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TALON LPE

Remediation and Closure Report

Hackberry Hills Federal #4 - SRS #2017-077
2RP-4247
Talon Project No. 700376.270.01

Prepared For:

Plains Marketing, L.P
577 US Highway 385 North
Seminole, Texas 79360

Prepared By:

TALON/LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

January 22, 2018

Ms. Camille Bryant
Plains All Marketing, L.P.
577 US Highway 385 North
Seminole, Texas 79360

Subject: **Remediation and Closure Report**
Hackberry Hills Federal #4 – SRS #2017-077
2RP-4247

Dear Ms. Bryant,

Plains All American Marketing, LP (Plains) had 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 Hackberry Hills Federal #4 is located approximately three (3) miles west of Carlsbad, New Mexico. The legal description for this release is Unit Letter F, Section 22, Township 22 South and Range 26 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.37848 North and -104.2834 West. A site plan is presented in Appendix I. This property is administered by the United States Department of the Interior-Bureau of Land Management (BLM) Carlsbad field office.

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services (NRCS) the soil in this area is made up of Ector extremely rocky loam with a 9 to 25 percent slopes. The local surface and shallow geology, Paleozoic Age sedimentary deposits, is comprised of the Guadeloupian Artesia Group, Tansil and Yates formations, which are made up of residuum weathered limestone under lain by very cobbly loam and hard caliches. Drainage courses in this area are normally dry.

Ground Water and Site Ranking

The New Mexico Office of the State Engineer (NMOSE) database indicates the nearest ground water data to be in S23-T22S-R26E approximately 2,061 feet from the project. The ground water in Section 23 is reported to be at depth of 74 feet below ground surface (BGS). A copy of this report is attached in Appendix II.

Therefore the ranking for this site is a **10** based on the following:

Depth to ground water	50-100’
Wellhead Protection Area	>1000’
Distance to surface water body	>1000’

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

Incident Description and Initial Remedial Actions

On May 10, 2017, a Plains driver was removing the bull plug from a tank valve and inadvertently removed one part of the two part valve which resulted in the release of approximately 116 barrels of crude oil with 2 barrels recovered. The released crude oil impacted a surface area of approximately 9,000 square feet of the Read and Stevens Hackberry Hills Federal #4 location, flowing downward through the Karst material and leaching out eastward of the tank battery impacting approximately 4,700 square feet of adjacent pastureland. A site plan illustrating the impacted area is attached in Appendix I.

On May 10, 2017, the release was verbally reported to a representative with the New Mexico Oil Conservation Division (NMOCD) District II. On June 5, 2017, the Release Notification and Corrective Action Form (C-141) was submitted to the NMOCD District II Office and is attached in Appendix III. The BLM was also notified of the release on May 10, 2017. A Cultural Resource Survey (Arch Survey) was subsequently conducted by Boone Archaeological Resource Consultants, LLC, on the pasture lands adjacent to the tank battery location. Results of the Arch Survey found cultural resources to be negative in the study area. A complete copy of the Arch Survey is presented in Appendix IV.

Remedial Actions Taken

On May 15, 2017, Talon mobilized equipment and personnel to begin remediation activities. A PID meter and field titration screening for chlorides were utilized to guide the excavation. The impacted area was excavated between approximately 1-4 feet deep depending upon the depths refusal was encountered. Soil samples were collected as the excavation activities progressed. Several site meetings with the client, consultant, BLM and NMOCD were held regarding further remedial actions, excavation limitations, sampling locations and facility reconstruction.

On May 24, 2107, a site meeting was held with Plains and BLM representatives. It was decided by the BLM that due to the Karst Topography present and the proximity to potable wells that no extreme measures should be undertaken and that excavation depths would terminate at hard rock refusal without further disturbance of the formation.

On June 23, 2017, the areas on location and in the pasture were treated with Micro-Blaze, a bioremediation agent.

On June 29, 2017, a meeting was held at the NMOCD District II Office in Artesia, New Mexico. In attendance were NMOCD, BLM, and Plains representatives. A site plan and laboratory data were presented for regulatory review. Conclusions from the meeting included the following:

- approval that vertical excavation depths would only extend to hard rock refusal depths;
- regulatory acceptance of slightly elevated analytical results as a result of excavation depth limitations;
- excavation eastward would continue in the pasture near sample location S-11 due to elevated TPH levels when roadrunner nesting was complete (vicinity of sampling location S-11). Work had previously ceased in this area so as not to disturb the nesting pattern per BLM request. After several weeks when the roadrunner was off the nest, excavation activities continued in this area and sample S-19 was subsequently obtained;
- additional vertical excavation, to the extent feasible, and additional horizontal sampling would be carried out regarding Chloride concentrations at sample location S-13. Following additional excavation activities this location was re-sampled (see 13A) and additional samples were collected in the immediate vicinity (S-15, S-16, S-17 and S-18).

On September 13, 2017, BLM and Plains representatives met on site to discuss reconstruction of the location, berms and the backfilling techniques to be utilized on the location slopes and in the pasture. A new cattle guard was also installed as requested by the BLM.

All excavated soil (1,1965.29 tons) was transported to Lea Land, LLC (Permit #WM-01-035; MM 64 Hwy 62-180 East, Carlsbad, NM 88220), a NMOCD approved disposal facility. The waste was profiled into Lea Land prior to project commencement. A copy of the C-138 Form is attached in Appendix V for review.

The work area was backfilled with imported non-impacted material, watered, compacted and contoured to match the surrounding terrain per BLM direction. Per BLM request, the pasture was not to be reseeded but allowed to naturally re-vegetate.

Laboratory Results

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Xenco Laboratories in Midland, Texas for analysis. The samples were analyzed for TPH (Total Petroleum Hydrocarbons), volatile organics (BTEX) and Total Chlorides per EPA Method 300. A copy of the confirmation sampling results are presented in the following data tables. See Appendix VI for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO	TPH (mg/kg) EXT ORO	Total TPH (mg/kg)
S-1	3.0	0.160	409	87	542	--	629
S-2	2.0	ND	868	ND	274	--	274
S-3	3.0	0.073	502	440	3140	--	3580
Battery	1.0	ND	8.73	ND	104	ND	104
S-3	3.25	ND	467	47.5	1420	ND	1470
S-4	1.5	ND	49.7	86.7	1540	ND	1630
S-5	3.0	ND	381	31.6	819	ND	851
S-6	3.0	ND	928	ND	235	ND	235
S-7	1.0	ND	175	77.5	1350	ND	1430
S-8	2.0	ND	189	114	1110	ND	1220
S-9	4.0	ND	ND	ND	ND	ND	ND
S-10	3.0	0.0134	31.3	86.4	1380	ND	1470
S-11	1.5	0.755	28.4	1360	7760	ND	9120
S-11 *	1.5	--	--	37.5	4380	1140	5560

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO	TPH (mg/kg) EXT ORO	Total TPH (mg/kg)
S-12	0.75	0.0206	28.5	61.9	1250	ND	1310
S-13	2.0	ND	3550	ND	155	ND	155
S-13A	2.5	--	47.5	--	--	--	--
S-17	2.5	--	29.8	--	--	--	--
S-18	2.5	--	130	--	--	--	--
S-19	2.5	--	--	<7.99	30.4	<8.11	30.4

-- Analyte Not Tested

ND – Analyte Not Detected within Laboratory Reporting Limits

* Post Micro-Blaze resample

Closure

Based upon the remedial actions described herein, resulting laboratory data, the Karst Topography and hard rock excavation limitations and verbal approval from the BLM and NMOCD, Talon, on behalf of Plains All American Marketing, respectfully requests that no further actions be required and that closure with respect 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

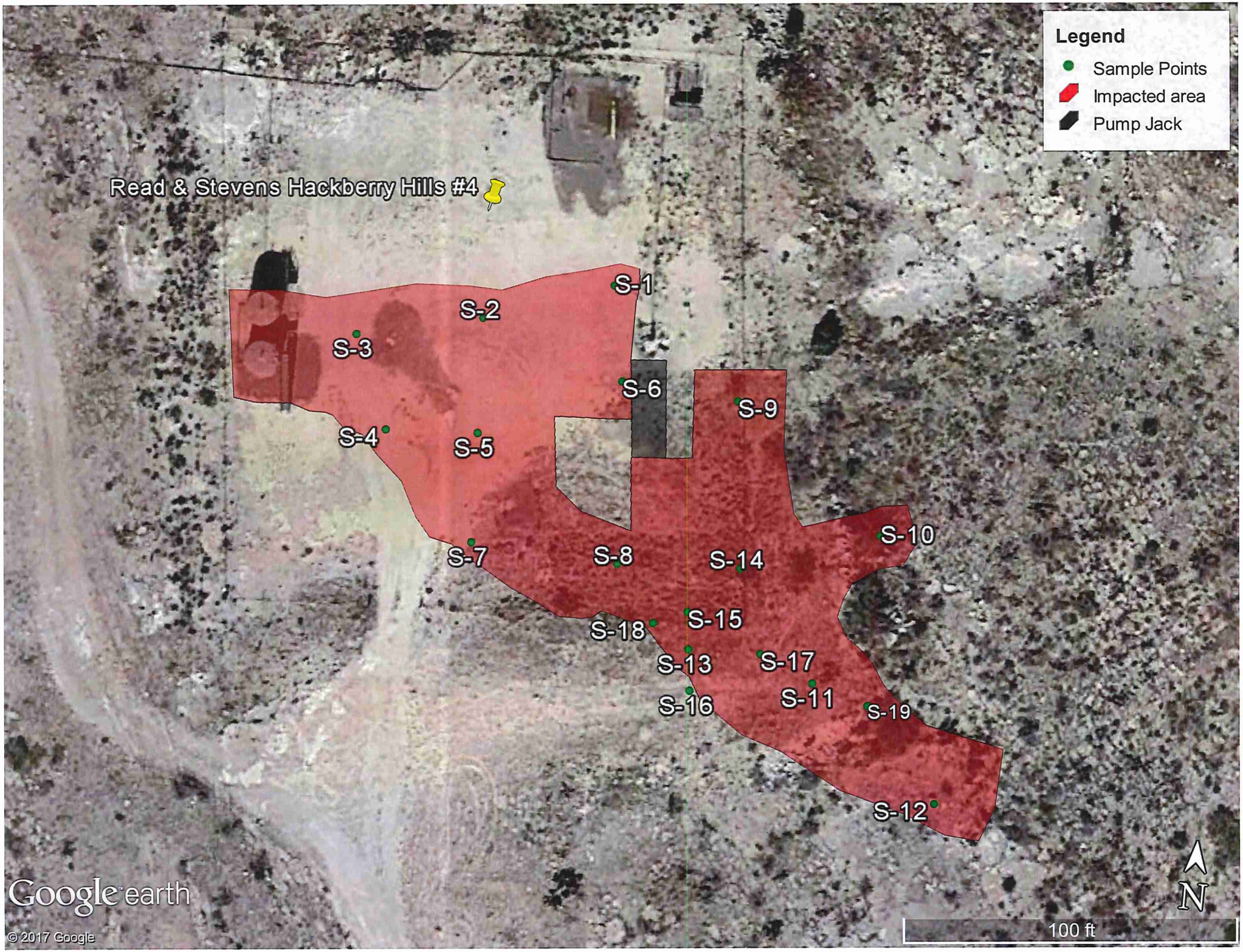
David J. Adkins
District Manager

Attachments:

Appendix I	Site Plan
Appendix II	Groundwater Data
Appendix III	Initial C-141's
Appendix IV	Archaeological Survey
Appendix V	C-138
Appendix VI	Laboratory Results

APPENDIX I

SITE PLAN


Legend
Sample Points
Impacted area
Pump Jack
Read & Stevens Hackberry Hills #4
S-1
S-2
S-3
S-4
S-5
S-6
S-7
S-8
S-9
S-10
S-11
S-12
S-13
S-14
S-15
S-16
S-17
S-18
S-19
N
100 ft
Google earth
© 2017 Google

APPENDIX II

GROUNDWATER DATA

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 water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00558		C	ED	2	3	1	23	22S	26E	568749	3582872*	628	140	74	66
C 01133		C	ED			4	22	22S	26E	568037	3582149*	926	224	76	148
C 01513		C	ED			1	22	22S	26E	567235	3582937*	926	156	90	66

Average Depth to Water: **80 feet**

Minimum Depth: **74 feet**

Maximum Depth: **90 feet**

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 568152 **Northing (Y):** 3583068 **Radius:** 1000

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

5/10/17 10:47 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX III

INITIAL C-141

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 05 2017
RECEIVED

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

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 October 10, 2003

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

fAB1716440988
nAB1716441175

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Plains Marketing, LP 34053	Contact	Camille Bryant
Address	577 US Hwy. 385 N., Seminole, Texas 79360	Telephone No.	(575) 441-1099
Facility Name	Hackberry Hills Fed #4	Facility Type	Tank Battery

Surface Owner	Mineral Owner	Lease No.
BLM	BLM	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	22	22S	26E					Eddy

Latitude N 32.37848° Longitude W 104.2834°

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: 116 bbls	Volume Recovered: 2 bbls
Source of Release: Tank	Date and Hour of Occurrence: 05/10/2017 @ 07:45	Date and Hour of Discovery: 05/10/2017 @ 07:45
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Camille Bryant	Date and Hour: 05/10/2017@ 13:55	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Plains driver was attempting to remove a bull plug from the tank valve when he inadvertently removed one part of the two part valve which resulted in a release of crude oil.

