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

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Corkran Energy OGRID #: 243452
Address: 300 Beardsley Lane Austin, TX 78746
Facility or well name: Frontier 9 Fed Com #1
API Number: 30-015-35920 OCD Permit Number:
U/L or Qtr/Qtr J Section 9 Township 23S Range 22E County: Eddy
Center of Proposed Design: Latitude 32° 18.991' N Longitude 104° 42.342' W NAD: ☒ 1927 ☐ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness 12 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other Volume: bbl Dimensions: L 150' x W 150' x D 9'

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: ☐ Welded ☐ Factory ☐ Other

4.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Rule 50 permitted – Final Closure date 12/18/09

6.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.3.103 NMAC

9.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. **Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H_2S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☒ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System ☐ Alternative

Proposed Closure Method: ☒ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- ☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
  - ☐ In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC
Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☐ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☐ No

18.
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

20.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: _____ **Approval Date:** _____

Title: _____ **OCD Permit Number:** _____

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date:** 12-18-2009

22.
Closure Method:

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☒ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☒ Plot Plan (for on-site closures and temporary pits)
☒ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☒ Disposal Facility Name and Permit Number
☒ Soil Backfilling and Cover Installation
☒ Re-vegetation Application Rates and Seeding Technique
☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐1927 ☐ 1983

25.
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Dennis Corkran Title: President

Signature: _____ Date: 12-18-09

e-mail address: D.corkran@corkranenergy.com Telephone: 512-329-6140

Accepted for record
NMOCD

JAN 19 2010

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

30-015-35920

Release Notification and Corrective Action

nMLB1001949806

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company – Corkran Energy 243452	Contact – Dennis Corkran
Address – 300 Beardsley Lane C204 Austin, TX 78746	Telephone No. – 512-329-6140
Facility Name – Frontier 9 Fed Com #1	Facility Type – Drilling Pit

Surface Owner – BLM	Mineral Owner –	Lease No. 30-015-35920

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	9	23S	22E					Eddy

Latitude 32° 18.991' N **Longitude** 104° 42.342' W

NATURE OF RELEASE

Type of Release – Drilling Pit Contents	Volume of Release – N/A	Volume Recovered – N/A
Source of Release – Drilling Pit	Date and Hour of Occurrence NA	Date and Hour of Discovery 11-24-09
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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.* Drilling pit contents leaked into underlying soil.

Describe Area Affected and Cleanup Action Taken.* Pit bottoms were tested and delineated to NMOCD standards. Attached is the plat map, field analytical and lab confirmations of the delineation. As per the approved remediation plan the drilling pit was capped with a 20 mil poly liner at 9' bgs (Pit bottom). A 4 oz. Geotextile liner was installed above and below the poly liner. The site was backfilled with clean native soil and seeded per the original pit closure plan.

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: Dennis Corkran	OIL CONSERVATION DIVISION
Printed Name: Dennis Corkran	Approved by Signed By Mike Bratcher
Title: ~~Owner~~ PRESIDENT	Approval Date: JAN 19 2010 Expiration Date: N/A
e-mail Address: D.corkran@corkranenergy.com	Conditions of Approval: NA Attached ☐
Date: 12-17-09 Phone: 512-329-6140	

* Attach Additional Sheets If Necessary

RECEIVED
JAN 14 2010
NMOCD ARTESIA

Closure Report

Prepared for
Corkran Energy

Frontier 9 Fed Com #1 Drilling Pit

Eddy County, NM

Prepared by
Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768
Phone (432) 366-0043 Fax (432) 366-0884

Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768
Phone (432) 366-0043 Fax (432) 366-0884

December 18, 2009

New Mexico Oil Conservation Division
Mr. Mike Bratcher
1301 West Grand Ave.
Artesia, New Mexico 88210

Re: Drilling Pit Closure of Corkran Energy – Frontier 9 Fed Com #1

Mr. Mike Bratcher,

Elke Environmental was contracted by Corkran Energy to complete the closure of the Frontier 9 Fed Com #1 drilling pit. As per the C-144 filed and approved all the drilling pit contents were excavated and hauled to Lea Land Disposal (Permit # WM-1-035). Six bottom points were analyzed and NMOCD standards were not meet. A vertical delineation was started with a trackhoe and completed with an air rotary rig due to very hard rock. The deepest point at 52' below ground surface met NMOCD standards. Confirmation lab samples were taken at the deepest point of each delineation point. A remediation plan was submitted and approved for the impacted underlying soil. As per the approved remediation plan the drilling pit was capped with a 20 mil poly liner. A 4 oz. Geotextile Liner was installed above and below the poly liner. The drilling pit was then backfilled with clean native soil and seeded per the original Pit Closure Plan. If you have any questions about the enclosed report please contact me at the office.

