	ł	ł	!	1	1	!	!
Background	5	In Situ	23-Jan-14	1	200	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	11.1	11.1	<16.0
SP 1	7	In Situ	23-Jan-14	-	400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	592
SP 2	8	In Situ	23-Jan-14	1	300	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	96
SP 3	16	In Situ	23-Jan-14	-	360	<0.050	<0.050	<0.050	< 0.150	<0.300	<10.0	<10.0	<20.0	384
NMOCD Recommended Remedial Action Levels	nmende	d Remedial ∉	Action Levels	100		10				50			1,000	600

- - = Not Analyzed

### ATTACHMENTS

ATTACHMENT I Photographs



Photograph #1- Looking across release area.



Photograph #2- Looking across release area toward release point.



Photograph #3- Looking across release area.



Photograph #4- Looking across release area.



Photograph #5- Looking across excavated area.



Photograph #6- Looking across excavated area.





Photograph #8- Current state of excavation

ATTACHMENT II NMOSE Average Depth to Groundwater



### New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a	(R=POD has been replaced, O=orphaned, C=the file is						3=SW 4=SE		atoro)			
water right file.)	closed) POD	(qu	anter	s an	e smalle	si io iai	gest) (IV	AD83 UTM in me	eters)	(I	In feet)	
	Sub-		Q		_	_	¥	Y	-	-	Depth	
POD Number CP 00395 POD1	Code basin Co CP				28 22S		<b>X</b> 672282	Y 3581822* 😜	Distance 847	<b>well</b> 90	water	Column
CP 00149 POD1	CP	LE			29 22S		670568	3582296* 🥌	980			
CP 00396 POD1	СР	LE 1	2	4	28 22S	37E	672886	3582037* 🌍	1354	100	59	41
CP 01657 POD1	CP	LE 2	2 2	4	28 22S	37E	673077	3582073 🌍	1539	123		
CP 00503	CP	LE	4	4	21 22S	37E	672965	3583144* 🌍	1680	115	65	50
CP 00911	CP	LE 4	4	4	21 22S	37E	673064	3583043* 🌍	1715	153		
CP 00243 POD1	CP	LE 3	3	1	27 22S	37E	673281	3582246* 🌍	1734	106		
CP 00231 POD1	CP	LE 3	8 1	3	27 22S	37E	673288	3581844* 🌍	1786	145		
CP 00234 POD1	CP	LE 3	8 1	3	27 22S	37E	673288	3581844* 🌍	1786	135		
CP 00081 POD1	CP	LE 2	2 4	4	21 22S	37E	673064	3583243* 🌍	1816	120		
CP 01101 POD1	CP	LE 2	2 4	4	21 22S	37E	673064	3583281 🌍	1838	142		
CP 00247 POD1	CP	LE 1	3	3	27 22S	37E	673295	3581642* 🌍	1848	100		
CP 01657 POD2	CP	LE 2	2 2	2	33 22S	37E	673162	3581337 🌍	1851	75		
CP 00257 POD1	CP	LE 3	3	3	22 22S	37E	673266	3583050* 🌍	1899	136		
CP 00232 POD1	CP	LE 4	- 1	3	27 22S	37E	673488	3581844* 🌍	1981	150		
CP 00233 POD1	CP	LE 4	1	3	27 22S	37E	673488	3581844* 🌍	1981	182		
CP 01157 POD1	CP	LE 1	1	1	34 22S	37E	673325	3581348 🌍	1990	143		
CP 00256 POD1	R CP	LE 1	3	3	22 22S	37E	673266	3583250* 🌍	1992	146		
								Avera	ge Depth to	Water:	62 1	feet
									Minimum	Depth:	59 f	feet
									Maximum	Depth:	65 f	feet
Record Count: 18												
UTMNAD83 Radius	Search (in meters	s):										
Easting (V): 6715	. 17	N	orth.	ina	(V)· 25	00040		Padius	2000			

Easting (X): 671547

Northing (Y): 3582243

Radius: 2000

### \*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

ATTACHMENT III Laboratory Analytical Results



January 30, 2014

Daniel Dominguez Environmental Plus, Inc. P.O. Box 1558 Eunice, NM 88231

RE: LMPSU #286 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 01/23/14 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Environmental Plus, Inc. Daniel Dominguez P.O. Box 1558 Eunice NM, 88231 Fax To: (505) 394-2601

Received:	01/23/2014	Sampling Date:	01/23/2014
Reported:	01/30/2014	Sampling Type:	Soil
Project Name:	LMPSU #286 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-H SEC. 29, T22S, R37E		

### Sample ID: BACKGROUND (5') (H400226-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/29/2014	ND	2.32	116	2.00	2.43	
Toluene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	2.06	
Ethylbenzene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	1.91	
Total Xylenes*	<0.150	0.150	01/29/2014	ND	6.59	110	6.00	1.55	
Total BTEX	<0.300	0.300	01/29/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/29/2014	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2014	ND	185	92.5	200	0.200	
DRO >C10-C28	11.1	10.0	01/27/2014	ND	177	88.3	200	0.787	
Surrogate: 1-Chlorooctane	92.9 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	<i>93.7 9</i>	63.6-15	4						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Environmental Plus, Inc. Daniel Dominguez P.O. Box 1558 Eunice NM, 88231 Fax To: (505) 394-2601

Received:	01/23/2014	Sampling Date:	01/23/2014
Reported:	01/30/2014	Sampling Type:	Soil
Project Name:	LMPSU #286 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-H SEC. 29, T22S, R37E		