Describe Area Affected and Cleanup Action Taken. The released crude oil impacted an area of approximately 8,900 square feet on the caliche pad, the released fluid flowed south off the pad impacting approximately 750 square feet of pasture land. The impacted areas will be remediated as per applicable NMOCD guidelines.

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: Camille Bryant

Printed Name: Camille Bryant

Title: Remediation Coordinator

E-mail Address: cjbryant@paalp.com

Date: 6/5/17 Phone: (575) 441-1099

OIL CONSERVATION DIVISION

Approved by District Supervisor: Signed By Mike Bratcher

Approval Date: 6/13/17 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☐

2RP-4247

* Attach Additional Sheets If Necessary

New forms can be found in the New Mexico State Website in forms:
http://www.emnrd.state.nm.us/
OCD/forms.html

APPENDIX IV

ARCHAELOGICAL SURVEY

NMCRIS No.: 138190

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.:	2a. Lead Agency:	2b. Other Agency(ies):	3. Lead Agency Report No.:
138190	US Bureau of Land Management Carlsbad Field Office		

4. Title of Report:

A Class III Archaeological Survey for the Plains Pipeline Proposed Hackberry Hills Federal #4 Spill Remediation, Eddy County, New Mexico

Author(s)

Galassini, Stacy K. and Joshua W. Broxson

5. Type of Report

☑ Negative

☐ Positive

6. Investigation Type

☐ Research Design ☑ Archaeological Survey/Inventory ☐ Architectural Survey/Inventory ☐ Test Excavation ☐ Excavation
☐ Collections/Non-Field Study ☐ Compliance Decision Based on Previous Inventory ☐ Overview/Lit Review ☐ Monitoring
☐ Ethnographic Study ☐ Site/Property Specific Visit ☐ Historic Structures Report ☐ Other

7. Description of Undertaking (what does the project entail?):

Plains Pipeline proposes to conduct remediation of the Hackberry Hills Federal #4 Spill in Eddy County, NM, on federal lands in Section 22 of T22S R26E. The spill measures approximately 0.01 acres extending east from the southeast corner of the Hackberry Hills Federal #4 well pad. The majority of the spill is actually on the pad. A small berm of dirt has been placed around the perimeter of the spill off pad. Per consultation with BLM/CFO B. Boeke conducted on May 12, 2017, a 100 ft. wide survey buffer was conducted around the spill, excluding the well pad. The survey measures 0.83 acres.

[ ] Continuation

8. Dates of Investigation: from: 13-May-2017 to: 13-May-2017

9. Report Date: 08-Jun-2017

10. Performing Agency/Consultant: Boone Archaeological Resource Consultants, LLC.

Principal Investigator: Stacy K. Galassini

Field Supervisor: Stacy K. Galassini

Field Personnel Names: Stacy K. Galassini

Historian / Other:

11. Performing Agency/Consultant Report No.:

BARC 03-17-50

12. Applicable Cultural Resource Permit No(s):

BLM Permit No.: 190-2920-16-V

NMCRIS No.: 138190

13. Client/Customer (project proponent):

Talon LPE

Contact: David Adkins

Address: **Phone:**

14. Client/Customer Project No.:

15. Land Ownership Status (must be indicated on project map):

Land Owner (By Agency)	Acres Surveyed	Acres in APE
US Bureau of Land Management Carlsbad Field Office	0.83	0.83
TOTALS	0.83	0.83

16. Records Search(es):

Date(s) of HPD/ARMS File Review: 12 May 2017	Name of Reviewer(s): S. K. Galassini	
Date(s) of Other Agency File Review: 12 May 2017	Name of Reviewer(s): S. K. Galassini	Agency: BLM/CFO

17. Survey Data:

a. Source Graphics [ ] NAD 27 [x] NAD 83 **Note: NAD 83 is the NMCRIS standard.**

☑ **USGS 7.5' (1:24,000) topo map** ☐ **Other topo map, Scale:**

☑ **GPS Unit** **Accuracy** ☑ **<1.0m** ☐ **1-10m** ☐ **10-100m** ☐ **>100m** ☐ **Aerial Photo(s)**

Other Source Graphic(s):

b. USGS 7.5' Topographic Map Name **USGS Quad Code**

Carlsbad West, NM	32104-D3

c. County(ies): EDDY

d. Nearest City or Town: Carlsbad, NM

e. Legal Description:

Township (N/S)	Range (E/W)	Section
22S	26E	22

Projected legal description? [ ] Yes [x] No [ ] Unplatted

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

[ ] Continuation

18. Survey Field Methods:

Intensity: ☑ 100% coverage ☐ <100% coverage

NMCRIS No.: 138190

Configuration: ☑ block survey units ☐ linear survey units (l x w):
☐ other survey units (specify):

Scope: ☑ non-selective (all sites/properties recorded) ☐ selective/thematic (selected sites/properties recorded)

Coverage Method: ☑ systematic pedestrian coverage

☐ other method (describe):

Survey Interval (m): 15 **Crew Size:** 1 **Fieldwork Dates:** from: 13-May-2017 to: 13-May-2017

Survey Person Hours: 0.50 **Recording Person Hours:** 0.00 **Total Hours:** 0.50

Additional Narrative:

The survey was conducted using 50 ft. parallel transects across an irregularly shaped block measuring 0.83 acres. The proposed project lies within 1 mile of ten previously recorded archaeological sites: LAs 65400, 140906, 142044, 148155, 164989, 164990, 164991, 166710, 182746, and an unnumbered site named Lost Cave.

[ ] Continuation

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):

According to the Natural Resources Conservation Service' online database, the project area soils consist of Ector soils. These soils are associated with the Limestone Hills ecological site (R070DY151NM) which supports a wide variety of vegetation dependent upon the location. The current vegetative community consists of shinnery oak, mesquite, broom snakeweed, and desert grasses and forbs. The project area lies on the southwestern slope of the Hackberry Hills, approximately 3 miles southwest of Carlsbad, NM. The elevation ranges from 3,390 ft. to 3,400 ft. above mean sea level.

[ ] Continuation

20.a. Percent Ground Visibility: 85& **b. Condition of Survey Area (grazed, bladed, undistributed, etc.):**

The survey area surrounds a spill and abuts a well pad and lease road. The survey area has also been disturbed by erosion.

[ ] Continuation

21. CULTURAL RESOURCE FINDINGS ☐ **Yes, see next report section** ☑ **No, discuss why:**

No cultural materials were recorded or updated during the survey. This is most likely due to the small survey area and high level of disturbance.

[ ] Continuation

22. Attachments (check all appropriate boxes):

[x] USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)

[x] Copy of NMCRIS Map Check (required)

[ ] LA Site Forms - new sites (with sketch map & topographic map) if applicable

[ ] LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)

[ ] Historic Cultural Property Inventory Forms, if applicable

[ ] List and Description of Isolates, if applicable

[ ] List and Description of Collections, if applicable

23. Other Attachments:

[ ] Photographs and Log

[x] Other Attachments (Describe): Plat Map

NMCRIS No.: 138190

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Qualified Supervisor: **Printed Name:** Stacy K. Galassini

Signature: Stacy K. Galassini **Date:** 6/9/17 **Title:** Principal Investigator

25. Reviewing Agency	**26. SHPO**
Reviewer's Name/Date:	**Reviewer's Name/Date:**
Accepted [ ] **Rejected [ ]**	**HPD Log #:**
	Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

SURVEY RESULTS:

Archaeological Sites discovered and registered: 0

Archaeological Sites discovered and NOT registered: 0

Previously recorded archaeological sites revisited (site update form required): 0

Previously recorded archaeological sites not relocated (site update form required): 0

TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 0

Total isolates recorded: 0 ☑ **Non-selective isolate recording?**

HCPI properties discovered and registered: 0

HCPI properties discovered and NOT registered: 0

Previously recorded HCPI properties revisited: 0

Previously recorded HCPI properties not relocated: 0

TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

MANAGEMENT SUMMARY:

No cultural materials were recorded or updated during the survey. If cultural materials are encountered during the spill remediation, work should be halted and archaeologists with the BLM/CFO should be notified immediately.

[ ] Continuation

IF REPORT IS NEGATIVE, YOU ARE DONE AT THIS POINT.

SURVEY LA/HCPI NUMBER LOG

Sites/Properties Discovered:

LA/HCPI No. **Field/Agency No.** **Eligible? (Y/N/U, applicable criteria)**

NMCRIS No.: 138190

Previously recorded revisited sites/HCPI properties:

LA/HCPI No. Field/Agency No. Eligible? (Y/N/U, applicable criteria)

MONITORING LA NUMBER LOG (site form required)

Sites Discovered (site form required):

LA No. Field/Agency No.

Previously recorded sites (site update form required):

LA No. Field/Agency No.

Areas outside known nearby site boundaries monitored? [ ] Yes [ ] No, Explain why:

TESTING & EXCAVATION LA NUMBER LOG (site form required)

Tested LA number(s)

Excavated LA number(s)

A Class III Archaeological Survey for the Plains Pipeline Proposed Hackberry Hills Federal #4 Spill Remediation, Eddy County, New Mexico