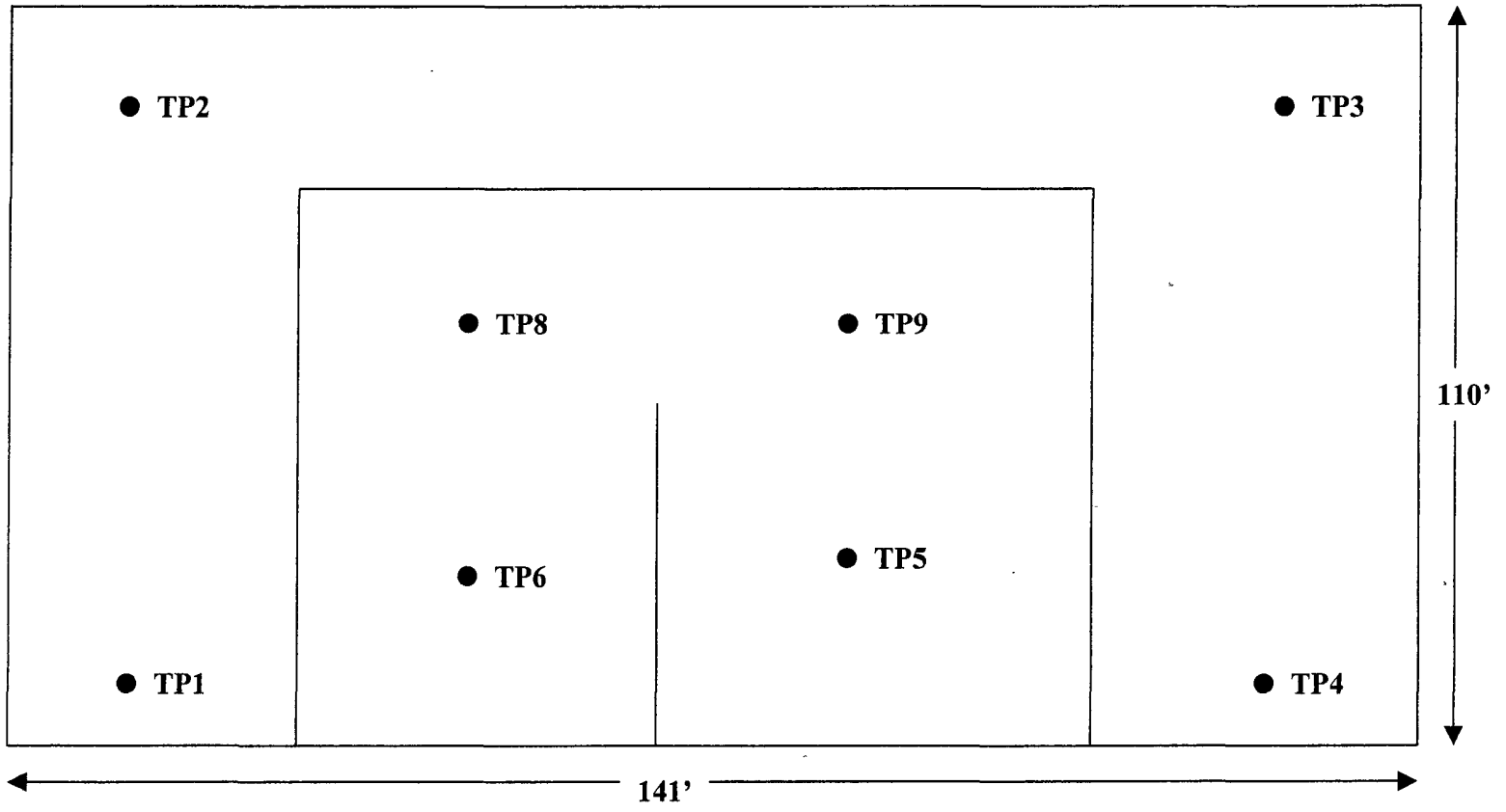
Sincerely,

Logan Anderson

Corkran Energy
Frontier 9 Federal Com #1
UL 'J' Sec. 9 T23S R22E Eddy County, NM
API # 30-015-35920

N

Plat Map



Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Corkran Energy **Analyst** Bobby Steadham

Site Frontier 9 Fed Com #1

Sample ID	Date	Depth	418.1 TPH / PPM	Cl / PPM	PID / PPM	GPS
TP1	11-24-09	9'	41	3,187	14.0	32° 18.991' N 104° 42.342' W
TP1	11-24-09	10'		3,381		32° 18.991' N 104° 42.342' W
TP1	11-24-09	11'		1,575		32° 18.991' N 104° 42.342' W
TP1	11-30-09	13'		516		32° 18.991' N 104° 42.342' W
TP1	11-30-09	15'		879		32° 18.991' N 104° 42.342' W
TP1	11-30-09	17'		509		32° 18.991' N 104° 42.342' W
TP1	11-30-09	21'		882		32° 18.991' N 104° 42.342' W
TP1	11-30-09	25'		439		32° 18.991' N 104° 42.342' W
TP1	11-30-09	30'		597		32° 18.991' N 104° 42.342' W
TP1	11-30-09	35'	13	229	10.3	32° 18.991' N 104° 42.342' W
TP2	11-24-09	9'	37	1,849	11.3	32° 18.976' N 104° 42.344' W
TP2	11-24-09	10'		1,323		32° 18.976' N 104° 42.344' W
TP2	11-30-09	12'		911		32° 18.976' N 104° 42.344' W
TP2	11-30-09	14'		445		32° 18.976' N 104° 42.344' W
TP2	11-30-09	16'		382		32° 18.976' N 104° 42.344' W
TP2	11-30-09	18'		584		32° 18.976' N 104° 42.344' W
TP2	11-30-09	22'	17	241	13.0	32° 18.976' N 104° 42.344' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Corkran Energy **Analyst** Bobby Steadham

Site Frontier 9 Fed Com #1

Sample ID	Date	Depth	418.1 TPH / PPM	Cl / PPM	PID / PPM	GPS
TP3	11-24-09	9'	22	4,089	15.7	32° 18.977' N 104° 42.365' W
TP3	11-24-09	10'	24	204	10.8	32° 18.977' N 104° 42.365' W
TP4	11-24-09	10'	29	1,402	16.4	32° 18.992' N 104° 42.366' W
TP4	11-24-09	11'		1,039		32° 18.992' N 104° 42.366' W
TP4	11-24-09	12'		2,210		32° 18.992' N 104° 42.366' W
TP4	12-1-09	17'		389		32° 18.992' N 104° 42.366' W
TP4	12-1-09	22'	9	236	11.1	32° 18.992' N 104° 42.366' W
TP5	11-24-09	10'	7	6,087	11.7	32° 18.991' N 104° 42.357' W
TP5	11-24-09	11'		1,828		32° 18.991' N 104° 42.357' W
TP5	11-24-09	12'		2,011		32° 18.991' N 104° 42.357' W
TP5	12-1-09	17'		1,195		32° 18.991' N 104° 42.357' W
TP5	12-1-09	22'		6,897		32° 18.991' N 104° 42.357' W
TP5	12-1-09	27'		8,583		32° 18.991' N 104° 42.357' W
TP5	12-1-09	32'		4,212		32° 18.991' N 104° 42.357' W
TP5	12-1-09	37'		1,601		32° 18.991' N 104° 42.357' W
TP5	12-1-09	42'		757		32° 18.991' N 104° 42.357' W
TP5	12-1-09	47'	11	270	10.3	32° 18.991' N 104° 42.357' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

