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Remediation Activities and Closure Report

State CF No 5 |30-005-60304| 2RP-3648

Talon Project No. 701047.162.01

Prepared For:

Legacy Reserves Operating, LP
303 W. Wall St. Ste. 1300
Midland, TX 79701

Prepared By:

Sheldon Hitchcock
Talon/LPE
408 West Texas
Artesia, New Mexico 88210

June 29, 2016

Mr. Mike Bratcher
NMOCD District 2
811 S. 1st Street
Artesia, NM 88210

Subject: Remediation Activities and Closure Report
Legacy Reserves Operating, LP
State CF No. 5 Battery
API# 30-005-60304 * 2RP-3648

Dear Mr. Bratcher,

Legacy Reserves Operating, LP (Legacy) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The incident description, soil sampling results, remediation activities and closure request are submitted herein.

Site Information

The State CF No. 5 Battery is located approximately twenty-four (24) miles east of Roswell, New Mexico. The legal location for this release is Unit Letter K, Section 13, Township 11 South and Range 27 East in Chaves County, New Mexico. More specifically the latitude and longitude for the release are 33.363369 North and -104.1924744 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Simona fine sandy loam. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is comprised of eolian sands. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

According to the Chevron Texaco ground water trend map, the ground water in this area is 100-feet below ground surface (BGS). See [Appendix II](#) for referenced ground water data.

Therefore the ranking for this site is a **0** based on the following:

Depth to ground water	> 100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH and 1,000 mg/kg for total chlorides.

Incident Description and Initial Remedial Actions

The horizontal pump and the high-level alarm failed causing the tank to overflow. Approximately 500 barrels were released into the lined containment. An estimated 3-4 barrels breached the containment and flowed approximately 500-feet into the pasture. A vacuum truck was called to the location to recover the free standing fluids.

On April 6, 2016, Talon mobilized personnel to begin the preliminary site assessment and to collect initial soil samples from the impacted area with a hand auger to a depth of 0.5 feet deep, where refusal was encountered.

Talon returned to the site with a backhoe was then mobilized for further vertical delineation of the impacted area. Vertical delineation sampling was carried out April 19, 2016. Laboratory results are summarized below.

Laboratory Results

See [Appendix V](#) for complete report of laboratory results.

April 13, 2016

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0'	0.317	48	81.3	8460
Refusal	0.5'	3.00	80	365	8130

April 26, 2015

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	2'	5.89	--	165	2400
	3'	6.7	--	427	6440
	4'	<0.300	--	<10	20.3
	5'	<0.300	--	<10	<10
	6'	<0.300	--	<10	<10
	9'	<0.300	--	<10	297
	10'	<0.300	--	<10	<10
	11'	<0.300	--	<10	509
S-2	0'	<0.300	--	<100	32600
	1'	<0.300	--	<10	2240
	2'	<0.300	--	<10	1400
	3'	<0.300	--	<10	11.8
	4'	<0.300	--	<10	<10
	5'	<0.300	--	<10	<10
	7'	<0.300	--	<10	<10
	9'	<0.300	--	<10	<10
	11'	<0.300	--	<10	122
	12'	<0.300	--	<10	26.9

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-3	0'	<0.300	--	<100	11600
	1'	3.23	--	78.4	2960
	2'	3.61	--	108	3120
	3'	<0.300	--	<10	10.9
	4'	<0.300	--	<10	<10
	5'	<0.300	--	<10	<10
	7'	<0.300	--	<10	<10
	9'	<0.300	--	<10	31
	11'	<0.300	--	<10	64.2
	12'	<0.300	--	<10	52

--Analyte Not Tested

Confirmation Sidewall Samples

Sample ID	Depth (feet)	BTEX (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-4	1	ND	ND	ND
S-5	1	ND	ND	ND
S-6	1	ND	ND	ND
S-7	1	ND	ND	ND
S-8	1	ND	ND	ND
S-9	1	ND	ND	ND
S-10	1	ND	ND	ND