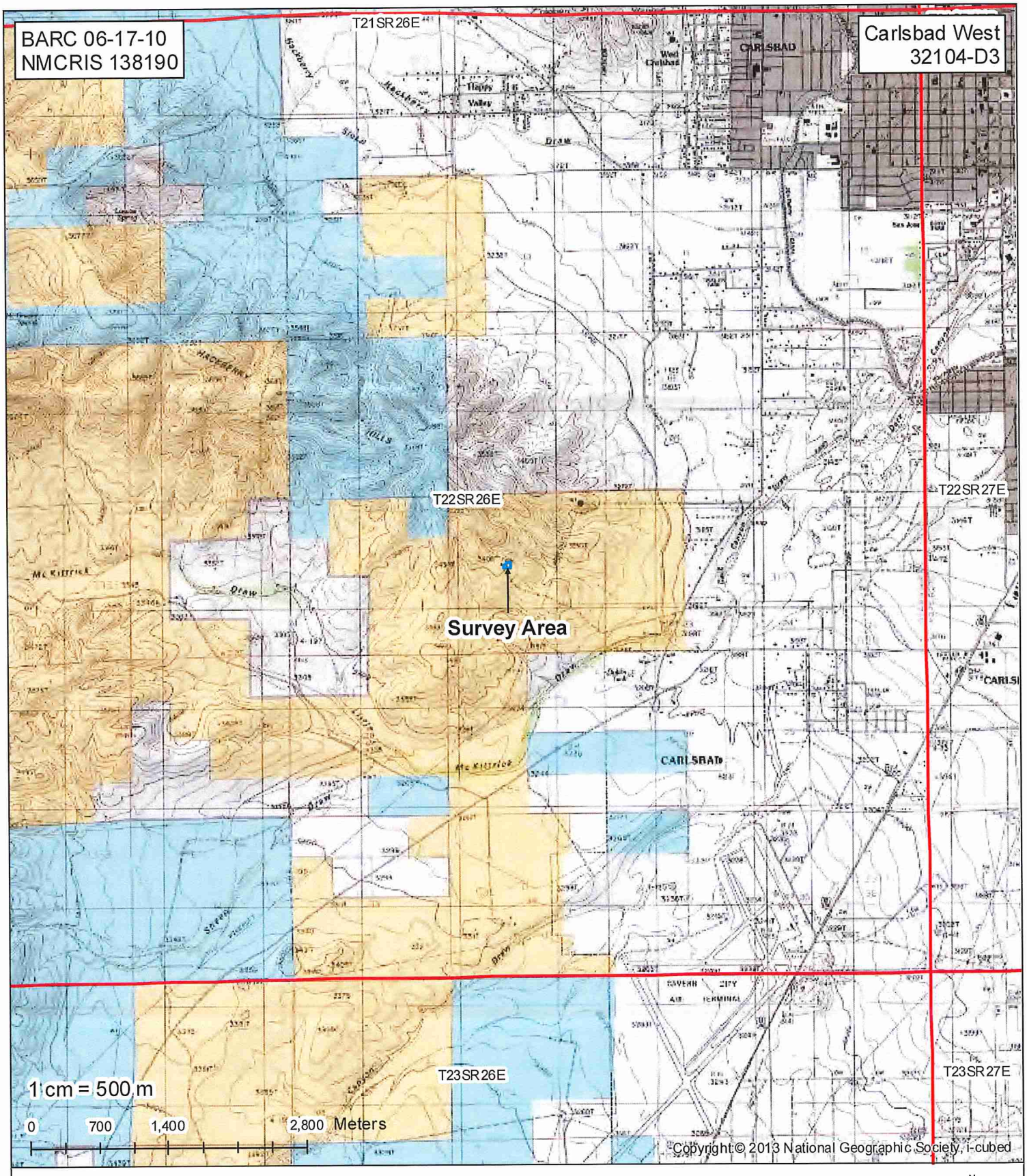


Figure 1. Project Area

Survey Area | BLM | Private | NM State Trust Land

A Class III Archaeological Survey for the Plains Pipeline Proposed Hackberry Hills Federal #4 Spill Remediation, Eddy County, New Mexico

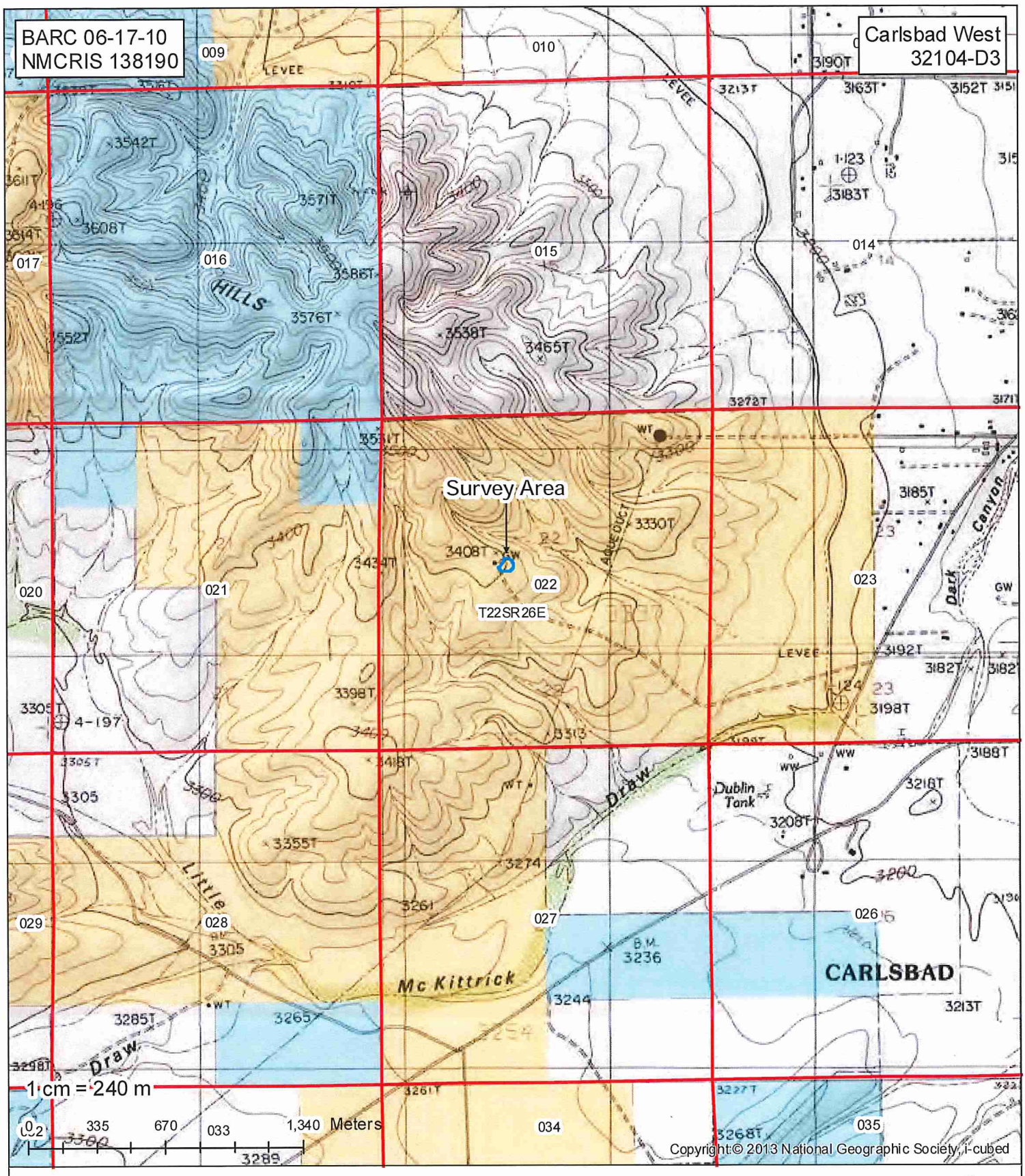


Figure 2. Current & Previous Survey Results

Survey Area | BLM | Private | NM State Trust Land

A Class III Archaeological Survey for the Plains Pipeline Proposed Hackberry Hills Federal #4 Spill Remediation, Eddy County, New Mexico

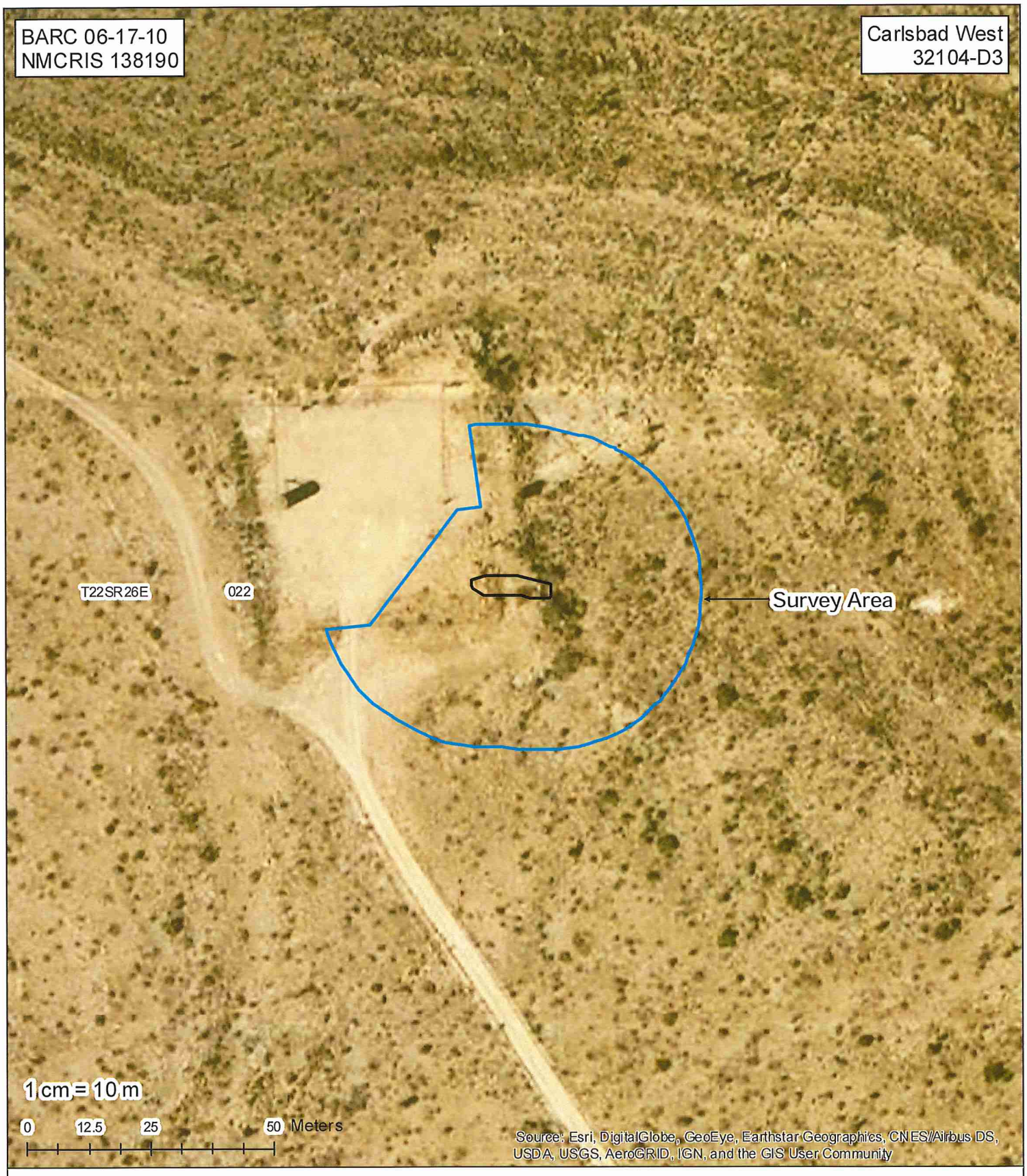


Figure 3. Spill Area

Survey Area | Spill | Archaeological Site | BLM | Private | NM State Trust Land

N
W E
S

APPENDIX V

C-138

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-138
Revised August 1, 2011

*Surface Waste Management Facility Operator and Generator shall maintain and make this Documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Plains Marketing
Connie Road, Carlsbad NM

2. Originating Site:
Hackberry Hill #4, Read and Stevens location, Carlsbad, NM

3. Location of Material (Street Address, City, State or ULSTR):
UL F, Section 22, Township 22 S, Range 26 East, Eddy County, New Mexico

4. Source and Description of Waste:
Crude oil release from storage tank.

Estimated Volume 600 yd^3 Known Volume (to be entered by the operator at the end of the haul) _____ yd^3 / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Camille Bryant, representative or authorized agent for Plains Pipeline, LP do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Camille Bryant, representative for Plains Pipeline, LP do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter:
Talon LPE

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Lea Land, LLC WM-01-035

Address of Facility: MM 64 Hwy 62/180 East, Carlsbad, NM 88220

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☒ Landfill ☐ Other

Waste Acceptance Status:

☑ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Sarah Hall TITLE: Disp Mgr DATE: 5/23/17

SIGNATURE: _____ TELEPHONE NO.: 405-579-1187

Surface Waste Management Facility Authorized Agent

APPENDIX VI

LABORATORY REPORTS

Analytical Report 553431

for

Talon LPE

Project Manager: David Adkins

Hackberry Hill #4

700376.270.01

25-MAY-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

25-MAY-17

Project Manager: **David Adkins**
Talon LPE
408 W. Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **553431**
Hackberry Hill #4
Project Address: Hackberry Hill #4

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 553431. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 553431 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 553431

Talon LPE, Artesia, NM

Hackberry Hill #4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1	S	05-16-17 13:30	3 - 0 ft	553431-001
S-2	S	05-16-17 13:50	2 - 0 ft	553431-002
S-3	S	05-16-17 14:10	3 - 0 ft	553431-003