Client Corkran Energy **Analyst** Bobby Steadham

Site Frontier 9 Fed Com #1

Sample ID	Date	Depth	418.1 TPH / PPM	Cl / PPM	PID / PPM	GPS
TP6	11-24-09	10'	16	4,097	21.0	32° 18.991' N 104° 42.351' W
TP6	11-24-09	12'		7,007		32° 18.991' N 104° 42.351' W
TP6	11-30-09	17'		890		32° 18.991' N 104° 42.351' W
TP6	11-30-09	22'		3,027		32° 18.991' N 104° 42.351' W
TP6	11-30-09	27'		3,635		32° 18.991' N 104° 42.351' W
TP6	11-30-09	32'		908		32° 18.991' N 104° 42.351' W
TP6	12-1-09	37'		578		32° 18.991' N 104° 42.351' W
TP6	12-1-09	42'		747		32° 18.991' N 104° 42.351' W
TP6	12-1-09	47'		445		32° 18.991' N 104° 42.351' W
TP6	12-1-09	52'	14	279	12.1	32° 18.991' N 104° 42.351' W
TP8	12-4-09	10'		3,750		32° 18.985' N 104° 42.350' W
TP8	12-4-09	15'		692		32° 18.985' N 104° 42.350' W
TP8	12-4-09	20'		451		32° 18.985' N 104° 42.350' W
TP8	12-4-09	25'		371		32° 18.985' N 104° 42.350' W
TP8	12-4-09	30'		175		32° 18.985' N 104° 42.350' W
TP8	12-4-09	35'		239		32° 18.985' N 104° 42.350' W
TP8	12-4-09	40'		212		32° 18.985' N 104° 42.350' W

Analyst Notes

Elke Environmental, Inc.
P.O. Box 14167 Odessa, TX 79768

Field Analytical Report Form

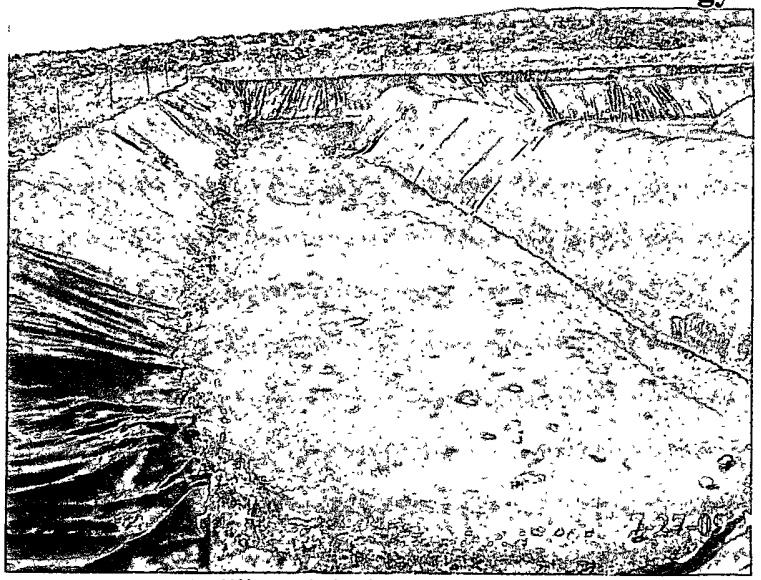
Client Corkran Energy **Analyst** Bobby Steadham

Site Frontier 9 Fed Com #1

Sample ID	Date	Depth	418.1 TPH / PPM	Cl / PPM	PID / PPM	GPS
TP8	12-4-09	45'		171		32° 18.985' N 104° 42.350' W
TP8	12-4-09	50'		183		32° 18.985' N 104° 42.350' W
TP9	12-4-09	10'		1,345		32° 18.985' N 104° 42.358' W
TP9	12-4-09	15'		1,084		32° 18.985' N 104° 42.358' W
TP9	12-4-09	20'		283		32° 18.985' N 104° 42.358' W
TP9	12-4-09	25'		352		32° 18.985' N 104° 42.358' W
TP9	12-4-09	30'		178		32° 18.985' N 104° 42.358' W
TP9	12-4-09	35'		255		32° 18.985' N 104° 42.358' W
TP9	12-4-09	40'		207		32° 18.985' N 104° 42.358' W
TP9	12-4-09	45'		239		32° 18.985' N 104° 42.358' W
TP9	12-4-09	50'		179		32° 18.985' N 104° 42.358' W
TP7	11-24-09	3"		712		32° 18.031' N 104° 42.373' W
TP7	11-24-09	6"	13	207	8.7	32° 18.031' N 104° 42.373' W

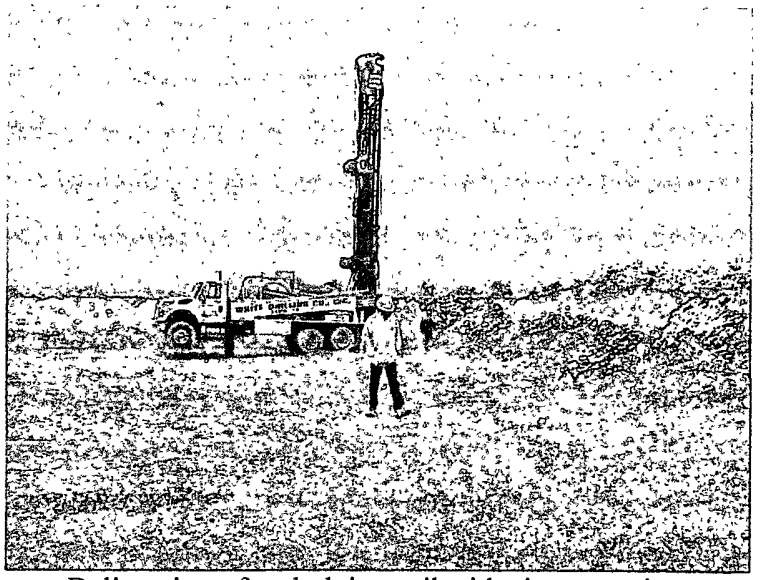
Analyst Notes TP7 is a sample point from the abandoned battery at the site.