Remedial Actions Taken

- The impacted area in the vicinity of sample location S-1 was excavated to a depth of 3-feet BGS.
- The impacted area in the vicinity of sample locations S-2 and S-3 were excavated to a depth of 1-foot BGS.
- Confirmation soil samples were taken from the side walls of the excavation to insure all of the impacted soil was removed.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- After inspection of the liner it was determined that the liner was in good condition. The battery was flushed with fresh water to remove the remaining oil and treated with Micro-Blaze (a bio remediation agent) to degrade any oil staining on the gravel.
- The excavation was backfilled with top soil and seeded with BLM #2 LPC seed mixture per the New Mexico State Land Office (NMSLO) approved revegetation plan.
- Per the NMSLO approved revegetation plan the site will be monitored on a quarterly basis until revegetation approximating natural coverage is achieved. If revegetation is abnormally slow (taking into account precipitation levels) further soil amendments may be added after consultation with NMSLO.

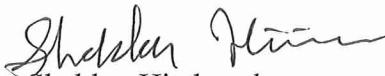
Closure

On behalf of Legacy Reserves Operating, LP we respectfully request that no further actions be required and that closure with regard to this release be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

TALON/LPE



Sheldon Hitchcock
Project Manager



David J. Adkins
District Manager

Attachments:

- Appendix I Site Plan
- Appendix II Groundwater Data
- Appendix III Initial C-141 & Final C-141
- Appendix IV Seed Label
- Appendix V Laboratory Results