CASE NARRATIVE

Client Name: Talon LPE

Project Name: Hackberry Hill #4

Project ID: *700376.270.01*
Work Order Number(s): *553431*

Report Date: *25-MAY-17*
Date Received: *05/18/2017*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3018068 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 553431

Talon LPE, Artesia, NM

Project Name: Hackberry Hill #4

Project Id: 700376.270.01
Contact: David Adkins
Project Location: Hackberry Hill #4

Date Received in Lab: Thu May-18-17 10:14 am
Report Date: 25-MAY-17
Project Manager: Kelsey Brooks

Analysis Requested												
	Lab Id:	553431-001		553431-002		553431-003						
	Field Id:	S-1		S-2		S-3						
	Depth:	3-0 ft		2-0 ft		3-0 ft						
	Matrix:	SOIL		SOIL		SOIL						
	Sampled:	May-16-17 13:30		May-16-17 13:50		May-16-17 14:10						
BTEX by EPA 8021B	*Extracted:*	May-23-17 07:30		May-23-17 07:30		May-23-17 07:30						
	Analyzed:	May-23-17 15:00		May-23-17 14:44		May-23-17 15:16						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Benzene		ND	0.00199	ND	0.00201	ND	0.00200					
Toluene		0.00390	0.00199	ND	0.00201	0.00711	0.00200					
Ethylbenzene		0.0213	0.00199	ND	0.00201	0.00972	0.00200					
m,p-Xylenes		0.0947	0.00398	ND	0.00402	0.0411	0.00399					
o-Xylene		0.0405	0.00199	ND	0.00201	0.0151	0.00200					
Total Xylenes		0.135	0.00199	ND	0.00201	0.0562	0.00200					
Total BTEX		0.160	0.00199	ND	0.00201	0.0730	0.00200					
Chloride by EPA 300 SUB: E871002	*Extracted:*	May-22-17 20:53		May-22-17 20:53		May-22-17 20:53						
	Analyzed:	May-22-17 21:49		May-22-17 21:58		May-22-17 22:08						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
Chloride		409	9.92	868	8.96	502	9.54					
TPH By SW8015 Mod	*Extracted:*	May-19-17 13:00		May-19-17 13:00		May-19-17 13:00						
	Analyzed:	May-19-17 21:09		May-19-17 21:30		May-19-17 21:51						
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL					
C6-C10 Gasoline Range Hydrocarbons		87.0	15.0	ND	15.0	440	15.0					
C10-C28 Diesel Range Organics		542	15.0	274	15.0	3140	15.0					
Total TPH		629	15.0	274	15.0	3580	15.0					

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hill #4

Work Orders : 553431, **Project ID:** 700376.270.01

Lab Batch #: 3017886 **Sample:** 553431-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/19/17 21:09

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	91.0	99.7	91	70-135	
o-Terphenyl	52.0	49.9	104	70-135	

Lab Batch #: 3017886 **Sample:** 553431-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/19/17 21:30

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.3	99.9	88	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 3017886 **Sample:** 553431-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/19/17 21:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.9	100	97	70-135	
o-Terphenyl	48.5	50.0	97	70-135	

Lab Batch #: 3018068 **Sample:** 553431-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/23/17 14:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0338	0.0300	113	80-120	
4-Bromofluorobenzene	0.0344	0.0300	115	80-120	

Lab Batch #: 3018068 **Sample:** 553431-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/23/17 15:00

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0278	0.0300	93	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hill #4

Work Orders : 553431, **Project ID:** 700376.270.01

Lab Batch #: 3018068 **Sample:** 553431-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/23/17 15:16

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0330	0.0300	110	80-120	

Lab Batch #: 3017886 **Sample:** 724972-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/19/17 14:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

Lab Batch #: 3018068 **Sample:** 725094-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/23/17 08:43

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0333	0.0300	111	80-120	
4-Bromofluorobenzene	0.0348	0.0300	116	80-120	

Lab Batch #: 3017886 **Sample:** 724972-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/19/17 14:41

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.6	100	99	70-135	
o-Terphenyl	45.1	50.0	90	70-135	

Lab Batch #: 3018068 **Sample:** 725094-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/23/17 07:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hill #4

Work Orders : 553431,

Project ID: 700376.270.01

Lab Batch #: 3017886 **Sample:** 724972-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/19/17 15:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	46.4	50.0	93	70-135	

Lab Batch #: 3018068 **Sample:** 725094-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/23/17 07:37

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 3017886 **Sample:** 553325-043 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/19/17 15:46

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.8	99.8	96	70-135	
o-Terphenyl	45.1	49.9	90	70-135	

Lab Batch #: 3018068 **Sample:** 553455-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/23/17 07:54

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0329	0.0300	110	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 3017886 **Sample:** 553325-043 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/19/17 16:06

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.6	100	96	70-135	
o-Terphenyl	45.2	50.0	90	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hill #4

Work Orders : 553431,
Project ID: 700376.270.01
Lab Batch #: 3018068 **Sample:** 553455-001 SD / MSD **Batch:** 1 **Matrix:** Soil
Units: mg/kg **Date Analyzed:** 05/23/17 08:10

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0349	0.0300	116	80-120	
4-Bromofluorobenzene	0.0354	0.0300	118	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Hackberry Hill #4

Work Order #: 553431 **Project ID:** 700376.270.01

Analyst: ALJ **Date Prepared:** 05/23/2017 **Date Analyzed:** 05/23/2017

Lab Batch ID: 3018068 **Sample:** 725094-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0996	0.101	101	0.0998	0.0973	97	4	70-130	35	
Toluene	<0.00199	0.0996	0.0945	95	0.0998	0.108	108	13	70-130	35	
Ethylbenzene	<0.00199	0.0996	0.102	102	0.0998	0.115	115	12	71-129	35	
m,p-Xylenes	<0.00398	0.199	0.206	104	0.200	0.211	106	2	70-135	35	
o-Xylene	<0.00199	0.0996	0.100	100	0.0998	0.0910	91	9	71-133	35	

Analyst: DHE **Date Prepared:** 05/22/2017 **Date Analyzed:** 05/22/2017

Lab Batch ID: 3017956 **Sample:** 725041-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1.00	10.0	9.71	97	10.0	9.69	97	0	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Hackberry Hill #4

Work Order #: 553431 **Project ID:** 700376.270.01

Analyst: ARM **Date Prepared:** 05/19/2017 **Date Analyzed:** 05/19/2017

Lab Batch ID: 3017886 **Sample:** 724972-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	1000	953	95	1000	982	98	3	70-135	35	
C10-C28 Diesel Range Organics	<15.0	1000	966	97	1000	996	100	3	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hill #4

Work Order # : 553431 **Project ID:** 700376.270.01

Lab Batch ID: 3018068 **QC- Sample ID:** 553455-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/23/2017 **Date Prepared:** 05/23/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00358	0.179	0.135	75	0.177	0.133	75	1	70-130	35	
Toluene	<0.00358	0.179	0.137	77	0.177	0.135	76	1	70-130	35	
Ethylbenzene	<0.00358	0.179	0.164	92	0.177	0.138	78	17	71-129	35	
m,p-Xylenes	<0.00717	0.358	0.331	92	0.353	0.254	72	26	70-135	35	
o-Xylene	<0.00358	0.179	0.168	94	0.177	0.127	72	28	71-133	35	

Lab Batch ID: 3017956 **QC- Sample ID:** 553304-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/22/2017 **Date Prepared:** 05/22/2017 **Analyst:** DHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<9.92	99.2	101	102	99.2	101	102	0	80-120	20	

Lab Batch ID: 3017956 **QC- Sample ID:** 553550-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/23/2017 **Date Prepared:** 05/22/2017 **Analyst:** DHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<9.80	98.0	99.8	102	98.0	101	103	1	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hill #4

Work Order # : 553431 **Project ID:** 700376.270.01

Lab Batch ID: 3017886 **QC- Sample ID:** 553325-043 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/19/2017 **Date Prepared:** 05/19/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	998	994	100	1000	1030	103	4	70-135	35	
C10-C28 Diesel Range Organics	<15.0	998	982	98	1000	1000	100	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

Revision 2016.1

XENCO LABORATORIES

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote #: | Xenco Job #: 553431

Client / Reporting Information

Company Name / Branch: TALON LPE
Company Address: 408 W. Texas Ave. Artesia
Email: dadkins@talonlpe.com Phone No: 575 441 4835
Project Contact: D. ADKINS
Samplers's Name: D. ADKINS

Project Information

Project Name/Number: 700376.270.01
Project Location: Hackberry Hill #4
Invoice To: Plains. Camille Bryant
PO Number:

Analytical Information

TPH
BTEX
Total Chlorides

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	S-1	3'	5/16/2017	130p	S	1								✓	
2															
3	S-2	2'	5/16	150p	S	1								✓	
4															
5	S-3	3'	5/16	210p	S	1								✓	
6															
7															
8															
9															
10															

Turnaround Time (Business days) | Data Deliverable Information | Notes:

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY
- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

TAT Starts Day received by Lab, if received by 5:00 pm

FED-EX / UPS: Tracking #

Temp: 5.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.7

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date/Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/16/17 3pm	1	2	5-16-17	2
3	Relinquished by:	Date Time:	Received By: 3 Manan 5/18/17 10:14	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: [x] Cooler Temp: 5.4 Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

Final 1.000

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston
IOS #: 1043926

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Marithza Anaya **Date Sent:** 05/18/2017 11:54 AM
Received By: Santiago Ortega **Date Received:** 05/19/2017 09:10 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	2.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received with appropriate temperature?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 *Custody Seals Signed and dated for Containers/coolers	N/A	
#6 *IOS present?	Yes	
#7 Any missing/extra samples?	No	
#8 IOS agrees with sample label(s)/matrix?	Yes	
#9 Sample matrix/ properties agree with IOS?	Yes	
#10 Samples in proper container/ bottle?	Yes	
#11 Samples properly preserved?	Yes	
#12 Sample container(s) intact?	N/A	
#13 Sufficient sample amount for indicated test(s)?	Yes	
#14 All samples received within hold time?	No	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 05/19/2017
Maria Paula Guerra

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE

Date/ Time Received: 05/18/2017 10:14:00 AM

Work Order #: 553431

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.7
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	N/A
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Marithza Anaya Date: 05/18/2017
Marithza Anaya

Checklist reviewed by: Kelsey Brooks Date: 05/19/2017
Kelsey Brooks

Analytical Report 555091

for

Talon LPE

Project Manager: David Adkins

Hackberry Hill #4 Read and Stevens

700376.269.01

16-JUN-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

16-JUN-17

Project Manager: **David Adkins**
Talon LPE
408 W. Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **555091**
Hackberry Hill #4 Read and Stevens
Project Address: Hackberry Hill #4 Read and Stevens

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 555091. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 555091 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 555091

Talon LPE, Artesia, NM

Hackberry Hill #4 Read and Stevens

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Tank Battery	S	06-09-17 10:40	- 1 ft	555091-001

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3019644 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 555091

Talon LPE, Artesia, NM

Project Name: Hackberry Hill #4 Read and Stevens

Project Id: 700376.269.01
Contact: David Adkins
Project Location: Hackberry Hill #4 Read and Stevens

Date Received in Lab: Sat Jun-10-17 12:28 pm
Report Date: 16-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	555091-001					
	Field Id:	Tank Battery					
	Depth:	1 ft					
	Matrix:	SOIL					
	Sampled:	Jun-09-17 10:40					
BTEX by EPA 8021B	***Extracted:***	Jun-13-17 07:00					
	Analyzed:	Jun-13-17 09:44					
	Units/RL:	mg/kg RL					
Benzene		ND 0.00200					
Toluene		ND 0.00200					
Ethylbenzene		ND 0.00200					
m,p-Xylenes		ND 0.00401					
o-Xylene		ND 0.00200					
Total Xylenes		ND 0.00200					
Total BTEX		ND 0.00200					
Chloride by EPA 300	***Extracted:***	Jun-15-17 11:00					
	Analyzed:	Jun-15-17 15:45					
	Units/RL:	mg/kg RL					
Chloride		8.73 4.91					
TPH by Texas1005	***Extracted:***	Jun-12-17 16:00					
	Analyzed:	Jun-13-17 00:54					
	Units/RL:	mg/kg RL					
C6-C12 Range Hydrocarbons		ND 25.0					
C12-C28 Range Hydrocarbons		104 25.0					
C28-C35 Range Hydrocarbons		ND 25.0					
Total TPH		104 25.0					