### Sample ID: SP 1 (7') (H400226-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/29/2014	ND	2.32	116	2.00	2.43	
Toluene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	2.06	
Ethylbenzene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	1.91	
Total Xylenes*	<0.150	0.150	01/29/2014	ND	6.59	110	6.00	1.55	
Total BTEX	<0.300	0.300	01/29/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	01/29/2014	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2014	ND	185	92.5	200	0.200	
DRO >C10-C28	<10.0	10.0	01/27/2014	ND	177	88.3	200	0.787	
Surrogate: 1-Chlorooctane	87.4 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	88.0 %	63.6-15	4						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Environmental Plus, Inc. Daniel Dominguez P.O. Box 1558 Eunice NM, 88231 Fax To: (505) 394-2601

Received:	01/23/2014	Sampling Date:	01/23/2014
Reported:	01/30/2014	Sampling Type:	Soil
Project Name:	LMPSU #286 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-H SEC. 29, T22S, R37E		

### Sample ID: SP 2 (8') (H400226-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/29/2014	ND	2.32	116	2.00	2.43	
Toluene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	2.06	
Ethylbenzene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	1.91	
Total Xylenes*	<0.150	0.150	01/29/2014	ND	6.59	110	6.00	1.55	
Total BTEX	<0.300	0.300	01/29/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/29/2014	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2014	ND	185	92.5	200	0.200	
DRO >C10-C28	<10.0	10.0	01/27/2014	ND	177	88.3	200	0.787	
Surrogate: 1-Chlorooctane	87.8 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	94.1 9	63.6-15	4						

### **Cardinal Laboratories**

### \*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Environmental Plus, Inc. Daniel Dominguez P.O. Box 1558 Eunice NM, 88231 Fax To: (505) 394-2601

Received:	01/23/2014	Sampling Date:	01/23/2014
Reported:	01/30/2014	Sampling Type:	Soil
Project Name:	LMPSU #286 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-H SEC. 29, T22S, R37E		

### Sample ID: SP 3 (16') (H400226-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/29/2014	ND	2.32	116	2.00	2.43	
Toluene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	2.06	
Ethylbenzene*	<0.050	0.050	01/29/2014	ND	2.26	113	2.00	1.91	
Total Xylenes*	<0.150	0.150	01/29/2014	ND	6.59	110	6.00	1.55	
Total BTEX	<0.300	0.300	01/29/2014	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	01/29/2014	ND	400	100	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2014	ND	185	92.5	200	0.200	
DRO >C10-C28	<10.0	10.0	01/27/2014	ND	177	88.3	200	0.787	
Surrogate: 1-Chlorooctane	91.7 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	90.8 9	63.6-15	4						

### Cardinal Laboratories

\*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

- ND
   Analyte NOT DETECTED at or above the reporting limit

   RPD
   Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

### Cardinal Laboratories

### \*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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ATTACHMENT IV Copy of Initial NMOCD Form C-141 District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

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State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

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Release Notification and Corrective Action										
OPERATOR						Initial Report 🗌 Final Report				
						Contact: Greg Skiles				
						<b>Telephone No.:</b> (432) 528 – 4014				
Facility Name: LMPSU #286 Flowline         F						Facility Type: Flowline				
Surface Owner: State of New Mexico Mineral Own						er: API:				
LOCATION OF RELEASE										
						rth/South Line Feet from the		East/West Lin	e County Lea	
E - 28 - 22 - 37       Latitude: N 32° 21' 50.01" Longitude: W 103° 10' 35.76"         36 · 625 · 16494       NATURE OF RELEASE										
i introle of						KELEASE           Volume of Release: 100 bbls         Volume Recovered: 70 bbls				
Source of Release: flow-line						Date and Hou	r of Occurrence:	Date and H	Date and Hour of Discovery:	
Was Immediate Notice Given?						1/17/14 1/17/14 If YES, To Whom? Geoff Leking				
By Whom? Greg Skiles						Date and Hour: 1/21/14				
Was a Watercourse Reached?						If YES, Volume Impacting the Watercourse: Not Applicable				
Depth to Water. ~70 ft bgs										
If a Watercourse was Impacted, Describe Fully.* Not Applicable										
Describe Cause of Problem and Remedial Action Taken.* Approximately 100 bbls of oil were released when the sidewall of a flow-line split. There was approximately 70 bbls recovered. An Emergency Response Team arrived at the release area and began continuous abatement of the impacted area. Visibly stained soil was excavated and hauled away for disposal at a state approved facility.										
Describe Area Affected and Cleanup Action Taken.* Approximately 2,200 square feet of surface area was impacted by the release. Soil samples will be collected from release area and submitted to Cardinal Laboratories for testing. Upon receipt of laboratory analytical data from soil samples collected during delineation operations, EPI will prepare and present a Remediation Proposal for approval.										
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to contain surface water, human health or the environment. In addition, NMOCD accep										
for compliance with any other federal, state, or local laws and/or regulations.										
Signature: Jun Philes						APPROVED				
Printed Name: Greg Skiles						Арј				
Title: Production Foreman						App 2/8/14 Expiration Date:				
E-mail Address: gskiles@legacylp.com						Conditions of A	pproval:		Attached	
Date: //2/14 Phone: (432) 528-4014										
* Attach Ad	ditional	Sheets If	Necess	ary					(RP 4166	