APPENDIX I

SITE PLAN

Legacy State CF #5

State CF Battery



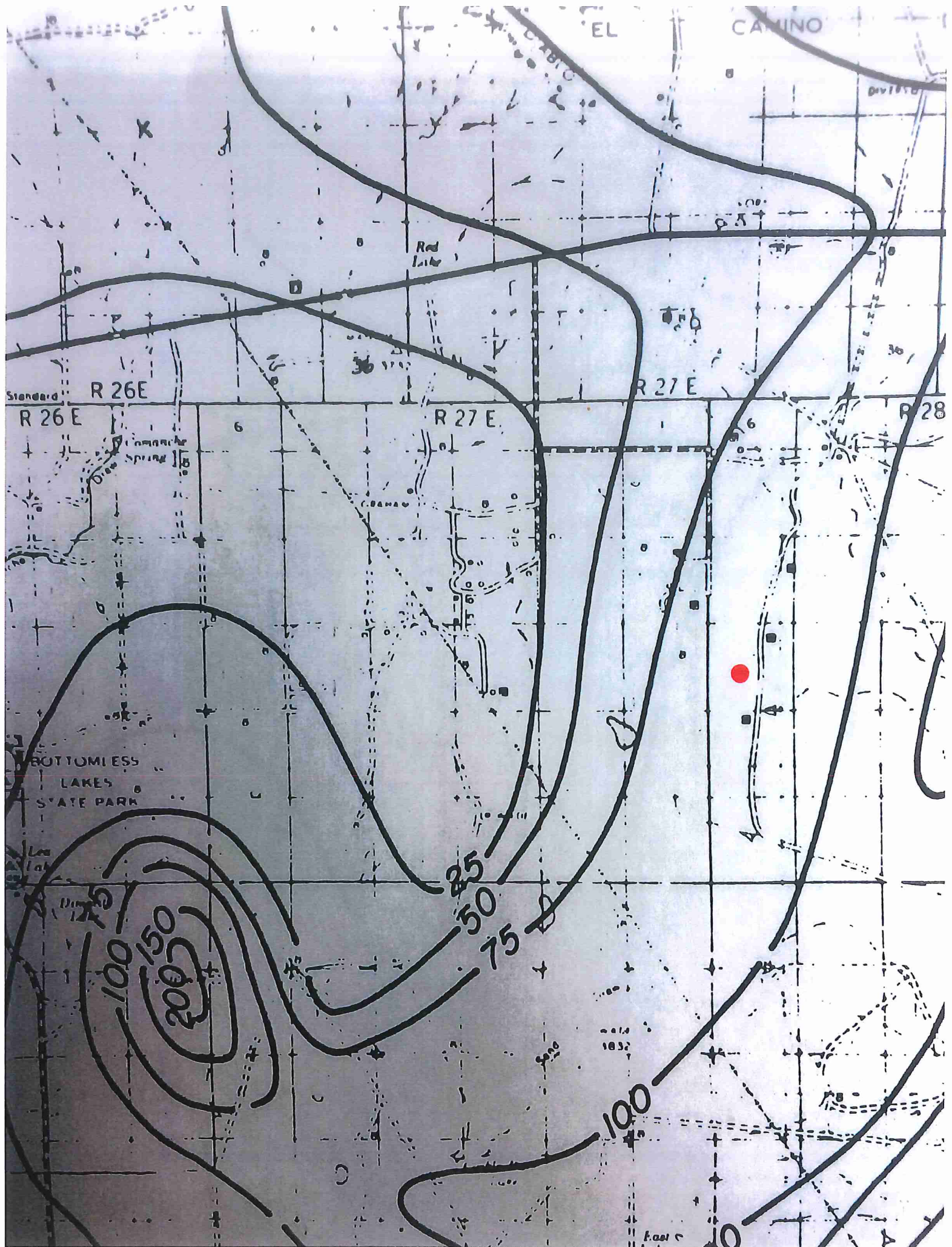
Google earth

© 2016 Google

© 2016 Europa Technologies

APPENDIX II

GROUNDWATER DATA



APPENDIX III

INITIAL C-141 & FINAL C-141

NM OIL CONSERVATION

ARTESIA DISTRICT

APR 14 2016

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

RECEIVED

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

DABI01103315 **240974** **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company: Legacy Reserves Operating, LP	Contact: Freddie Gibbs
Address: 303 W. Wall St. Ste 1300, Midland, TX 79701	Telephone No.: 432-664-1692
Facility Name: State CF #5	Facility Type: Battery

Surface Owner: State	Mineral Owner:	API No.: 30-005-60304
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Chaves
K	13	11S	27E	1980	South	1980	West	

Latitude **33.363369 N** Longitude **-104.1924744 W**

NATURE OF RELEASE

Type of Release: Mixed fluids	Volume of Release: 500 bbls	Volume Recovered: Unknown
Source of Release: Tank overflow	Date and Hour of Occurrence: 9/2015	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* The horizontal pump and the high-level alarm failed causing the tank to overflow. Approximately 500 barrels were released into the lined containment. An estimated 3-4 barrels breached the containment and flowed approximately 500-feet into the pasture. A vac truck was called to the location to recover the free standing fluids.		
Describe Area Affected and Cleanup Action Taken.* Talon/LPE was retained by Legacy Reserves to develop a work plan and remediate the affected area in the pasture. Initial sampling activities were conducted on 4/6/2016.		

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 ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Freddie Gibbs</i>	OIL CONSERVATION DIVISION	
Printed Name: Freddie Gibbs	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Production Superintendent	Approval Date: 4/19/16	Expiration Date: N/A
E-mail Address: fgibbs@legacyp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4/8/2016 Phone: 432-664-1692	Remediation per O.C.D. Rules & Guidelines	

* Attach Additional Sheets If Necessary

SUBMIT REMEDIATION PROPOSAL NO.
LATER THAN: **5/20/16** **2RP-3648**

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Legacy Reserves Operating, LP	Contact: Freddie Gibbs
Address: 303 W. Wall St. Ste 1300, Midland, TX 79701	Telephone No.: 432-664-1692
Facility Name: State CF #5	Facility Type: Battery

Surface Owner: State	Mineral Owner: State	API No.: 30-005-60304
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LOCATION OF RELEASE

Unit Letter K	Section 13	Township 11S	Range 27E	Feet from the 1980	North/South Line South	Feet from the 1980	East/West Line West	County: Chaves
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Latitude 33.363369 N Longitude -104.1924744 W

