

REC'D 5/12/08

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

**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: BOPCO, L.P. OGRID #: 001801  
Address: P.O. Box 2760 Midland, TX 79702  
Facility or well name: Big Eddy Unit #202  
API Number: 30-015-36292 OCD Permit Number:  
U/L or Qtr/Qtr SWNW Section 24 Township 21S Range 28E County: EDDY  
Center of Proposed Design: Latitude N 32.467583 Longitude W 104.046503 NAD: ☐ 1927 ☒ 1983  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

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

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.

Final Closure Date 1/15/08

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.

☐ Yes ☐ No

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

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).

☐ Yes ☐ No

- Topographic map; Visual inspection (certification) of the proposed site

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*)

☐ Yes ☐ No  
☐ NA

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (*Applies to permanent pits*)

☐ Yes ☐ No  
☐ NA

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

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.

☐ Yes ☐ No

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

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.

☐ Yes ☐ No

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

Within 500 feet of a wetland.

☐ Yes ☐ No

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

Within the area overlying a subsurface mine.

☐ Yes ☐ No

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

Within an unstable area.

☐ Yes ☐ No

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

Within a 100-year floodplain.

☐ Yes ☐ No

- FEMA map

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<sub>2</sub>S, 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☐ AlternativeProposed 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 identify 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:** 1/15/08

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 identify 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): Annette Childers Title: Administrative Assitant

Signature: Annette Childers Date: 2-16-09

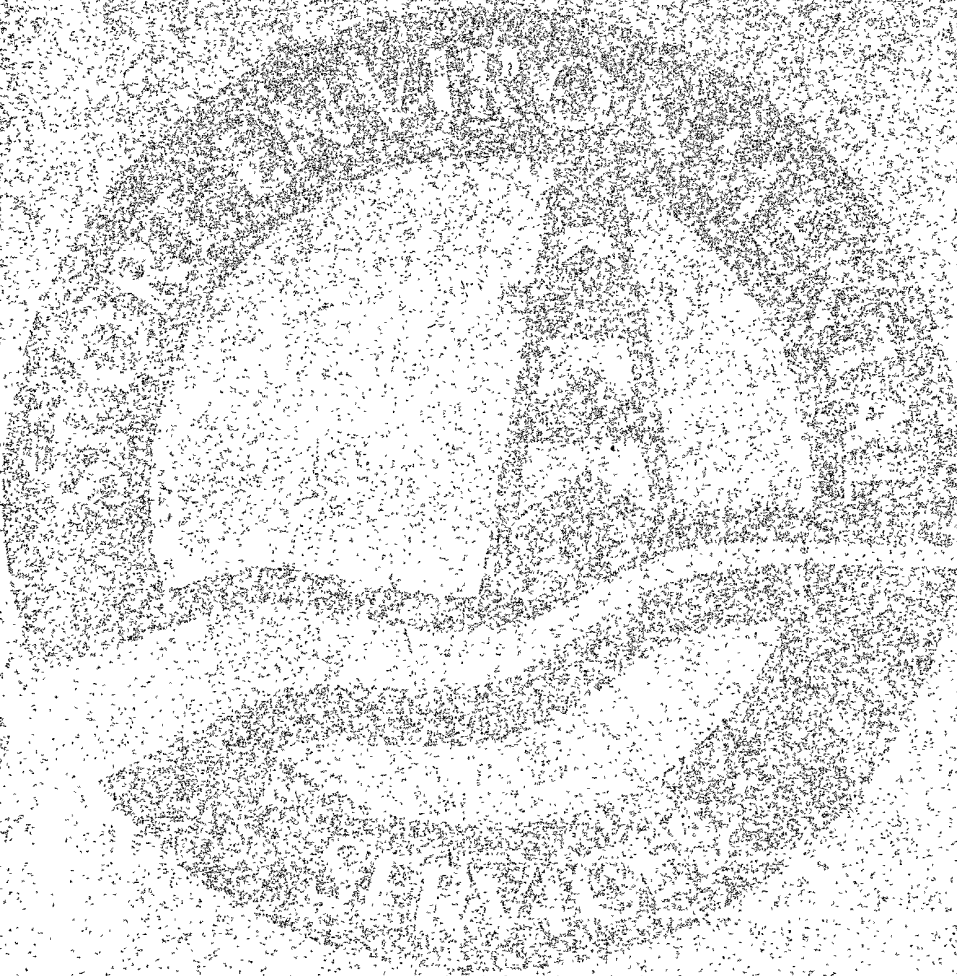
e-mail address: machilders@basspet.com Telephone: (432) 683-2277