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hill #4 Read and Stevens

Work Orders : 555091, **Project ID:** 700376.269.01

Lab Batch #: 3019519 **Sample:** 555091-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 00:54

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	51.0	49.9	102	70-130	
1-Chlorooctane	94.2	99.8	94	70-130	

Lab Batch #: 3019644 **Sample:** 555091-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 09:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 3019519 **Sample:** 725985-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 18:25

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	50.8	50.0	102	70-130	
1-Chlorooctane	93.1	100	93	70-130	

Lab Batch #: 3019644 **Sample:** 726036-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 08:39

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

Lab Batch #: 3019519 **Sample:** 725985-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 18:59

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	57.5	50.0	115	70-130	
1-Chlorooctane	104	100	104	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hill #4 Read and Stevens

Work Orders : 555091, **Project ID:** 700376.269.01

Lab Batch #: 3019644 **Sample:** 726036-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 07:01

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0326	0.0300	109	80-120	

Lab Batch #: 3019519 **Sample:** 725985-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 19:33

TPH by Texas1005	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	57.5	50.0	115	70-130	
1-Chlorooctane	103	100	103	70-130	

Lab Batch #: 3019644 **Sample:** 726036-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 07:17

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 3019519 **Sample:** 555067-021 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 20:42

TPH by Texas1005	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	55.8	49.9	112	70-130	
1-Chlorooctane	102	99.8	102	70-130	

Lab Batch #: 3019644 **Sample:** 555002-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 07:34

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0347	0.0300	116	80-120	
4-Bromofluorobenzene	0.0344	0.0300	115	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hill #4 Read and Stevens

Work Orders : 555091, **Project ID:** 700376.269.01

Lab Batch #: 3019519 **Sample:** 555067-021 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 21:15

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	58.0	50.0	116	70-130	
1-Chlorooctane	105	99.9	105	70-130	

Lab Batch #: 3019644 **Sample:** 555002-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 07:49

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	80-120	
4-Bromofluorobenzene	0.0299	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Hackberry Hill #4 Read and Stevens

Work Order #: 555091 **Project ID:** 700376.269.01

Analyst: ALJ **Date Prepared:** 06/13/2017 **Date Analyzed:** 06/13/2017

Lab Batch ID: 3019644 **Sample:** 726036-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.0974	98	0.101	0.0885	88	10	70-130	35	
Toluene	<0.00200	0.0998	0.0962	96	0.101	0.0839	83	14	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.108	108	0.101	0.0972	96	11	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.191	96	0.201	0.169	84	12	70-135	35	
o-Xylene	<0.00200	0.0998	0.101	101	0.101	0.0903	89	11	71-133	35	

Analyst: MGO **Date Prepared:** 06/15/2017 **Date Analyzed:** 06/15/2017

Lab Batch ID: 3019863 **Sample:** 726141-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	251	100	250	246	98	2	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Hackberry Hill #4 Read and Stevens

Work Order #: 555091 **Project ID:** 700376.269.01

Analyst: ARM **Date Prepared:** 06/12/2017 **Date Analyzed:** 06/12/2017

Lab Batch ID: 3019519 **Sample:** 725985-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Range Hydrocarbons	<25.0	1000	873	87	1000	932	93	7	75-125	25	
C12-C28 Range Hydrocarbons	<25.0	1000	923	92	1000	951	95	3	75-125	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hill #4 Read and Stevens

Work Order # : 555091 **Project ID:** 700376.269.01

Lab Batch ID: 3019644 **QC- Sample ID:** 555002-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/13/2017 **Date Prepared:** 06/13/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00380	0.190	0.148	78	0.186	0.146	78	1	70-130	35	
Toluene	<0.00380	0.190	0.117	62	0.186	0.109	59	7	70-130	35	X
Ethylbenzene	<0.00380	0.190	0.116	61	0.186	0.0977	53	17	71-129	35	X
m,p-Xylenes	<0.00760	0.380	0.190	50	0.372	0.154	41	21	70-135	35	X
o-Xylene	<0.00380	0.190	0.128	67	0.186	0.0843	45	41	71-133	35	XF

Lab Batch ID: 3019863 **QC- Sample ID:** 555092-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/15/2017 **Date Prepared:** 06/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	175	247	412	96	247	413	96	0	90-110	20	

Lab Batch ID: 3019863 **QC- Sample ID:** 555423-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/15/2017 **Date Prepared:** 06/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	41.0	248	297	103	248	292	101	2	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hill #4 Read and Stevens

Work Order # : 555091 **Project ID:** 700376.269.01

Lab Batch ID: 3019519 **QC- Sample ID:** 555067-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/12/2017 **Date Prepared:** 06/12/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Range Hydrocarbons	<25.0	998	998	100	999	1030	103	3	75-125	25	
C12-C28 Range Hydrocarbons	62.0	998	1060	100	999	1050	99	1	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

Page 1 Of 1

Revision 2016.1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford, TX (281) 240-4200 | El Paso, TX (915) 585-3443 | Midland, TX (432) 704-5440 | Phoenix, AZ (480) 355-0900 | Service Center- Amarillo, TX (806)678-4514
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www.xenco.com

Xenco Quote # | Xenco Job # 655091

Client / Reporting Information

Company Name / Branch: TALON / LPE
Company Address: 408 W. Texas Ave, Artesia NM
Email: dadkins@talonlpe.com Phone No: 575 441 4835
Project Contact: D. ADKINS
Samplers's Name: D-ADKINS

Project Information

Project Name/Number: 702247.001.01
Project Location: Hackberry Hill #4 Read and Stevens
Invoice To: TANK BATTERY
D-ADKINS - TALON/LPE
PO Number: 702247.001.01

Analytical Information

TPH | BTEX | Total Chlorides

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	Tank Battery	1'	6/9/2017	1040	S	1								✓	
2															
3															
4															
5															
6															
7															
8															
9															
10															

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

TAT Starts Day received by Lab, if received by 5:00 pm

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/9/17 230pm	1	2 Brittany	6/9	2
3	Dadkins	6-9-17 4:30pm	Julian M	6-10-17		4
5			5	Custody Seal #	Preserved where applicable	On Ice ✓

Temp: 4.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 4.1

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for t for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples re sample. Those terms will be enforced unless previously negotiated under a fully executed client contract.

Final 1.000

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE

Date/ Time Received: 06/10/2017 12:28:00 PM

Work Order #: 555091

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : r8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Marithza Anaya Date: 06/12/2017

Checklist reviewed by: Kelsey Brooks Date: 06/12/2017

Analytical Report 555092

for

Talon LPE

Project Manager: David Adkins

Hackberry Hills #4 Plains-Camille Bryant

700376.270.01

19-JUN-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

19-JUN-17

Project Manager: **David Adkins**
Talon LPE
408 W. Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **555092**
Hackberry Hills #4 Plains-Camille Bryant
Project Address: Hackberry Hills #4 Plains-Camille Bryant

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 555092. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 555092 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 555092

Talon LPE, Artesia, NM

Hackberry Hills #4 Plains-Camille Bryant

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-3	S	06-09-17 00:00	3.25 ft	555092-001
S-4	S	06-09-17 00:00	1.5 ft	555092-002
S-5	S	06-09-17 00:00	3 ft	555092-003
S-6	S	06-09-17 00:00	3 ft	555092-004
S-7	S	06-09-17 00:00	1 ft	555092-005
S-8	S	06-09-17 00:00	2 ft	555092-006
S-9	S	06-09-17 00:00	4 ft	555092-007
S-10	S	06-09-17 00:00	3 ft	555092-008
S-11	S	06-09-17 00:00	1.5 ft	555092-009
S-12	S	06-09-17 00:00	.75 ft	555092-010
S-13	S	06-09-17 00:00	2 ft	555092-011
S-14	S	06-09-17 00:00	2.5 ft	555092-012

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3019769 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.
Lab Sample ID 555092-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Benzene, Ethylbenzene, Toluene, m,p-Xylenes , o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 555092-006, -007, -008, -011.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.
Samples in the analytical batch are: 555092-006, -007, -008, -011

Batch: LBA-3019770 BTEX by EPA 8021B
Lab Sample ID 555092-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD).
Toluene, m,p-Xylenes recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 555092-001, -004, -005, -009, -010.
The Laboratory Control Sample for Toluene, m,p-Xylenes is within laboratory Control Limits, therefore the data was accepted.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3019774 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3019910 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analysis Summary 555092

Talon LPE, Artesia, NM

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Project Id: 700376.270.01
Contact: David Adkins
Project Location: Hackberry Hills #4 Plains-Camille Bryant

Date Received in Lab: Mon Jun-12-17 10:11 am
Report Date: 19-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	555092-001		555092-002		555092-003		555092-004		555092-005		555092-006	
	Field Id:	S-3		S-4		S-5		S-6		S-7		S-8	
	Depth:	3.25- ft		1.5- ft		3- ft		3- ft		1- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00	
BTEX by EPA 8021B	*Extracted:*	Jun-13-17 17:00		Jun-15-17 08:00		Jun-15-17 08:00		Jun-13-17 17:00		Jun-13-17 17:00		Jun-13-17 15:00	
	Analyzed:	Jun-14-17 13:52		Jun-15-17 10:57		Jun-15-17 11:13		Jun-14-17 14:41		Jun-14-17 13:36		Jun-14-17 01:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00358	ND	0.00364	ND	0.00366	ND	0.00202	ND	0.00200
Toluene		ND	0.00200	ND	0.00358	ND	0.00364	ND	0.00366	ND	0.00202	ND	0.00200
Ethylbenzene		ND	0.00200	ND	0.00358	ND	0.00364	ND	0.00366	ND	0.00202	ND	0.00200
m,p-Xylenes		ND	0.00399	ND	0.00717	ND	0.00727	ND	0.00733	ND	0.00405	ND	0.00399
o-Xylene		ND	0.00200	ND	0.00358	ND	0.00364	ND	0.00366	ND	0.00202	ND	0.00200
Total Xylenes		ND	0.00200	ND	0.00358	ND	0.00364	ND	0.00366	ND	0.00202	ND	0.00200
Total BTEX		ND	0.00200	ND	0.00358	ND	0.00364	ND	0.00366	ND	0.00202	ND	0.00200
Chloride by EPA 300	*Extracted:*	Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00	
	Analyzed:	Jun-15-17 15:52		Jun-15-17 16:00		Jun-15-17 16:07		Jun-15-17 16:15		Jun-15-17 16:23		Jun-15-17 16:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		467	4.95	49.7	4.98	381	4.93	928	4.98	175	4.94	189	4.92
TPH by Texas1005	*Extracted:*	Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00	
	Analyzed:	Jun-13-17 01:25		Jun-13-17 01:56		Jun-13-17 03:27		Jun-13-17 03:56		Jun-13-17 04:26		Jun-13-17 04:55	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Range Hydrocarbons		47.5	25.0	86.7	25.0	31.6	24.9	ND	24.9	77.5	24.9	114	24.9
C12-C28 Range Hydrocarbons		1420	25.0	1540	25.0	819	24.9	235	24.9	1350	24.9	1110	24.9
C28-C35 Range Hydrocarbons		ND	25.0	ND	25.0	ND	24.9	ND	24.9	ND	24.9	ND	24.9
Total TPH		1470	25.0	1630	25.0	851	24.9	235	24.9	1430	24.9	1220	24.9

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 555092

Talon LPE, Artesia, NM

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Project Id: 700376.270.01
Contact: David Adkins
Project Location: Hackberry Hills #4 Plains-Camille Bryant