NATURE OF RELEASE

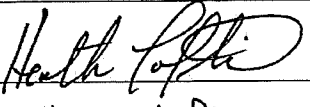
Type of Release: Mixed fluids	Volume of Release: 500 bbls	Volume Recovered: Unknown
Source of Release: Tank overflow	Date and Hour of Occurrence: 9/2015	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* The horizontal pump and the high-level alarm failed causing the tank to overflow. Approximately 500 barrels were released into the lined containment. An estimated 3-4 barrels breached the containment and flowed approximately 500-feet into the pasture. A vac truck was called to the location to recover the free standing fluids. Talon/LPE (Talon) mobilized personnel to conduct a site assessment and perform soil sampling within the impacted area. Upon receipt of analytical data from the soil sampling events a remediation work plan was drafted and subsequently approved by NMOCD.

Describe Area Affected and Cleanup Action Taken.* The impacted area was remediated per the approved remediation work plan. The liner inside the battery was inspected and found to be in good condition so the battery was flushed to remove the remaining oil/produced water and was treated with Micro-Blaze to degrade any oil staining on the gravel. The impacted area in the pasture was excavated to depths between 1 and 3 feet below ground surface. Confirmation soil samples were taken from the sidewalls of the excavation. Upon receipt of analytical results from the confirmation sampling showing that all of the impacted soil had been removed, the excavation was backfilled with top soil, contoured to match the surrounding terrain, and seeded with BLM #2 LPC seed mixture.

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 ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Heath Loftin	Approved by Environmental Specialist:		
Title: Production Superintendent	Approval Date:	Expiration Date:	
E-mail Address: h.loftin@legacyp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 6/29/2016	Phone: 432-853-2445		

* Attach Additional Sheets If Necessary

APPENDIX IV

SEED LABEL

6/13/16
X.L.

Lot# M-13730

<u>Item</u>	<u>Origin</u>	<u>Purity</u>	<u>Germ</u>	<u>Dormant</u>	<u>Total Germination</u>	<u>Test Date</u>	<u>Total LBS Pounds</u>
Sand Dropseed VNS	New Mexico	5.56%	23.00%	73.00%	96.00%	11/15	1.00
Sand Bluestem Woodward	Texas	14.05%	95.00%	0.00%	95.00%	11/15	2.50
Little Bluestem Aldous	Texas	14.20%	94.00%	0.00%	94.00%	11/15	2.50
Coreopsis Plains	Colorado	5.93%	84.00%	6.00%	90.00%	03/16	1.00
Plains Brizegrass VNS	Oklahoma	16.68%	84.00%	12.00%	96.00%	12/15	3.00
Sideoats Grama El Reno	New Mexico	17.41%	35.00%	57.00%	92.00%	03/16	3.00
Crop: Seed: Watter:	6.28% 0.06% 19.83%	There Are 1 Bags For this Mix This Bag Weighs 18 Bulk Pounds Use This Bag For 0.5 lbs				Total Bulk Pounds:	19

APPENDIX V

LABROTORY RESULTS

June 13, 2016

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: LEGACY STATE CF BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/06/16 13:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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. Keene

Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/06/2016	Sampling Date:	06/02/2016
Reported:	06/13/2016	Sampling Type:	Soil
Project Name:	LEGACY STATE CF BATTERY	Sampling Condition:	Cool & Intact
Project Number:	701047.162.01	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S-4 1.0' (H601216-01)

BTEX 8260B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2016	ND	1.99	99.3	2.00	1.59	
Toluene*	<0.050	0.050	06/09/2016	ND	2.08	104	2.00	0.988	
Ethylbenzene*	<0.050	0.050	06/09/2016	ND	2.03	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/09/2016	ND	6.78	113	6.00	1.79	
Total BTEX	<0.300	0.300	06/09/2016	ND					

Surrogate: Dibromofluoromethane 105 % 90.4-111

Surrogate: Toluene-d8 97.6 % 85.3-114

Surrogate: 4-Bromofluorobenzene 98.7 % 80.1-121

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2016	ND	169	84.7	200	11.4	
DRO >C10-C28	<10.0	10.0	06/07/2016	ND	183	91.6	200	14.1	