Accepted for record  
NMOCD

MAY 29 2009

MAY 12 2009

# Waste Excavation and Removal Closure Plan



**BOPCO, L.P.**  
**Big Eddy Unit #202**  
**Section 24, T-21-S, R-28-E**  
**Eddy County, New Mexico**



**SPORT ENVIRONMENTAL SERVICES, PLLC**

502 N. Big Spring Street, Midland, Texas 79701

Business: 432.683.1100 Fax: 888.500.0622

April 16, 2009

Mr. Mike Bratcher  
State of New Mexico  
Oil Conservation Division  
1301 W. Grand  
Artesia, NM 88210

Re: **Waste Excavation and Removal Closure Report**  
**BOPCO, L.P., Big Eddy Unit #202**  
**Section 24, T-21-S, R-28-E**  
**Eddy County, New Mexico**

Dear Mr. Bratcher,

On behalf of BOPCO, L.P., Sport Environmental Services is providing the enclosed "Waste Excavation and Removal Closure" report and C-144 closure form for BOPCO, L.P.'s Big Eddy Unit #202 pit location. The company has undergone a name change since the time of pit closure, explaining the previous use of BEPCO, L.P. throughout previously filed and attached documents.

In an effort to fully delineate the pit location both horizontally and vertically, extensive soil investigation was conducted. Attached please find a site plan denoting sample locations along with the associated analytical results. Each soil sample was analyzed for **Total Petroleum Hydrocarbons** (C<sub>6</sub>-C<sub>12</sub> Gasoline Range Hydrocarbons or GRO; C<sub>12</sub>-C<sub>18</sub> Diesel Range Hydrocarbons or DRO; C<sub>28</sub>-C<sub>35</sub> Oil Range Hydrocarbons; and Total TPH) using Methods 418.1 and 8015M, **Chlorides (Cl)** EPA Method 300/300.1, and **Total BTEX** (Benzene; Toluene; Ethylbenzene; m,p-Xylene; o-Xylene, Total Xylenes, and total BTEX) using the Method 8021B/5030. This pit was sampled per the requirements set forth in NMAC 19.15.17.13 B(1)(b).

In summary, the TPH and Combined DRO and GRO fraction levels within all soil samples analyzed were below the regulatory limit. According to the New Mexico Oil Conservation Division and the New Mexico Office of the State Engineer iWATERS, groundwater is greater than 100 feet below ground surface (100' bgs) resulting in a soil chloride limitation of 1000 mg/kg. Analytical results demonstrate chloride levels are below the regulatory limitation.

There were a total of two rounds of delineation and confirmation sampling events, conducted on January 6, 2008 and January 8, 2008. Analytical results for each soil sample and the date the sample was determined clean are provided below and also condensed for your convenience within the attached **Sample Data Summary**. As required, email transmissions demonstrating 48-hour notification of sampling events and equipment mobilization are available upon request.

Sample location	Sample ID	Chloride Level	"Clean" Date
North Pit Wall	NEW1-2 Composite	36.4 mg/kg	January 6, 2008
East Pit Wall	EEW1-2 Composite	50.7 mg/kg	January 6, 2008
South Pit Wall	SEW1-2 Composite	390 mg/kg	January 6, 2008
West Pit Wall	WEW1-2 Composite	244 mg/kg	January 6, 2008
Pit Floor	NWF-001	140 mg/kg	January 6, 2008
	NCF-001	32.1 mg/kg	January 6, 2008
	NEF-001	109 mg/kg	January 6, 2008
	ECF-001	92.2 mg/kg	January 6, 2008
	SCF-001	72.7 mg/kg	January 6, 2008
	CEF-001	156 mg/kg	January 6, 2008
	CWF-001	240 mg/kg	January 6, 2008
	SWF-002	190 mg/kg	January 8, 2008
	WCF-001	314 mg/kg	January 6, 2008

Big D Environmental performed excavation and removal activities associated with the pit waste material. All excavated waste was disposed of off-site at a NMOCD permitted and approved facility, Controlled Recovery Inc. (Permit #R-9166). Waste manifesting documentation is maintained by Big D Environmental. The area was subsequently backfilled with unimpacted caliche and a two foot layer of topsoil.

During the reclamation phase of the pit closure, the site was reclaimed to a natural condition that blends with the surrounding topography; involving restoring the original landform or creating a landform that approximates and blends in with the surrounding landform. Disturbed areas will be re-vegetated to native species, controlling erosion, controlling invasive non-native plants and noxious weeds. A soil cover design consisting of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater has been provided. The soil cover was constructed to mimic the existing grade and prevent ponding of water and erosion of the cover material.