Date Received in Lab: Mon Jun-12-17 10:11 am
Report Date: 19-JUN-17
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	555092-007		555092-008		555092-009		555092-010		555092-011		555092-012	
	Field Id:	S-9		S-10		S-11		S-12		S-13		S-14	
	Depth:	4- ft		3- ft		1.5- ft		.75- ft		2- ft		2.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00		Jun-09-17 00:00	
BTEX by EPA 8021B	*Extracted:*	Jun-13-17 15:00		Jun-13-17 15:00		Jun-13-17 17:00		Jun-13-17 17:00		Jun-13-17 15:00		Jun-14-17 15:00	
	Analyzed:	Jun-14-17 02:05		Jun-14-17 02:21		Jun-14-17 14:58		Jun-14-17 15:34		Jun-14-17 01:33		Jun-14-17 23:57	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.00200	ND	0.00199	0.00461	0.00351	ND	0.00346	ND	0.00199	ND	0.00358
Toluene		ND	0.00200	0.00293	0.00199	0.145	0.00351	ND	0.00346	ND	0.00199	ND	0.00358
Ethylbenzene		ND	0.00200	ND	0.00199	0.115	0.00351	ND	0.00346	ND	0.00199	ND	0.00358
m,p-Xylenes		ND	0.00401	0.0105	0.00398	0.312	0.00702	0.0206	0.00692	ND	0.00398	ND	0.00717
o-Xylene		ND	0.00200	ND	0.00199	0.178	0.00351	ND	0.00346	ND	0.00199	ND	0.00358
Total Xylenes		ND	0.00200	0.0105	0.00199	0.490	0.00351	0.0206	0.00346	ND	0.00199	ND	0.00358
Total BTEX		ND	0.00200	0.0134	0.00199	0.755	0.00351	0.0206	0.00346	ND	0.00199	ND	0.00358
Chloride by EPA 300	*Extracted:*	Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00		Jun-15-17 11:00	
	Analyzed:	Jun-15-17 16:53		Jun-15-17 17:16		Jun-15-17 17:23		Jun-15-17 17:31		Jun-15-17 17:39		Jun-15-17 17:46	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		ND	4.93	31.3	4.95	28.4	4.96	28.5	4.90	3550	24.7	74.5	4.94
TPH by Texas1005	*Extracted:*	Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00		Jun-12-17 16:00	
	Analyzed:	Jun-13-17 05:24		Jun-13-17 05:53		Jun-13-17 08:16		Jun-13-17 06:49		Jun-13-17 07:18		Jun-13-17 07:47	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Range Hydrocarbons		ND	24.9	86.4	25.0	1360	125	61.9	25.0	ND	24.9	38.0	24.9
C12-C28 Range Hydrocarbons		ND	24.9	1380	25.0	7760	125	1250	25.0	155	24.9	559	24.9
C28-C35 Range Hydrocarbons		ND	24.9	ND	25.0	ND	125	ND	25.0	ND	24.9	ND	24.9
Total TPH		ND	24.9	1470	25.0	9120	125	1310	25.0	155	24.9	597	24.9

Kelsey Brooks
Project Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019519 **Sample:** 555092-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 01:25

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	63.0	50.0	126	70-130	
1-Chlorooctane	95.7	100	96	70-130	

Lab Batch #: 3019519 **Sample:** 555092-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 01:56

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	60.9	50.0	122	70-130	
1-Chlorooctane	90.9	99.9	91	70-130	

Lab Batch #: 3019519 **Sample:** 555092-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 03:27

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	57.6	49.9	115	70-130	
1-Chlorooctane	93.7	99.7	94	70-130	

Lab Batch #: 3019519 **Sample:** 555092-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 03:56

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	49.0	49.8	98	70-130	
1-Chlorooctane	87.9	99.6	88	70-130	

Lab Batch #: 3019519 **Sample:** 555092-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 04:26

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	63.0	49.9	126	70-130	
1-Chlorooctane	93.7	99.7	94	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019519 **Sample:** 555092-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 04:55

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	59.3	49.8	119	70-130	
1-Chlorooctane	97.0	99.6	97	70-130	

Lab Batch #: 3019519 **Sample:** 555092-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 05:24

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	50.0	49.8	100	70-130	
1-Chlorooctane	92.0	99.6	92	70-130	

Lab Batch #: 3019519 **Sample:** 555092-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 05:53

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	63.1	50.0	126	70-130	
1-Chlorooctane	94.5	99.9	95	70-130	

Lab Batch #: 3019519 **Sample:** 555092-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 06:49

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	59.8	50.0	120	70-130	
1-Chlorooctane	94.4	99.9	94	70-130	

Lab Batch #: 3019519 **Sample:** 555092-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 07:18

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	50.6	49.9	101	70-130	
1-Chlorooctane	91.7	99.7	92	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019519 **Sample:** 555092-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 07:47

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	56.1	49.9	112	70-130	
1-Chlorooctane	95.3	99.7	96	70-130	

Lab Batch #: 3019519 **Sample:** 555092-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/13/17 08:16

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	55.0	49.9	110	70-130	
1-Chlorooctane	118	99.8	118	70-130	

Lab Batch #: 3019769 **Sample:** 555092-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 01:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0287	0.0300	96	80-120	
4-Bromofluorobenzene	0.0258	0.0300	86	80-120	

Lab Batch #: 3019769 **Sample:** 555092-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 01:49

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0251	0.0300	84	80-120	
4-Bromofluorobenzene	0.0246	0.0300	82	80-120	

Lab Batch #: 3019769 **Sample:** 555092-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 02:05

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0282	0.0300	94	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019769 **Sample:** 555092-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 02:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 3019770 **Sample:** 555092-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 13:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0298	0.0300	99	80-120	
4-Bromofluorobenzene	0.0341	0.0300	114	80-120	

Lab Batch #: 3019770 **Sample:** 555092-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 13:52

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 3019770 **Sample:** 555092-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 14:41

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3019770 **Sample:** 555092-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 14:58

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0347	0.0300	116	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019770 **Sample:** 555092-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 15:34

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 3019774 **Sample:** 555092-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 23:57

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0275	0.0300	92	80-120	

Lab Batch #: 3019910 **Sample:** 555092-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/15/17 10:57

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0247	0.0300	82	80-120	

Lab Batch #: 3019910 **Sample:** 555092-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/15/17 11:13

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
1,4-Difluorobenzene	0.0328	0.0300	109	80-120	
4-Bromofluorobenzene	0.0307	0.0300	102	80-120	

Lab Batch #: 3019519 **Sample:** 725985-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 18:25

TPH by Texas1005 Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	SURROGATE RECOVERY STUDY				
o-Terphenyl	50.8	50.0	102	70-130	
1-Chlorooctane	93.1	100	93	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019769 **Sample:** 726090-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 01:16

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0289	0.0300	96	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 3019770 **Sample:** 726122-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 13:19

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0279	0.0300	93	80-120	

Lab Batch #: 3019774 **Sample:** 726126-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 22:04

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0277	0.0300	92	80-120	

Lab Batch #: 3019910 **Sample:** 726185-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/15/17 10:08

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0270	0.0300	90	80-120	

Lab Batch #: 3019519 **Sample:** 725985-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 18:59

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	57.5	50.0	115	70-130	
1-Chlorooctane	104	100	104	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092,

Project ID: 700376.270.01

Lab Batch #: 3019769 **Sample:** 726090-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 23:40

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3019770 **Sample:** 726122-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 11:42

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 3019774 **Sample:** 726126-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 20:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0299	0.0300	100	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

Lab Batch #: 3019910 **Sample:** 726185-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/15/17 08:31

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0317	0.0300	106	80-120	

Lab Batch #: 3019519 **Sample:** 725985-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/12/17 19:33

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	57.5	50.0	115	70-130	
1-Chlorooctane	103	100	103	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019769 **Sample:** 726090-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/13/17 23:56

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 3019770 **Sample:** 726122-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 11:58

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 3019774 **Sample:** 726126-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/14/17 20:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 3019910 **Sample:** 726185-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 06/15/17 08:47

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 3019519 **Sample:** 555067-021 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 20:42

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	55.8	49.9	112	70-130	
1-Chlorooctane	102	99.8	102	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019769 **Sample:** 555092-011 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 00:12

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 3019770 **Sample:** 555092-005 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 12:14

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0325	0.0300	108	80-120	
4-Bromofluorobenzene	0.0348	0.0300	116	80-120	

Lab Batch #: 3019774 **Sample:** 555170-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 21:01

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0316	0.0300	105	80-120	

Lab Batch #: 3019910 **Sample:** 555245-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/15/17 09:03

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 3019519 **Sample:** 555067-021 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/12/17 21:15

TPH by Texas1005 Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl	58.0	50.0	116	70-130	
1-Chlorooctane	105	99.9	105	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Orders : 555092, **Project ID:** 700376.270.01

Lab Batch #: 3019769 **Sample:** 555092-011 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 00:28

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0357	0.0300	119	80-120	

Lab Batch #: 3019770 **Sample:** 555092-005 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 12:31

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0356	0.0300	119	80-120	

Lab Batch #: 3019774 **Sample:** 555170-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/14/17 21:17

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0263	0.0300	88	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

Lab Batch #: 3019910 **Sample:** 555245-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 06/15/17 09:19

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Order #: 555092 **Project ID:** 700376.270.01

Analyst: ALJ **Date Prepared:** 06/13/2017 **Date Analyzed:** 06/13/2017

Lab Batch ID: 3019769 **Sample:** 726090-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.0856	86	0.100	0.0795	80	7	70-130	35	
Toluene	<0.00200	0.0998	0.0813	81	0.100	0.0815	82	0	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0916	92	0.100	0.0845	85	8	71-129	35	
m,p-Xylenes	<0.00399	0.200	0.158	79	0.200	0.145	73	9	70-135	35	
o-Xylene	<0.00200	0.0998	0.0858	86	0.100	0.0821	82	4	71-133	35	

Analyst: ALJ **Date Prepared:** 06/13/2017 **Date Analyzed:** 06/14/2017

Lab Batch ID: 3019770 **Sample:** 726122-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0910	91	0.100	0.0841	84	8	70-130	35	
Toluene	<0.00200	0.100	0.0899	90	0.100	0.0818	82	9	70-130	35	
Ethylbenzene	<0.00200	0.100	0.102	102	0.100	0.0951	95	7	71-129	35	
m,p-Xylenes	<0.00400	0.200	0.178	89	0.201	0.165	82	8	70-135	35	
o-Xylene	<0.00200	0.100	0.0960	96	0.100	0.0882	88	8	71-133	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Order #: 555092 **Project ID:** 700376.270.01

Analyst: ALJ **Date Prepared:** 06/14/2017 **Date Analyzed:** 06/14/2017

Lab Batch ID: 3019774 **Sample:** 726126-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0860	85	0.100	0.0843	84	2	70-130	35	
Toluene	<0.00202	0.101	0.0827	82	0.100	0.0777	78	6	70-130	35	
Ethylbenzene	<0.00202	0.101	0.0972	96	0.100	0.0903	90	7	71-129	35	
m,p-Xylenes	<0.00404	0.202	0.167	83	0.200	0.154	77	8	70-135	35	
o-Xylene	<0.00202	0.101	0.0948	94	0.100	0.0864	86	9	71-133	35	

Analyst: ALJ **Date Prepared:** 06/15/2017 **Date Analyzed:** 06/15/2017

Lab Batch ID: 3019910 **Sample:** 726185-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0791	78	0.101	0.0779	77	2	70-130	35	
Toluene	<0.00202	0.101	0.0771	76	0.101	0.0724	72	6	70-130	35	
Ethylbenzene	<0.00202	0.101	0.0880	87	0.101	0.0819	81	7	71-129	35	
m,p-Xylenes	<0.00403	0.202	0.150	74	0.202	0.145	72	3	70-135	35	
o-Xylene	<0.00202	0.101	0.0805	80	0.101	0.0822	81	2	71-133	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Order #: 555092 **Project ID:** 700376.270.01

Analyst: MGO **Date Prepared:** 06/15/2017 **Date Analyzed:** 06/15/2017

Lab Batch ID: 3019863 **Sample:** 726141-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	251	100	250	246	98	2	90-110	20	