Corkran Energy – Frontier 9 Fed Com #1

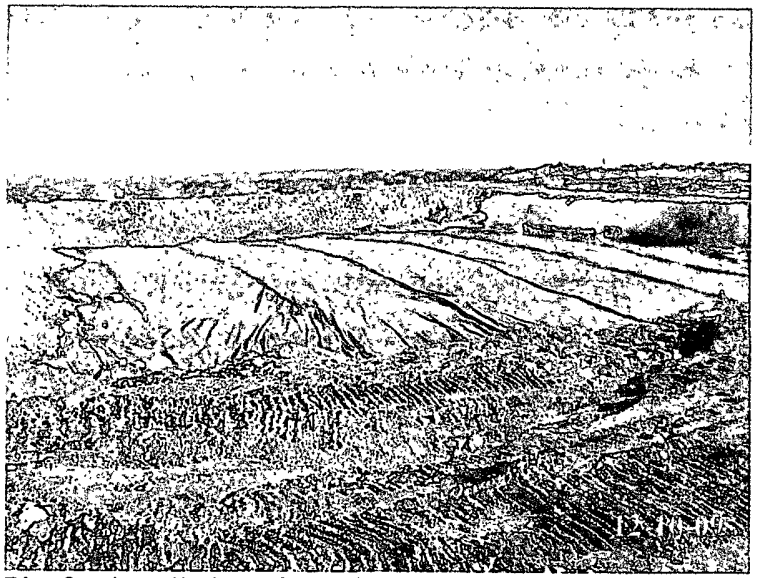


Drilling pit before closure.

Drilling pit before closure.



Delineation of underlying soil with air rotary rig.



Pit after installation of 20 mil poly and 2 - Geotextile Liners.

Analytical Report 354131

for

Elke Environmental, Inc.

Project Manager: Logan Anderson

Corkran Energy

Frontier 9 Fed Com # 1

08-DEC-09

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)
Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),
South Carolina(96031001), Louisiana(04154), Georgia(917)

08-DEC-09

Project Manager: **Logan Anderson**
Elke Environmental, Inc.
P.O. Box 14167
Odessa, TX 79768

Reference: XENCO Report No: **354131**
Corkran Energy
Project Address:

Logan Anderson:

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 354131. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 354131 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 354131

Elke Environmental, Inc., Odessa, TX

Corkran Energy

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TP 7 @ 6"	S	Nov-24-09 14:00	6 In	354131-001
TP 3 @ 2'	S	Nov-24-09 12:00	2 ft	354131-002

CASE NARRATIVE

Client Name: Elke Environmental, Inc.
Project Name: Corkran Energy

Project ID: *Frontier 9 Fed Com # 1* *Report Date:* *08-DEC-09*
Work Order Number: *354131* *Date Received:* *12/03/2009*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-784504 Percent Moisture
None

Batch: LBA-784518 TPH By SW8015 Mod
None

Batch: LBA-784526 Inorganic Anions by EPA 300
None

Batch: LBA-784762 BTEX by EPA 8021B
SW8021BM

Batch 784762, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 354131-001, -002.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-784767 TPH by EPA 418.1
None

Certificate of Analysis Summary 354131

Elke Environmental, Inc., Odessa, TX

Project Name: Corkran Energy

Project Id: Frontier 9 Fed Com # 1
Contact: Logan Anderson
Project Location:

Date Received in Lab: Thu Dec-03-09 10:21 am
Report Date: 08-DEC-09
Project Manager: Brent Barron, II

Analysis Requested								
	Lab Id:	354131-001		354131-002				
	Field Id:	TP 7 @ 6"		TP 3 @ 2'				
	Depth:	6 In		2 ft				
	Matrix:	SOIL		SOIL				
	Sampled:	Nov-24-09 14:00		Nov-24-09 12:00				
Anions by E300	*Extracted:*							
	Analyzed:	Dec-03-09 17:09		Dec-03-09 17:09				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Chloride		22.8	5.12	16.8	4.57			
BTEX by EPA 8021B	*Extracted:*	Dec-07-09 14:35		Dec-07-09 14:35				
	Analyzed:	Dec-07-09 16:56		Dec-07-09 17:21				
	Units/RL:	mg/kg	RL	mg/kg	RL			
Benzene		ND	0.0011	ND	0.0010			
Toluene		ND	0.0023	ND	0.0020			
Ethylbenzene		ND	0.0011	ND	0.0010			
m,p-Xylenes		ND	0.0023	ND	0.0020			
o-Xylene		ND	0.0011	ND	0.0010			
Total Xylenes		ND	0.0011	ND	0.0010			
Total BTEX		ND	0.0011	ND	0.0010			
Percent Moisture	*Extracted:*							
	Analyzed:	Dec-03-09 17:00		Dec-03-09 17:00				
	Units/RL:	%	RL	%	RL			
Percent Moisture		12.0	1.00	1.43	1.00			
TPH By SW8015 Mod	*Extracted:*	Dec-03-09 12:30		Dec-03-09 12:30				
	Analyzed:	Dec-07-09 04:06		Dec-07-09 04:32				
	Units/RL:	mg/kg	RL	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		ND	17.0	ND	15.2			
C12-C28 Diesel Range Hydrocarbons		ND	17.0	ND	15.2			
C28-C35 Oil Range Hydrocarbons		ND	17.0	ND	15.2			
Total TPH		ND	17.0	ND	15.2			

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 354131

Elke Environmental, Inc., Odessa, TX

Project Name: Corkran Energy

Project Id: Frontier 9 Fed Com # 1
Contact: Logan Anderson
Project Location:

Date Received in Lab: Thu Dec-03-09 10:21 am
Report Date: 08-DEC-09
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	354131-001		354131-002			
	Field Id:	TP 7 @ 6"		TP 3 @ 2'			
	Depth:	6 In		2 ft			
	Matrix:	SOIL		SOIL			
	Sampled:	Nov-24-09 14:00		Nov-24-09 12:00			
TPH by EPA 418.1	***Extracted:***						
	Analyzed:	Dec-08-09 10:45		Dec-08-09 10:45			
	Units/RL:	mg/kg	RL	mg/kg	RL		
TPH, Total Petroleum Hydrocarbons		131	11.4	73.5	10.1		

Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Corkran Energy

Work Orders : 354131,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784762 **Sample:** 544968-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 15:24

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 784762 **Sample:** 544968-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 16:09

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 784762 **Sample:** 354131-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 16:56

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 784762 **Sample:** 354131-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 17:21

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 784762 **Sample:** 353806-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 19:59

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0326	0.0300	109	80-120	
4-Bromofluorobenzene	0.0327	0.0300	109	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: Corkran Energy

Work Orders : 354131,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784762 **Sample:** 353806-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 20:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0339	0.0300	113	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

Lab Batch #: 784518 **Sample:** 544825-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 01:28

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	99.9	97	70-135	
o-Terphenyl	42.5	50.0	85	70-135	

Lab Batch #: 784518 **Sample:** 544825-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 01:55

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	100	98	70-135	
o-Terphenyl	43.1	50.0	86	70-135	

Lab Batch #: 784518 **Sample:** 544825-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 02:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	99.9	90	70-135	
o-Terphenyl	48.0	50.0	96	70-135	

Lab Batch #: 784518 **Sample:** 354131-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 04:06

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.5	99.6	83	70-135	
o-Terphenyl	45.4	49.8	91	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: Corkran Energy

Work Orders : 354131,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784518 **Sample:** 354131-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 04:32

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.0	99.6	84	70-135	
o-Terphenyl	44.3	49.8	89	70-135	

Lab Batch #: 784518 **Sample:** 354131-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 07:09

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.8	100	70-135	
o-Terphenyl	43.9	49.9	88	70-135	

Lab Batch #: 784518 **Sample:** 354131-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 07:35

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	99.8	95	70-135	
o-Terphenyl	41 4	49.9	83	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.

Blank Spike Recovery

Project Name: Corkran Energy

Work Order #: 354131 **Project ID:** Frontier 9 Fed Com # 1

Lab Batch #: 784762 **Sample:** 544968-1-BKS **Matrix:** Solid

Date Analyzed: 12/07/2009 **Date Prepared:** 12/07/2009 **Analyst:** ASA

Reporting Units: mg/kg **Batch #:** 1

BTEX by EPA 8021B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Benzene	ND	0.1000	0.0943	94	70-130	
Toluene	ND	0.1000	0.0979	98	70-130	
Ethylbenzene	0.0010	0.1000	0.0952	95	71-129	
m,p-Xylenes	ND	0.2000	0.1956	98	70-135	
o-Xylene	ND	0.1000	0.1027	103	71-133	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Corkran Energy

Work Order #: 354131 **Project ID:** Frontier 9 Fed Com # 1

Analyst: LATCOR **Date Prepared:** 12/08/2009 **Date Analyzed:** 12/08/2009

Lab Batch ID: 784767 **Sample:** 784767-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH by EPA 418.1	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
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**
TPH, Total Petroleum Hydrocarbons	ND	2500	2710	108	2500	2780	111	3	65-135	35	

Analyst: BEV **Date Prepared:** 12/03/2009 **Date Analyzed:** 12/07/2009

Lab Batch ID: 784518 **Sample:** 544825-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
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 Gasoline Range Hydrocarbons	ND	999	879	88	1000	863	86	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	999	826	83	1000	834	83	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 Recoveries

Project Name: Corkran Energy

Work Order #: 354131
Lab Batch #: 784526
Project ID: Frontier 9 Fed Com # 1
Date Analyzed: 12/03/2009
Date Prepared: 12/03/2009
Analyst: LATCOR
QC- Sample ID: 354145-001 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	ND	109	108	99	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Corkran Energy

Work Order # : 354131 **Project ID:** Frontier 9 Fed Com # 1

Lab Batch ID: 784762 **QC- Sample ID:** 353806-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/07/2009 **Date Prepared:** 12/07/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	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	ND	0.1187	0.0664	56	0.1184	0.0773	65	15	70-130	35	X
Toluene	0.0172	0.1187	0.0589	35	0.1184	0.0649	40	10	70-130	35	X
Ethylbenzene	ND	0.1187	0.0545	46	0.1184	0.0600	51	10	71-129	35	X
m,p-Xylenes	ND	0.2374	0.1040	44	0.2369	0.1122	47	8	70-135	35	X
o-Xylene	ND	0.1187	0.0604	51	0.1184	0.0660	56	9	71-133	35	X

Lab Batch ID: 784767 **QC- Sample ID:** 354129-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/08/2009 **Date Prepared:** 12/08/2009 **Analyst:** LATCOR

Reporting Units: mg/kg

TPH by EPA 418.1 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	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
TPH, Total Petroleum Hydrocarbons	69.8	2520	2720	105	2520	2880	112	6	65-135	35	

Lab Batch ID: 784518 **QC- Sample ID:** 354131-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/07/2009 **Date Prepared:** 12/03/2009 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	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 Gasoline Range Hydrocarbons	ND	1130	1010	89	1130	968	86	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1130	853	75	1130	894	79	5	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 ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Corkran Energy

Work Order #: 354131

Lab Batch #: 784526 **Project ID:** Frontier 9 Fed Com # 1

Date Analyzed: 12/03/2009 **Date Prepared:** 12/03/2009 **Analyst:** LATCOR

QC- Sample ID: 354145-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	ND	ND	NC	20	

Lab Batch #: 784504

Date Analyzed: 12/03/2009 **Date Prepared:** 12/03/2009 **Analyst:** LATCOR

QC- Sample ID: 353975-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.38	3.98	16	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043 Fax No: 432-366-0884
Sampler Signature:
e-mail: la_elkeenv@yahoo.com

Project Name: Cochran Energy
Project #: Frontier 9 Fed Com #1
Project Loc:
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 354131

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge; GW=Groundwater S=Soil/Solid; NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: (418.1) (8015M)	TOTAL: TPH: TX 1005	TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.			RUSH TAT (Pre-Scheduled) 24, 48, 72 hrs	Standard TAT
01	TP7 @ 6"		6"	11/24/09	14:00		1	X								S	X			X					X						
02	TP3 @ 2'		2'	11/24/09	12:00		1	X								S	X			X					X						X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	12/3/09	10:21AM			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Andrea Lam	12.3.09	10:21

Laboratory Comments:

VOCs Free of Headspace? Y N
Custody seals on container(s) Y N
Sample Hand Delivered by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Yorglass
Temperature Upon Receipt: -9.4 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Elke Env.