James Amos of the BLM has requested that reseedling take place in late June 2009, during the monsoonal season, for optimal vegetative growth. BLM Seed Mixture 2, for Sandy Sites, will be applied using the broadcast method. When broadcasting the seed, the pounds per acre will be doubled. As required by



NMAC 19.15.17.13(T)(2), successful reclamation is considered to be 70% re-growth of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. During the two growing seasons, that prove viability, there will be no artificial irrigation of the vegetation. Repeat seeding or planting will occur, until required vegetation coverage is successfully achieved. Evaluation of growth will not be made before completion of at least one full growing season after seeding. Photographs of existing vegetation were taken prior to constructing the drilling pit location, as a tool to confirm re-growth of 70% native vegetative coverage.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sand love grass ( <i>Eragrostis trichodes</i> )	1.0
Plains bristlegrass ( <i>Setaria macrostachya</i> )	2.0

\*Pounds of pure live seed:

Pounds of seed **X** percent purity **X** percent germination = pounds pure life seed

Enclosed you will find that the requirements set forth with the Waste Excavation and removal closure plan checklist denoted with in Box 15 of the Form C-144 for Pit Closures have been addressed herein. This closure report includes protocols and procedures

If you have any questions or comments with regard to this matter, please contact me at my office (432.683.1100) or on my cell (432.553.8555). I would be more than happy to review these results with you.

Sincerely,



Debi Sport Moore, M.E., R.E.P.A.  
President

*Enclosures: 2 Waste Excavation and Removal Closure Reports*

Cc: Mr. William R. Dannels  
C.K. "Buddy" Jenkins  
BOPCO, L.P.  
dba Bass Enterprises Production Co.  
P.O. Box 2760  
Midland, TX 79702

Big Eddy Unit #202  
Section 24, T-21-S, R-28-E  
Eddy County, New Mexico

**Form C-144 Pit Closure  
and  
Form 3160-5 BLM Sundry Notice**  
Big Eddy Unit #202



The Oilfield Waste Disposal Experts.<sup>SM</sup>



**Disposal Facility Name**

**Controlled Recovery, Inc**

**Permit Number**

**R-9166**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OM B No 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**

**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE- Other instructions on reverse side.**

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator **BOPCO, L.P.**

3a. Address  
**P.O. BOX 2760 Midland, TX 79702**

3b. Phone No. (include area code)  
**432-683-2277**

4. Location of Well (Footage, Sec., T, R, M, or Survey Description)  
**SWNW, SEC 24 T21S R28E, LAT N32.467583 DEG, LONG W104.046503**

5. Lease Serial No.

**NMLC 068284**

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

**Big Eddy Unit #202**

9. API Well No.

**30-015-36292**

10. Field and Pool, or Exploratory Area

**Indian Flats; (Morrow) Field**

11. County or Parish, State

**EDDY COUNTY, NM**

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <b>Pit Closure</b>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

**Pit was closed to meet regulatory requirements written under 19.15.17.13 NMAC temporary pit Waste Excavation and Removal on 01/15/09. See attached NMOCD Form C-144.**

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

**Annette Childers**

Title **Administrative Assistant**

Signature

**Annette Childers**

Date

**2-16-09**

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

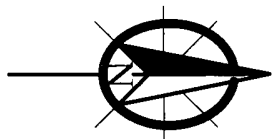
Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

BOPCO, L.P.  
Big Eddy Unit #202  
Section 24, T-21-S, R-28-E  
Eddy County, New Mexico

**SITE PLAN DENOTING  
PIT CLOSURE SAMPLING LOCATIONS**

Big Eddy Unit #202



Note All wall samples are composite samples. Initial round of sampling methods SW8015 Mod and EPA 418.1 for TPH, EPA 300/300.1 for chlorides were run during the analysis. Chlorides were the only ones that came back above the required limits. All analysis shown were mg/Kg Chlorides.