Surrogate: 1-Chlorooctane 64.5 % 35-147

Surrogate: 1-Chlorooctadecane 89.6 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	06/06/2016	Sampling Date:	06/02/2016
Reported:	06/13/2016	Sampling Type:	Soil
Project Name:	LEGACY STATE CF BATTERY	Sampling Condition:	Cool & Intact
Project Number:	701047.162.01	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S-5 1.0' (H601216-02)

BTX 8260B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2016	ND	1.99	99.3	2.00	1.59	
Toluene*	<0.050	0.050	06/09/2016	ND	2.08	104	2.00	0.988	
Ethylbenzene*	<0.050	0.050	06/09/2016	ND	2.03	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/09/2016	ND	6.78	113	6.00	1.79	
Total BTX	<0.300	0.300	06/09/2016	ND					

Surrogate: Dibromofluoromethane 103 % 90.4-111

Surrogate: Toluene-d8 97.6 % 85.3-114

Surrogate: 4-Bromofluorobenzene 98.5 % 80.1-121

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2016	ND	169	84.7	200	11.4	
DRO >C10-C28	<10.0	10.0	06/07/2016	ND	183	91.6	200	14.1	

Surrogate: 1-Chlorooctane 73.0 % 35-147

Surrogate: 1-Chlorooctadecane 100 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	06/06/2016	Sampling Date:	06/02/2016
Reported:	06/13/2016	Sampling Type:	Soil
Project Name:	LEGACY STATE CF BATTERY	Sampling Condition:	Cool & Intact
Project Number:	701047.162.01	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S-6 1.0' (H601216-03)

BTEX 8260B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2016	ND	1.99	99.3	2.00	1.59	
Toluene*	<0.050	0.050	06/09/2016	ND	2.08	104	2.00	0.988	
Ethylbenzene*	<0.050	0.050	06/09/2016	ND	2.03	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/09/2016	ND	6.78	113	6.00	1.79	
Total BTEX	<0.300	0.300	06/09/2016	ND					

Surrogate: Dibromofluoromethane 105 % 90.4-111

Surrogate: Toluene-d8 101 % 85.3-114

Surrogate: 4-Bromofluorobenzene 98.5 % 80.1-121

TPH 8015M		mg/kg		Analyzed By: CK					
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GRO C6-C10	<10.0	10.0	06/07/2016	ND	169	84.7	200	11.4	
DRO >C10-C28	<10.0	10.0	06/07/2016	ND	183	91.6	200	14.1	

Surrogate: 1-Chlorooctane 63.4 % 35-147

Surrogate: 1-Chlorooctadecane 91.5 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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TALON LPE
DAVID ADKINS
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ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/06/2016	Sampling Date:	06/02/2016
Reported:	06/13/2016	Sampling Type:	Soil
Project Name:	LEGACY STATE CF BATTERY	Sampling Condition:	Cool & Intact
Project Number:	701047.162.01	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S-7 1.0' (H601216-04)

BTEX 8260B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2016	ND	1.99	99.3	2.00	1.59	
Toluene*	<0.050	0.050	06/09/2016	ND	2.08	104	2.00	0.988	
Ethylbenzene*	<0.050	0.050	06/09/2016	ND	2.03	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/09/2016	ND	6.78	113	6.00	1.79	
Total BTEX	<0.300	0.300	06/09/2016	ND					

Surrogate: Dibromofluoromethane 104 % 90.4-111

Surrogate: Toluene-d8 98.1 % 85.3-114

Surrogate: 4-Bromofluorobenzene 98.5 % 80.1-121

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2016	ND	169	84.7	200	11.4	
DRO >C10-C28	<10.0	10.0	06/07/2016	ND	183	91.6	200	14.1	

Surrogate: 1-Chlorooctane 65.2 % 35-147

Surrogate: 1-Chlorooctadecane 83.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	06/06/2016	Sampling Date:	06/02/2016
Reported:	06/13/2016	Sampling Type:	Soil
Project Name:	LEGACY STATE CF BATTERY	Sampling Condition:	Cool & Intact
Project Number:	701047.162.01	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S-8 1.0' (H601216-05)