Date/ Time: 12.3.09 10.21

Lab ID #: 35414 N 31

Initials: AZ

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-9.4 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	~~Not Present~~	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 354129

for

Elke Environmental, Inc.

Project Manager: Logan Anderson

Corkran Energy

Frontier 9 Fed Com # 1

10-DEC-09

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)
Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),
South Carolina(96031001), Louisiana(04154), Georgia(917)

10-DEC-09

Project Manager: **Logan Anderson**
Elke Environmental, Inc.
P.O. Box 14167
Odessa, TX 79768

Reference: XENCO Report No: **354129**
Corkran Energy
Project Address:

Logan Anderson:

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 354129. 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. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. 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. 354129 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,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 354129

Elke Environmental, Inc., Odessa, TX

Corkran Energy

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
TP 1 @ 35'	S	Nov-30-09 16:00	35 ft	354129-001
TP 2 @ 22'	S	Nov-30-09 17:00	22 ft	354129-002
TP 4 @ 22'	S	Dec-01-09 09:40	22 ft	354129-003
TP 5 @ 47'	S	Dec-01-09 12:30	47 ft	354129-004
TP 6 @ 52'	S	Dec-01-09 15:10	52 ft	354129-005

CASE NARRATIVE

Client Name: Elke Environmental, Inc.
Project Name: Corkran Energy

Project ID:	*Frontier 9 Fed Com # 1*	*Report Date:*	*10-DEC-09*
Work Order Number:	*354129*	*Date Received:*	*12/03/2009*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-784504 Percent Moisture
None

Batch: LBA-784518 TPH By SW8015 Mod
None

Batch: LBA-784526 Inorganic Anions by EPA 300
None

Batch: LBA-784767 TPH by EPA 418.1
None

Batch: LBA-784779 BTEX by EPA 8021B
SW8021BM
Batch 784779, Benzene, Toluene, Ethylbenzene, m,p-Xylenes , o-Xylene, a,a,a-Trifluorotoluene RPD is outside the QC limit. This is most likely due to sample non-homogeneity.
Samples affected are: 354129-005, -004.

Batch: LBA-784973 BTEX by EPA 8021B
SW8021BM

Batch 784973, Benzene, Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike.
Samples affected are: 354129-002, -001, -003.
The Laboratory Control Sample for m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 784973, 1,4-Difluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by reanalysisSamples affected are: 354129-001 S,354129-001 SD.

Certificate of Analysis Summary 354129

Elke Environmental, Inc., Odessa, TX

Project Name: Corkran Energy

Project Id: Frontier 9 Fed Com # 1
Contact: Logan Anderson
Project Location:

Date Received in Lab: Thu Dec-03-09 10:20 am
Report Date: 10-DEC-09
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	354129-001		354129-002		354129-003		354129-004		354129-005	
	Field Id:	TP 1 @ 35'		TP 2 @ 22'		TP 4 @ 22'		TP 5 @ 47'		TP 6 @ 52'	
	Depth:	35 ft		22 ft		22 ft		47 ft		52 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-30-09 16:00		Nov-30-09 17:00		Dec-01-09 09:40		Dec-01-09 12:30		Dec-01-09 15:10	
Anions by E300	*Extracted:*										
	Analyzed:	Dec-03-09 17:09		Dec-03-09 17:09		Dec-03-09 17:09		Dec-03-09 17:09		Dec-03-09 17:09	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		101	4.54	77.0	4.52	129	4.59	66.1	4.52	251	4.76
BTEX by EPA 8021B	*Extracted:*	Dec-08-09 14:00		Dec-08-09 14:00		Dec-08-09 14:00		Dec-07-09 15:00		Dec-07-09 15:00	
	Analyzed:	Dec-08-09 20:33		Dec-08-09 20:56		Dec-08-09 21:20		Dec-08-09 06:22		Dec-08-09 06:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Toluene		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0021
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0 0014	0.0010
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0021
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Total Xylenes		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0014	0.0010
Percent Moisture	*Extracted:*										
	Analyzed:	Dec-03-09 17:00		Dec-03-09 17:00		Dec-03-09 17:00		Dec-03-09 17:00		Dec-03-09 17:00	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		ND	1.00	ND	1.00	1.95	1.00	ND	1.00	5.40	1.00
TPH By SW8015 Mod	*Extracted:*	Dec-03-09 12:30		Dec-03-09 12:30		Dec-03-09 12:30		Dec-03-09 12:30		Dec-03-09 12:30	
	Analyzed:	Dec-07-09 04:59		Dec-07-09 05:25		Dec-07-09 05:51		Dec-07-09 06:17		Dec-07-09 06:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	15.1	ND	15.0	ND	15.3	ND	15.1	ND	15.9
C12-C28 Diesel Range Hydrocarbons		ND	15.1	15.9	15.0	ND	15.3	ND	15.1	ND	15.9
C28-C35 Oil Range Hydrocarbons		ND	15.1	ND	15.0	ND	15.3	ND	15.1	ND	15.9
Total TPH		ND	15.1	15.9	15.0	ND	15.3	ND	15.1	ND	15.9