Analyst: ARM **Date Prepared:** 06/12/2017 **Date Analyzed:** 06/12/2017

Lab Batch ID: 3019519 **Sample:** 725985-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Range Hydrocarbons	<25.0	1000	873	87	1000	932	93	7	75-125	25	
C12-C28 Range Hydrocarbons	<25.0	1000	923	92	1000	951	95	3	75-125	25	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Order # : 555092 **Project ID:** 700376.270.01

Lab Batch ID: 3019769 **QC- Sample ID:** 555092-011 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/14/2017 **Date Prepared:** 06/13/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.0518	51	0.101	0.0436	43	17	70-130	35	X
Toluene	<0.00202	0.101	0.0452	45	0.101	0.0568	56	23	70-130	35	X
Ethylbenzene	<0.00202	0.101	0.0385	38	0.101	0.0399	40	4	71-129	35	X
m,p-Xylenes	<0.00404	0.202	0.0603	30	0.203	0.0707	35	16	70-135	35	X
o-Xylene	<0.00202	0.101	0.0338	33	0.101	0.0519	51	42	71-133	35	XF

Lab Batch ID: 3019770 **QC- Sample ID:** 555092-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/14/2017 **Date Prepared:** 06/13/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.100	0.0749	75	0.101	0.0752	74	0	70-130	35	
Toluene	<0.00200	0.100	0.0709	71	0.101	0.0701	69	1	70-130	35	X
Ethylbenzene	<0.00200	0.100	0.0806	81	0.101	0.0801	79	1	71-129	35	
m,p-Xylenes	<0.00401	0.200	0.144	72	0.202	0.137	68	5	70-135	35	X
o-Xylene	<0.00200	0.100	0.0803	80	0.101	0.0767	76	5	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Order # : 555092 **Project ID:** 700376.270.01

Lab Batch ID: 3019774 **QC- Sample ID:** 555170-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/14/2017 **Date Prepared:** 06/14/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.0678	68	0.0994	0.0406	41	50	70-130	35	XF
Toluene	<0.00200	0.0998	0.0625	63	0.0994	0.0451	45	32	70-130	35	X
Ethylbenzene	<0.00200	0.0998	0.0567	57	0.0994	0.0457	46	21	71-129	35	X
m,p-Xylenes	<0.00399	0.200	0.103	52	0.199	0.0695	35	39	70-135	35	XF
o-Xylene	<0.00200	0.0998	0.0590	59	0.0994	0.0504	51	16	71-133	35	X

Lab Batch ID: 3019910 **QC- Sample ID:** 555245-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/15/2017 **Date Prepared:** 06/15/2017 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00201	0.101	0.0572	57	0.100	0.0546	55	5	70-130	35	X
Toluene	<0.00201	0.101	0.0740	73	0.100	0.0537	54	32	70-130	35	X
Ethylbenzene	<0.00201	0.101	0.0634	63	0.100	0.0617	62	3	71-129	35	X
m,p-Xylenes	<0.00402	0.201	0.111	55	0.200	0.105	53	6	70-135	35	X
o-Xylene	<0.00201	0.101	0.0646	64	0.100	0.0620	62	4	71-133	35	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hills #4 Plains-Camille Bryant

Work Order # : 555092 **Project ID:** 700376.270.01

Lab Batch ID: 3019863 **QC- Sample ID:** 555092-005 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/15/2017 **Date Prepared:** 06/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	175	247	412	96	247	413	96	0	90-110	20	

Lab Batch ID: 3019863 **QC- Sample ID:** 555423-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/15/2017 **Date Prepared:** 06/15/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	41.0	248	297	103	248	292	101	2	90-110	20	

Lab Batch ID: 3019519 **QC- Sample ID:** 555067-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 06/12/2017 **Date Prepared:** 06/12/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by Texas1005 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Range Hydrocarbons	<25.0	998	998	100	999	1030	103	3	75-125	25	
C12-C28 Range Hydrocarbons	62.0	998	1060	100	999	1050	99	1	75-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

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Revision 2016.1

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote # | Xenco Job # 556092

Client / Reporting Information

Company Name / Branch: TALON LPE
Company Address: 408 W. Texas Artesia NM
Email: dadkins@talonlpe.com
Phone No: 575 441 4835
Project Contact: D. ADKINS
Samplers's Name: D. ADKINS

Project Information

Project Name/Number: 700376.270.01
Project Location: Hackberry Hills #4
Invoice To: PLAINS – Camille Bryant SRS# 2017-077
PO Number:

Analytical Information

TPH | BTEX | Total Chlorides

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	S-3	3.25'	6/9/2017		S	1								✓	
2	S-4	1.5'	6/9		S	1								✓	
3	S-5	3'	6/9		S	1								✓	
4	S-6	3'	6/9		S	1								✓	
5	S-7	1.0	6/9		S	1								✓	
6	S-8	2'	6/9		S	1								✓	
7	S-9	4'	6/9		S	1								✓	
8	S-10	3'	6/9		S	1								✓	
9	S-11	1.5'	6/9		S	1								✓	
10	S-12	0.75'	6/9		S	1								✓	

Turnaround Time (Business days)

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		6/9/17 230 pm	Paul Mejia	Brittany	6/9	2
2	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3	X Paul Mejia	6-9-17 4:30 pm	Julian M	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice
			6-10-17 12:20			✓

Temp: 4.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 4.1

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for t for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples rec sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

CHAIN OF CUSTODY

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Revision 2016.1

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

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Xenco Quote # | Xenco Job #

Client / Reporting Information

Company Name / Branch: TALON LPE
Company Address: 408 W. Texas Artesia NM
Email: dadkins@talonlpe.com Phone No: 575 441 4835
Project Contact: D. ADKINS
Samplers's Name: D. ADKINS

Project Information

Project Name/Number: 700376.270.01
Project Location: Hackberry Hills #4
Invoice To: PLAINS Camille Bryant
PO Number: SRS# 2017-077

Analytical Information

TPH | BTEX | Total Chlorides

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	S-13	2'	6/9 2017		S	1								/	
2	S-14	2.5'	6/9		S	1								/	
3															
4															
5															
6															
7															
8															
9															
10															

Turnaround Time (Business days) | Data Deliverable Information | Notes:

- [ ] Same Day TAT
- [x] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY
- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

TAT Starts Day received by Lab, if received by 5:00 pm

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1		6/9/17 2:30 pm	1 Saul Mejia	2 Brittany	6/9	2
3	Saul Mejia	6-9 . 4:30 pm	3 Julian M	4		4
5			5	Custody Seal #	Preserved where applicable	On Ice
			6-10-17 12:28			✓

Temp: 4.3 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 4.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE

Date/ Time Received: 06/12/2017 10:11:52 AM

Work Order #: 555092

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : r8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	4.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Marithza Anaya Date: 06/12/2017

Marithza Anaya

Checklist reviewed by: Kelsey Brooks Date: 06/12/2017

Kelsey Brooks

Analytical Report 557665

for

Talon LPE

Project Manager: David Adkins

Hackberry Hills #4

700376.270.01

18-JUL-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Table of Contents

18-JUL-17

Project Manager: **David Adkins**
Talon LPE
408 W. Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **557665**
Hackberry Hills #4
Project Address: Hackberry Hills #4

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 557665. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 557665 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 557665

Talon LPE, Artesia, NM

Hackberry Hills #4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-13A	S	06-30-17 11:30		557665-001
S-15	S	06-30-17 11:40		557665-002
S-16	S	06-30-17 11:50		557665-003
S-17	S	06-30-17 12:00		557665-004
S-18	S	06-30-17 12:10		557665-005

CASE NARRATIVE

Client Name: Talon LPE

Project Name: Hackberry Hills #4

Project ID: *700376.270.01*
Work Order Number(s): *557665*

Report Date: *18-JUL-17*
Date Received: *07/14/2017*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results
557665
Talon LPE, Artesia, NM
Hackberry Hills #4

Sample Id: **S-13A** Matrix: Soil Sample Depth:
Lab Sample Id: 557665-001 Date Collected: 06.30.17 11.30 Date Received: 07.14.17 10.06
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: MGO % Moist: Tech: MGO
Seq Number: 3022517 Date Prep: 07.18.17 09.30
Prep seq: 727803

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**47.5**	4.92	0.845	mg/kg	07.18.17 10:35		1

Sample Id: **S-15** Matrix: Soil Sample Depth:
Lab Sample Id: 557665-002 Date Collected: 06.30.17 11.40 Date Received: 07.14.17 10.06
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: MGO % Moist: Tech: MGO
Seq Number: 3022517 Date Prep: 07.18.17 09.30
Prep seq: 727803

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**59.6**	4.97	0.853	mg/kg	07.18.17 10:58		1

Sample Id: **S-16** Matrix: Soil Sample Depth:
Lab Sample Id: 557665-003 Date Collected: 06.30.17 11.50 Date Received: 07.14.17 10.06
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: MGO % Moist: Tech: MGO
Seq Number: 3022517 Date Prep: 07.18.17 09.30
Prep seq: 727803

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**73.2**	4.96	0.852	mg/kg	07.18.17 11:06		1

Sample Id: **S-17** Matrix: Soil Sample Depth:
Lab Sample Id: 557665-004 Date Collected: 06.30.17 12.00 Date Received: 07.14.17 10.06
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: MGO % Moist: Tech: MGO
Seq Number: 3022517 Date Prep: 07.18.17 09.30
Prep seq: 727803

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**29.8**	4.96	0.852	mg/kg	07.18.17 11:14		1

Certificate of Analytical Results
557665
Talon LPE, Artesia, NM
Hackberry Hills #4

Sample Id: **S-18** Matrix: Soil Sample Depth:

Lab Sample Id: 557665-005 Date Collected: 06.30.17 12.10 Date Received: 07.14.17 10.06

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Analyst: MGO % Moist: Tech: MGO

Seq Number: 3022517 Date Prep: 07.18.17 09.30

Prep seq: 727803

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**130**	4.94	0.848	mg/kg	07.18.17 11:21		1

Certificate of Analytical Results
557665
Talon LPE, Artesia, NM
Hackberry Hills #4

Sample Id:	**727803-1-BLK**	Matrix:	Solid	Sample Depth:	
Lab Sample Id:	727803-1-BLK	Date Collected:		Date Received:	
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Analyst:	MGO	% Moist:		Tech:	MGO
Seq Number:	3022517	Date Prep:	07.18.17 09.30		
		Prep seq:	727803		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	07.18.17 10:12	U	1

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

BS / BSD Recoveries

Project Name: Hackberry Hills #4

Work Order #: 557665 **Project ID:** 700376.270.01

Analyst: MGO **Date Prepared:** 07/18/2017 **Date Analyzed:** 07/18/2017

Lab Batch ID: 3022517 **Sample:** 727803-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.858	250	254	102	250	257	103	1	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hills #4

Work Order # : 557665 **Project ID:** 700376.270.01

Lab Batch ID: 3022517 **QC- Sample ID:** 557365-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/18/2017 **Date Prepared:** 07/18/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	82.6	246	334	102	246	335	103	0	90-110	20	

Lab Batch ID: 3022517 **QC- Sample ID:** 557665-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 07/18/2017 **Date Prepared:** 07/18/2017 **Analyst:** MGO

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	47.5	246	318	110	246	316	109	1	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

Page 1 Of 1

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas, Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 557606S

Client / Reporting Information

Company Name / Branch: Talon/LPE

Company Address: 408 W. Texas, Artesia NM

Email: dadkins@talonlpe.com Phone No: 575-441-4835

Project Contact: D. Adkins

Samplers's Name: Kim Wilson

Project Information

Project Name/Number: 700376.270.01

Project Location: Hackberry Hills #4

Invoice To: Plains Camille Bryant

PO Number: SRS # 2017-077

Analytical Information

Chlorides + total

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	S-13 A		6/30/17	11:30	S	1								✓	
2	S-15			11:40										✓	
3	S-16			11:50										✓	
4	S-17			12:00										✓	
5	S-18			12:10										✓	
6															
7															
8															
9															
10															

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

3 DAY TAT PLS. Thx.

Temp: 32.1 IR ID:R-8

CF:(0-6: -0.2°C)

(6-23: +0.2°C)