BTEX 8260B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2016	ND	1.99	99.3	2.00	1.59	
Toluene*	<0.050	0.050	06/09/2016	ND	2.08	104	2.00	0.988	
Ethylbenzene*	<0.050	0.050	06/09/2016	ND	2.03	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/09/2016	ND	6.78	113	6.00	1.79	
Total BTEX	<0.300	0.300	06/09/2016	ND					

Surrogate: Dibromofluoromethane 103 % 90.4-111

Surrogate: Toluene-d8 98.5 % 85.3-114

Surrogate: 4-Bromofluorobenzene 98.2 % 80.1-121

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2016	ND	169	84.7	200	11.4	
DRO >C10-C28	<10.0	10.0	06/07/2016	ND	183	91.6	200	14.1	

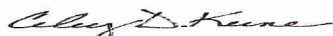
Surrogate: 1-Chlorooctane 57.5 % 35-147

Surrogate: 1-Chlorooctadecane 85.0 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	06/06/2016	Sampling Date:	06/02/2016
Reported:	06/13/2016	Sampling Type:	Soil
Project Name:	LEGACY STATE CF BATTERY	Sampling Condition:	Cool & Intact
Project Number:	701047.162.01	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S-9 1.0' (H601216-06)

BTEX 8260B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2016	ND	1.99	99.3	2.00	1.59	
Toluene*	<0.050	0.050	06/09/2016	ND	2.08	104	2.00	0.988	
Ethylbenzene*	<0.050	0.050	06/09/2016	ND	2.03	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/09/2016	ND	6.78	113	6.00	1.79	
Total BTEX	<0.300	0.300	06/09/2016	ND					

Surrogate: Dibromofluoromethane 102 % 90.4-111

Surrogate: Toluene-d8 98.4 % 85.3-114

Surrogate: 4-Bromofluorobenzene 98.3 % 80.1-121

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2016	ND	169	84.7	200	11.4	
DRO >C10-C28	<10.0	10.0	06/07/2016	ND	183	91.6	200	14.1	

Surrogate: 1-Chlorooctane 61.0 % 35-147

Surrogate: 1-Chlorooctadecane 82.3 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	06/06/2016	Sampling Date:	06/02/2016
Reported:	06/13/2016	Sampling Type:	Soil
Project Name:	LEGACY STATE CF BATTERY	Sampling Condition:	Cool & Intact
Project Number:	701047.162.01	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: S-10 1.0' (H601216-07)

BTEX 8260B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/09/2016	ND	1.99	99.3	2.00	1.59	
Toluene*	<0.050	0.050	06/09/2016	ND	2.08	104	2.00	0.988	
Ethylbenzene*	<0.050	0.050	06/09/2016	ND	2.03	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	06/09/2016	ND	6.78	113	6.00	1.79	
Total BTEX	<0.300	0.300	06/09/2016	ND					

Surrogate: Dibromofluoromethane 103 % 90.4-111

Surrogate: Toluene-d8 98.7 % 85.3-114

Surrogate: 4-Bromofluorobenzene 101 % 80.1-121

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/07/2016	ND	169	84.7	200	11.4	
DRO >C10-C28	<10.0	10.0	06/07/2016	ND	183	91.6	200	14.1	

Surrogate: 1-Chlorooctane 66.1 % 35-147

Surrogate: 1-Chlorooctadecane 85.9 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

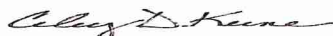
Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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

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Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

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Reimbursement Due:	Date:	Received Date:

Relinquished By:						Date:	Received By:
						Time:	
Relinquished By:						Date:	
						Time:	
Delivered By: (Circle One)						Sample Condition	
						Cool	Intact
						<input type="checkbox"/> Yes	<input type="checkbox"/> No
Sampler - UPS - Bus - Other:						CHECKED BY: (Initials)	

Cardinal cannot accept verbal abuse.