Brent Barron, II
Odessa Laboratory Manager

Lab: Thu Dec-03-09 10:20 am
)ate: 10-DEC-09
ager: Brent Barron, II

4	354129-005	
"	TP 6 @ 52'	
	52 ft	
	SOIL	
2:30	Dec-01-09 15:10	
7:09	Dec-03-09 17:09	
RL	mg/kg RL	
4.52	251 4.76	
5:00	Dec-07-09 15:00	
5:22	Dec-08-09 06:45	
RL	mg/kg RL	
.0010	ND 0.0010	
.0020	ND 0.0021	
0010	0.0014 0.0010	
.0020	ND 0.0021	
.0010	ND 0.0010	
.0010	ND 0.0010	
.0010	0.0014 0.0010	
7:00	Dec-03-09 17:00	
RL	% RL	
1.00	5.40 1.00	
2:30	Dec-03-09 12:30	
5:17	Dec-07-09 06:43	
RL	mg/kg RL	
15.1	ND 15.9	
15.1	ND 15.9	
15.1	ND 15.9	
15.1	ND 15.9	

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 354129

Elke Environmental, Inc., Odessa, TX

Project Name: Corkran Energy

Project Id: Frontier 9 Fed Com # 1
Contact: Logan Anderson
Project Location:

Date Received in Lab: Thu Dec-03-09 10:20 am
Report Date: 10-DEC-09
Project Manager: Brent Barron, II

Analysis Requested											
	Lab Id:	354129-001		354129-002		354129-003		354129-004		354129-005	
	Field Id:	TP 1 @ 35'		TP 2 @ 22'		TP 4 @ 22'		TP 5 @ 47'		TP 6 @ 52'	
	Depth:	35 ft		22 ft		22 ft		47 ft		52 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-30-09 16:00		Nov-30-09 17:00		Dec-01-09 09:40		Dec-01-09 12:30		Dec-01-09 15:10	
TPH by EPA 418.1	***Extracted:***										
	Analyzed:	Dec-08-09 10:45		Dec-08-09 10:45		Dec-08-09 10:45		Dec-08-09 10:45		Dec-08-09 10:45	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH, Total Petroleum Hydrocarbons		69.8	10.1	79.9	10.1	123	10.2	148	10.0	113	10.6

Brent Barron, II
Odessa Laboratory 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 effect the recovery of the spike concentration. This condition could also effect 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 MQL and above the SQL.

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.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Corkran Energy

Work Orders : 354129,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784779 **Sample:** 544970-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 21:06

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 784779 **Sample:** 544970-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 21:29

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0345	0.0300	115	80-120	
4-Bromofluorobenzene	0.0331	0.0300	110	80-120	

Lab Batch #: 784779 **Sample:** 544970-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 22:13

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 784779 **Sample:** 354129-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/08/09 06:22

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 784779 **Sample:** 354129-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/08/09 06:45

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0318	0.0300	106	80-120	
4-Bromofluorobenzene	0.0334	0.0300	111	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: Corkran Energy

Work Orders : 354129,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784779 **Sample:** 353862-001 D / MD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/08/09 07:07

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	0.0297	0.0300	99	80-120	

Lab Batch #: 784973 **Sample:** 545085-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/08/09 19:01

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0344	0.0300	115	80-120	
4-Bromofluorobenzene	0.0333	0.0300	111	80-120	

Lab Batch #: 784973 **Sample:** 545085-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/08/09 19:24

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0343	0.0300	114	80-120	
4-Bromofluorobenzene	0.0333	0.0300	111	80-120	

Lab Batch #: 784973 **Sample:** 545085-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/08/09 20:10

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	0.0320	0.0300	107	80-120	

Lab Batch #: 784973 **Sample:** 354129-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/08/09 20:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	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: Corkran Energy

Work Orders : 354129,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784973 **Sample:** 354129-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/08/09 20:56

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0333	0.0300	111	80-120	

Lab Batch #: 784973 **Sample:** 354129-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/08/09 21:20

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0320	0.0300	107	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

Lab Batch #: 784973 **Sample:** 354129-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/09/09 05:40

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0439	0.0300	146	80-120	*
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

Lab Batch #: 784973 **Sample:** 354129-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/09/09 06:02

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0363	0.0300	121	80-120	*
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 784518 **Sample:** 544825-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 01:28

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.3	99.9	97	70-135	
o-Terphenyl	42.5	50.0	85	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: Corkran Energy

Work Orders : 354129,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784518 **Sample:** 544825-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 01:55

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.6	100	98	70-135	
o-Terphenyl	43.1	50.0	86	70-135	

Lab Batch #: 784518 **Sample:** 544825-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 12/07/09 02:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	99.9	90	70-135	
o-Terphenyl	48.0	50.0	96	70-135	

Lab Batch #: 784518 **Sample:** 354129-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 04:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.1	99.8	80	70-135	
o-Terphenyl	41.5	49.9	83	70-135	

Lab Batch #: 784518 **Sample:** 354129-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 05:25

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	79.2	99.7	79	70-135	
o-Terphenyl	40.7	49.9	82	70-135	

Lab Batch #: 784518 **Sample:** 354129-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 05:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.3	100	86	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: Corkran Energy

Work Orders : 354129,

Project ID: Frontier 9 Fed Com # 1

Lab Batch #: 784518 **Sample:** 354129-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 06:17

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.2	100	80	70-135	
o-Terphenyl	41.8	50.0	84	70-135	

Lab Batch #: 784518 **Sample:** 354129-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 06:43

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.9	100	83	70-135	
o-Terphenyl	44.7	50.0	89	70-135	

Lab Batch #: 784518 **Sample:** 354131-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 07:09

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.8	100	70-135	
o-Terphenyl	43.9	49.9	88	70-135	

Lab Batch #: 784518 **Sample:** 354131-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 12/07/09 07:35

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	95.0	99.8	95	70-135	
o-Terphenyl	41.4	49.9	83	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: Corkran Energy

Work Order #: 354129 **Project ID:** Frontier 9 Fed Com # 1

Analyst: ASA **Date Prepared:** 12/07/2009 **Date Analyzed:** 12/07/2009

Lab Batch ID: 784779 **Sample:** 544970-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
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	ND	0.1000	0.0982	98	0.1	0.0971	97	1	70-130	35	
Toluene	ND	0.1000	0.1010	101	0.1	0.1010	101	0	70-130	35	
Ethylbenzene	ND	0.1000	0.0983	98	0.1	0.0974	97	1	71-129	35	
m,p-Xylenes	ND	0.2000	0.1998	100	0.2	0.1985	99	1	70-135	35	
o-Xylene	0.0010	0 1000	0.1044	104	0.1	0.1042	104	0	71-133	35	