Corrected Temp: 32.3

FED-EX / UPS: T

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1	Kim Wilson	7/13/17 1:00	1	2 Brittany Cox	7/14/17 16:00	2
3	Relinquished by:	Date Time: 7-14-17	Received By: 3 ARTESIA	Relinquished By: 4	Date Time: 7-15-17 15:20	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 30.9°C / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

Final 1.000

Page 12 of 13

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE

Date/ Time Received: 07/14/2017 10:06:00 AM

Work Order #: 557665

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	32.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	No
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Jessica Kramer
Jessica Kramer
Date: 07/17/2017

Checklist reviewed by: Kelsey Brooks
Kelsey Brooks
Date: 07/17/2017

Analytical Report 561861

for

Talon LPE

Project Manager: David Adkins

Hackberry Hills #4

700376.270.0

05-SEP-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Table of Contents

05-SEP-17

Project Manager: **David Adkins**
Talon LPE
408 W. Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **561861**
Hackberry Hills #4
Project Address: Carlsbad NM

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 561861. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 561861 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 561861

Talon LPE, Artesia, NM

Hackberry Hills #4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-11	S	08-29-17 15:37		561861-001

CASE NARRATIVE

Client Name: Talon LPE

Project Name: Hackberry Hills #4

Project ID: *700376.270.0*
Work Order Number(s): *561861*

Report Date: *05-SEP-17*
Date Received: *08/31/2017*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results
561861
Talon LPE, Artesia, NM
Hackberry Hills #4

Sample Id: **S-11** Matrix: Soil Sample Depth:

Lab Sample Id: 561861-001 Date Collected: 08.29.17 15.37 Date Received: 08.31.17 14.08

Analytical Method: TPH by SW8015 Mod Prep Method: 1005

Analyst: ARM % Moist: Tech: ARM

Seq Number: 3026616 Date Prep: 09.02.17 14.00

Prep seq: 730330

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**37.5**	15.0	7.99	mg/kg	09.03.17 04:41		1
Diesel Range Organics (DRO)	C10C28DRO	**4380**	15.0	8.12	mg/kg	09.03.17 04:41		1
Oil Range Hydrocarbons (ORO)	PHCG2835	**1140**	15.0	8.12	mg/kg	09.03.17 04:41		1
Total TPH	PHC635	**5560**		7.99	mg/kg	09.03.17 04:41		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	98	70 - 135	%		
o-Terphenyl	81	70 - 135	%		

Certificate of Analytical Results
561861
Talon LPE, Artesia, NM
Hackberry Hills #4

Sample Id:	**730330-1-BLK**	Matrix:	Solid	Sample Depth:	
Lab Sample Id:	730330-1-BLK	Date Collected:		Date Received:	
Analytical Method:	TPH by SW8015 Mod			Prep Method:	1005
Analyst:	ARM	% Moist:		Tech:	ARM
Seq Number:	3026616	Date Prep:	09.02.17 14.00		
		Prep seq:	730330		

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<8.00	15.0	8.00	mg/kg	09.03.17 01:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<8.13	15.0	8.13	mg/kg	09.03.17 01:56	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<8.13	15.0	8.13	mg/kg	09.03.17 01:56	U	1
Total TPH	PHC635	<8.00		8.00	mg/kg	09.03.17 01:56	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	105	70 - 135	%		
o-Terphenyl	104	70 - 135	%		

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4

Work Orders : 561861, **Project ID:** 700376.270.0

Lab Batch #: 3026616 **Sample:** 730330-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/03/17 01:56

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	52.0	50.0	104	70-135	

Lab Batch #: 3026616 **Sample:** 730330-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/03/17 02:16

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Lab Batch #: 3026616 **Sample:** 730330-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/03/17 02:37

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	51.1	50.0	102	70-135	

Lab Batch #: 3026616 **Sample:** 561383-008 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/03/17 03:18

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.4	99.9	99	70-135	
o-Terphenyl	48.1	50.0	96	70-135	

Lab Batch #: 3026616 **Sample:** 561383-008 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/03/17 03:39

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.7	99.8	94	70-135	
o-Terphenyl	45.1	49.9	90	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Hackberry Hills #4

Work Order #: 561861 **Project ID:** 700376.270.0

Analyst: ARM **Date Prepared:** 09/02/2017 **Date Analyzed:** 09/03/2017

Lab Batch ID: 3026616 **Sample:** 730330-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	891	89	1000	911	91	2	70-135	35	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	1000	1030	103	1	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hills #4

Work Order # : 561861 **Project ID:** 700376.270.0

Lab Batch ID: 3026616 **QC- Sample ID:** 561383-008 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/03/2017 **Date Prepared:** 09/02/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	999	886	89	998	940	94	6	70-135	35	
Diesel Range Organics (DRO)	41.5	999	1020	98	998	1020	98	0	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

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Revision 2016.1

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote # | Xenco Job # 561926 1

Client / Reporting Information

Company Name / Branch: TALON / LPE
Company Address: 408 W. Texas Ave, Artesia NM
Email: dadkins@talonlpe.com
Phone No: 575 441.4835
Project Contact: D. ADKINS
Samplers's Name: D. ADKINS

Project Information

Project Name/Number: 700376.270.01
Project Location: Hackberry Hills #4 Carlsbad, NM
Invoice To: PLAINS C.AMILLE BRYANT
PO Number: SRS# 2017-077

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE/ICE	TPH	Field Comments
1	S-11		8/29/17	1537	S	1								✓	✓	
2																
3																
4																
5																
6																
7																
8																
9																
10																

Turnaround Time (Business days)

- [ ] Same Day TAT
- [X] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

FED-E

Notes:

Hackberry Hills #4

Temp: 1.6 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 1.4

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		8/31/17 1205	1	2		2
3	Relinquished by:	Date Time: 8/31/17 205	Received By: 3	Relinquished By: 4	Date Time: 8/31 2:08	Received By: 4 9/1/17 130
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. 0.7 / Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

ORIGIN ID:HOBA (575) 392-7550
**
MAIL SERVICES ETC, LLC
4008 N GRIMES

HOBBS, NM 88240
UNITED STATES US

SHIP DATE: 31AUG17
ACTWGT: 15.00 LB MAN
CAD: 0909328/CAFE3012
DIMS: 15x11x11 IN

BILL RECIPIENT

TO XENCO LABORATORIES
XENCO LABORATORIES
1211 W FLORIDA AVE

MIDLAND TX 79701
(432) 563-1800
INV:
PO:
REF:
DEPT:

549C1/FF19/727F

FedEx Express

J161216181801uv

TRK# 0201 6606 3915 0668

FRI - 01 SEP 10:30A
PRIORITY OVERNIGHT

41 MAFA

79701
TX-US LBB

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE

Date/ Time Received: 08/31/2017 02:08:00 PM

Work Order #: 561861

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Jessica Kramer Date: 09/01/2017
Jessica Kramer

Checklist reviewed by: Kelsey Brooks Date: 09/05/2017
Kelsey Brooks

Analytical Report 563017

for

Talon LPE

Project Manager: David Adkins

Hackberry Hills #4

700376.270.01

20-SEP-17

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

Table of Contents

20-SEP-17

Project Manager: **David Adkins**
Talon LPE
408 W. Texas St.
Artesia, NM 88210

Reference: XENCO Report No(s): **563017**
Hackberry Hills #4
Project Address: Hackberry Hills #4

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 563017. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 563017 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 563017

Talon LPE, Artesia, NM

Hackberry Hills #4

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-19	S	09-13-17 15:50		563017-001

CASE NARRATIVE

Client Name: Talon LPE
Project Name: Hackberry Hills #4

Project ID: *700376.270.01*
Work Order Number(s): *563017*

Report Date: *20-SEP-17*
Date Received: *09/18/2017*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analytical Results
563017
Talon LPE, Artesia, NM
Hackberry Hills #4

Sample Id: **S-19** Matrix: Soil Sample Depth:

Lab Sample Id: 563017-001 Date Collected: 09.13.17 15.50 Date Received: 09.18.17 15.48

Analytical Method: TPH by SW8015 Mod Prep Method: 1005

Analyst: ARM % Moist: Tech: ARM

Seq Number: 3028150 Date Prep: 09.19.17 15.00

Prep seq: 731244

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.99	15.0	7.99	mg/kg	09.19.17 21:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**30.4**	15.0	8.11	mg/kg	09.19.17 21:26		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<8.11	15.0	8.11	mg/kg	09.19.17 21:26	U	1
Total TPH	PHC635	**30.4**		7.99	mg/kg	09.19.17 21:26		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	96	70 - 135	%		

Certificate of Analytical Results
563017
Talon LPE, Artesia, NM
Hackberry Hills #4

Sample Id: **731244-1-BLK**	Matrix: Solid	Sample Depth:
Lab Sample Id: 731244-1-BLK	Date Collected:	Date Received:
Analytical Method: TPH by SW8015 Mod		Prep Method: 1005
Analyst: ARM	% Moist:	Tech: ARM
Seq Number: 3028150	Date Prep: 09.19.17 15.00	
	Prep seq: 731244	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<8.00	15.0	8.00	mg/kg	09.19.17 20:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<8.13	15.0	8.13	mg/kg	09.19.17 20:26	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<8.13	15.0	8.13	mg/kg	09.19.17 20:26	U	1
Total TPH	PHC635	<8.00		8.00	mg/kg	09.19.17 20:26	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	98	70 - 135	%		

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

\+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Hackberry Hills #4

Work Orders : 563017, **Project ID:** 700376.270.01

Lab Batch #: 3028150 **Sample:** 731244-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/19/17 20:26

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	49.0	50.0	98	70-135	

Lab Batch #: 3028150 **Sample:** 731244-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/19/17 20:46

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-135	
o-Terphenyl	52.1	50.0	104	70-135	

Lab Batch #: 3028150 **Sample:** 731244-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 09/19/17 21:06

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	50.8	50.0	102	70-135	

Lab Batch #: 3028150 **Sample:** 563017-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/19/17 21:46

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	49.9	50.0	100	70-135	

Lab Batch #: 3028150 **Sample:** 563017-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 09/19/17 22:06

TPH by SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.8	99.9	99	70-135	
o-Terphenyl	47.2	50.0	94	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

BS / BSD Recoveries

Project Name: Hackberry Hills #4

Work Order #: 563017 **Project ID:** 700376.270.01

Analyst: ARM **Date Prepared:** 09/19/2017 **Date Analyzed:** 09/19/2017

Lab Batch ID: 3028150 **Sample:** 731244-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	940	94	1000	931	93	1	70-135	35	
Diesel Range Organics (DRO)	<8.13	1000	1070	107	1000	1090	109	2	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: Hackberry Hills #4

Work Order # : 563017 **Project ID:** 700376.270.01

Lab Batch ID: 3028150 **QC- Sample ID:** 563017-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 09/19/2017 **Date Prepared:** 09/19/2017 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	1030	103	999	1060	106	3	70-135	35	
Diesel Range Organics (DRO)	30.4	1000	1160	113	999	1130	110	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

Page 1 Of 1

Revision 2016.1

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

www.xenco.com

Xenco Quote # | Xenco Job # 563017

Client / Reporting Information

Company Name / Branch: TALON / LPE
Company Address: 408 W. Texas Ave, Artesia NM
Email: dadkins@talonlpe.com | Phone No:
Project Contact: D. ADKINS
Samplers's Name: D. ADKINS

Project Information

Project Name/Number: 700376.270.01
Project Location: Hackberry Hills #4
Invoice To: PLAINS Camille Bryant
PO Number: 2017-077

Analytical Information

TPH (8015 Mod.) ✓

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Field Comments
1	S-19		9/13/17	1550	S	1								✓	Further excavation
2															activities.
3															
4															
5															
6															
7															
8															
9															
10															

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☒ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ Level II Report with TRRP checklist

Temp: 6.0 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 5.8

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		9/15/17 1340	1 Robert Munoz	2 Mail Service	3:48	2 RG
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4 9-18-17 815
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 1.5 Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE

Date/ Time Received: 09/18/2017 03:48:00 PM

Work Order #: 563017

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Shawnee Smith Date: 09/18/2017

Shawnee Smith

Checklist reviewed by: Kelsey Brooks Date: 09/18/2017

Kelsey Brooks