Analyst: ASA **Date Prepared:** 12/08/2009 **Date Analyzed:** 12/08/2009

Lab Batch ID: 784973 **Sample:** 545085-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
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	0.0011	0.1000	0.0989	99	0.1	0.0996	100	1	70-130	35	
Toluene	ND	0.1000	0.1039	104	0.1	0.1081	108	4	70-130	35	
Ethylbenzene	0.0013	0.1000	0.1000	100	0.1	0.1010	101	1	71-129	35	
m,p-Xylenes	0.0024	0.2000	0.2043	102	0.2	0.2070	104	1	70-135	35	
o-Xylene	0.0011	0.1000	0.1065	107	0.1	0.1079	108	1	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: Corkran Energy

Work Order #: 354129 **Project ID:** Frontier 9 Fed Com # 1

Analyst: LATCOR **Date Prepared:** 12/08/2009 **Date Analyzed:** 12/08/2009

Lab Batch ID: 784767 **Sample:** 784767-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH by EPA 418.1	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
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**
TPH, Total Petroleum Hydrocarbons	ND	2500	2710	108	2500	2780	111	3	65-135	35	

Analyst: BEV **Date Prepared:** 12/03/2009 **Date Analyzed:** 12/07/2009

Lab Batch ID: 784518 **Sample:** 544825-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

TPH By SW8015 Mod	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
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 Gasoline Range Hydrocarbons	ND	999	879	88	1000	863	86	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	999	826	83	1000	834	83	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 Recoveries

Project Name: Corkran Energy

Work Order #: 354129

Lab Batch #: 784526

Project ID: Frontier 9 Fed Com # 1

Date Analyzed: 12/03/2009

Date Prepared: 12/03/2009

Analyst: LATCOR

QC- Sample ID: 354145-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	ND	109	108	99	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Corkran Energy

Work Order # : 354129 **Project ID:** Frontier 9 Fed Com # 1

Lab Batch ID: 784973 **QC- Sample ID:** 354129-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/09/2009 **Date Prepared:** 12/08/2009 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	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	ND	0.1008	0.0634	63	0.1008	0.0879	87	32	70-130	35	X
Toluene	ND	0.1008	0.0763	76	0.1008	0.0981	97	25	70-130	35	
Ethylbenzene	ND	0.1008	0.0648	64	0.1008	0.0850	84	27	71-129	35	X
m,p-Xylenes	ND	0.2016	0.1310	65	0.2016	0.1730	86	28	70-135	35	X
o-Xylene	ND	0.1008	0.0704	70	0.1008	0.0933	93	28	71-133	35	X

Lab Batch ID: 784767 **QC- Sample ID:** 354129-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/08/2009 **Date Prepared:** 12/08/2009 **Analyst:** LATCOR

Reporting Units: mg/kg

TPH by EPA 418.1 Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	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
TPH, Total Petroleum Hydrocarbons	69.8	2520	2720	105	2520	2880	112	6	65-135	35	

Lab Batch ID: 784518 **QC- Sample ID:** 354131-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 12/07/2009 **Date Prepared:** 12/03/2009 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	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 Gasoline Range Hydrocarbons	ND	1130	1010	89	1130	968	86	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1130	853	75	1130	894	79	5	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 ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Corkran Energy

Work Order #: 354129

Lab Batch #: 784526 **Project ID:** Frontier 9 Fed Com # 1

Date Analyzed: 12/03/2009 **Date Prepared:** 12/03/2009 **Analyst:** LATCOR

QC- Sample ID: 354145-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	ND	ND	NC	20	

Lab Batch #: 784779

Date Analyzed: 12/08/2009 **Date Prepared:** 12/07/2009 **Analyst:** ASA

QC- Sample ID: 353862-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

BTEX by EPA 8021B	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Benzene	0.0756	0.0011	194	35	F
Toluene	1.424	0.0279	192	35	F
Ethylbenzene	0.4119	0.0086	192	35	F
m,p-Xylenes	0.9986	0.0218	191	35	F
o-Xylene	0.1818	0.0041	191	35	F
a,a,a-Trifluorotoluene	1.61	0.032	192	35	F

Lab Batch #: 784504

Date Analyzed: 12/03/2009 **Date Prepared:** 12/03/2009 **Analyst:** LATCOR

QC- Sample ID: 353975-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.38	3.98	16	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Environmental Lab of Texas

A Xenco Laboratories Company

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
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Project Manager: Logan Anderson
Company Name: Elke Environmental
Company Address: P O Box 14167
City/State/Zip: Odessa, TX 79768
Telephone No: 432-366-0043 Fax No: 432-366-0884
Sampler Signature: Erick Sanchez e-mail: la_elkeenv@yahoo.com

Project Name: Conoran Energy
Project #: Frontier 9 Fed com #1
Project Loc:
PO #:
Report Format: ☑ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 354179

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge	GW = Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015M 8015B	TOTAL: TPH: TX 1005	TPH: TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
01	TP1 @ 35'		35'	11-30-09	4:00 Pm		1	X								S			X				X					X				X
02	TP2 @ 22'		22'	11-30-09	5:00 Pm		1	X								S			X				X					X				X
03	TP4 @ 22'		22'	12-01-09	9:40 Am		1	X								S			X				X					X				X
04	TP5 @ 47'		47'	12-01-09	12:30 Pm		1	X								S			X				X					X				X
05	TP6 @ 52'		52'	12-01-09	3:10 Pm		1	X								S			X				X					X				X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Erick Sanchez	12-2-09	5:00 Pm		12/2/09	5:00 Pm
Relinquished by:	Date	Time	Received by:	Date	Time
	12/3/09	10:20 AM			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Andrea Fenn	12-3-09	10:20

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Sample Labels match COC? Y N
Custody seals on container(s) Y N
Sample Hand Delivered Y N
by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
402glass
Temperature Upon Receipt: -9.4 °C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Elke Env.

Date/ Time: 12.3.09 10:20

Lab ID # : 354129

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-9.4 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event