LOCATION

COMPOSITE SAMPLE  
SEW1-2 COMPOSITE  
390 mg/kg Cl

COMPOSITE SAMPLE  
WEW1-2 COMPOSITE  
244 mg/kg Cl

SWF-001  
1740 mg/kg

SWF-002  
190 mg/kg

WCF-001  
314 mg/kg

NWF-001  
140 mg/kg

CWF-001 240 mg/kg

CEF-001 156 mg/kg

CENTER-001  
62.9 mg/kg

NCF-001  
32.1 mg/kg

SEF-001  
72.7 mg/kg

ECF-001  
92.2 mg/kg

NEF-001  
109 mg/kg

COMPOSITE SAMPLE  
EEW1-2 COMPOSITE  
50.7 mg/kg Cl

COMPOSITE SAMPLE  
NEW1-2 COMPOSITE  
36.4 mg/kg Cl

Round One Samples - January 6, 2008  
Round Two Samples - January 8, 2008



BOPCO, L.P.  
Big Eddy Unit #202  
Section 24, T21S, R28E  
Eddy County, New Mexico

Confirmation  
Sampling  
Plan

BOPCO, L.P.  
Big Eddy Unit #202  
Section 24, T-21-S, R-28-E  
Eddy County, New Mexico

# **SAMPLE DATA SUMMARY**

Big Eddy Unit #202





[illegible]

BOPCO, L.P.  
Big Eddy Unit #202  
Section 24, T-21-S, R-28-E  
Eddy County, New Mexico

**ANALYTICAL RESULTS**  
**XENCO LABORATORIES**  
Big Eddy Unit #202

# **Analytical Report 321733**

**for**

**Sport Environmental Services, PLLC**

**Project Manager: Debi Smith**

**BEPCO**

**Big Eddy Unit 202**

**20-JAN-09**



**12600 West I-20 East Odessa, Texas 79765**

**Texas certification numbers:**

**Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX**

**Florida certification numbers:**

**Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429**

**South Carolina certification numbers:**

**Norcross(Atlanta), GA 98015**

**North Carolina certification numbers:**

**Norcross(Atlanta), GA 483**

**Houston - Dallas - San Antonio - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta**



20-JAN-09

Project Manager: **Debi Smith**  
**Sport Environmental Services, PLLC**  
502 North Big Spring Street  
Midland, TX 79701

Reference: XENCO Report No: **321733**  
**BEPCO**  
Project Address:

**Debi Smith:**

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 321733. 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. 321733 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

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.*

*Certified and approved by numerous States and Agencies.*

*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*

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## Sample Cross Reference 321733



Sport Environmental Services, PLLC, Midland, TX  
BEPCO

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
NWF-001	S	Jan-06-09 09:00	2 ft	321733-001
NEF-001	S	Jan-06-09 09:10	2 ft	321733-002
SWF-001	S	Jan-06-09 09:22	5 ft	321733-003
Center-001	S	Jan-06-09 09:34	21 ft	321733-004
EEW1-2 Composite	S	Jan-06-09 00:00		321733-007
SEW1-2 Composite	S	Jan-06-09 00:00		321733-010
NEW1-2 Composite	S	Jan-06-09 00:00		321733-013
WEW1-2 Composite	S	Jan-06-09 00:00		321733-016
CEF-001	S	Jan-06-09 10:49	11 ft	321733-017
ECF-001	S	Jan-06-09 10:57	2 ft	321733-018
CWF-001	S	Jan-06-09 11:06	2 ft	321733-019
WCF-001	S	Jan-06-09 11:10	2 ft	321733-020
SEF-001	S	Jan-06-09 11:22	2 ft	321733-021
NCF-001	S	Jan-06-09 11:33	2 ft	321733-022
SPT Composite	S	Jan-06-09 00:00		321733-023



# Certificate of Analysis Summary 321733

Sport Environmental Services, PLLC, Midland, TX



Project Id: Big Eddy Unit 202

Contact: Debi Smith

Project Name: BEPCO

Date Received in Lab: Tue Jan-06-09 03 23 pm

Report Date: 20-JAN-09


Project Location:

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	321733-001	321733-002	321733-003	321733-004	321733-007	321733-010
	<b>Field Id:</b>	NWF-001	NEF-001	SWF-001	Center-001	EEW1-2 Composite	SEW1-2 Composite
	<b>Depth:</b>	2 ft	2 ft	5 ft	21 ft		
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<b>Sampled:</b>	Jan-06-09 09 00	Jan-06-09 09 10	Jan-06-09 09 22	Jan-06-09 09 34	Jan-06-09 00 00	Jan-06-09 00 00
<b>Anions by EPA 300</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		140 5 26	109 5 46	1740 27 9	62 9 5 39	50 7 5 20	390 11 2
<b>BTEX by EPA 8021B</b>	<b>Extracted:</b>	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00
	<b>Analyzed:</b>	Jan-08-09 00 25	Jan-08-09 00 49	Jan-08-09 01 12	Jan-08-09 01 36	Jan-08-09 02 00	Jan-08-09 02 24
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0010	ND 0 0011
Toluene		ND 0 0021	ND 0 0022	ND 0 0022	ND 0 0022	ND 0 0021	ND 0 0022
Ethylbenzene		ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0010	ND 0 0011
m,p-Xylenes		ND 0 0021	ND 0 0022	ND 0 0022	ND 0 0022	ND 0 0021	ND 0 0022
o-Xylene		ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0010	ND 0 0011
Total Xylenes		ND 0 0021	ND 0 0022	ND 0 0022	ND 0 0022	ND 0 0021	ND 0 0022
Total BTEX		ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0010	ND 0 0011
<b>Percent Moisture</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50
	<b>Units/RL:</b>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		4 92 1 00	8 49 1 00	10 37 1 00	7 18 1 00	3 78 1 00	10 67 1 00
<b>TPH By SW8015 Mod</b>	<b>Extracted:</b>	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00
	<b>Analyzed:</b>	Jan-07-09 12 45	Jan-07-09 13 08	Jan-07-09 13 31	Jan-07-09 13 54	Jan-07-09 14 17	Jan-07-09 14 40
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 15 8	ND 16 4	ND 16 7	ND 16 2	ND 15 6	ND 16 8
C12-C28 Diesel Range Hydrocarbons		ND 15 8	ND 16 4	ND 16 7	ND 16 2	ND 15 6	ND 16 8
C28-C35 Oil Range Hydrocarbons		ND 15 8	ND 16 4	ND 16 7	ND 16 2	ND 15 6	ND 16 8
Total TPH		ND 15 8	ND 16 4	ND 16 7	ND 16 2	ND 15 6	ND 16 8

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Brent Barron  
Odessa Laboratory Director



# Certificate of Analysis Summary 321733

Sport Environmental Services, PLLC, Midland, TX

Project Name: BEPCO



Project Id: Big Eddy Unit 202

Contact: Debi Smith

Date Received in Lab: Tue Jan-06-09 03 23 pm

Report Date: 20-JAN-09

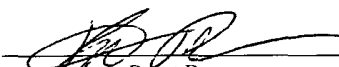
Project Location:

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	321733-001	321733-002	321733-003	321733-004	321733-007	321733-010
	<b>Field Id:</b>	NWF-001	NEF-001	SWF-001	Center-001	EEW1-2 Composite	SEW1-2 Composite
	<b>Depth:</b>	2 ft	2 ft	5 ft	21 ft		
	<b>Matrix:</b>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<b>Sampled:</b>	Jan-06-09 09 00	Jan-06-09 09 10	Jan-06-09 09 22	Jan-06-09 09 34	Jan-06-09 00 00	Jan-06-09 00 00
<b>TPH by EPA 418.1</b>	<b>Extracted:</b>						
	<b>Analyzed:</b>	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27
	<b>Units/RL:</b>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
TPH, Total Petroleum Hydrocarbons		ND 10 5	ND 10 9	ND 11 2	ND 10 8	ND 10 4	ND 11 2

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Brent Barron  
Odessa Laboratory Director



# Certificate of Analysis Summary 321733

Sport Environmental Services, PLLC, Midland, TX

Project Name: BEPCO



Project Id: Big Eddy Unit 202

Contact: Debi Smith

Project Location:

Date Received in Lab: Tue Jan-06-09 03 23 pm


Report Date: 20-JAN-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id</i>	321733-013	321733-016	321733-017	321733-018	321733-019	321733-020
	<i>Field Id</i>	NEW1-2 Composite	WEW1-2 Composite	CEF-001	ECF-001	CWF-001	WCF-001
	<i>Depth</i>			11 ft	2 ft	2 ft	2 ft
	<i>Matrix</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled</i>	Jan-06-09 00 00	Jan-06-09 00 00	Jan-06-09 10 49	Jan-06-09 10 57	Jan-06-09 11 06	Jan-06-09 11 10
<b>Anions by EPA 300</b>	<i>Extracted</i>	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20
	<i>Analyzed</i>	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		36 4 5 08	244 5 48	156 5 32	92 2 5 63	240 5 49	314 11 0
<b>BTEX by EPA 8021B</b>	<i>Extracted</i>	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00
	<i>Analyzed</i>	Jan-08-09 02 49	Jan-08-09 03 12	Jan-08-09 03 36	Jan-08-09 04 00	Jan-08-09 05 11	Jan-08-09 05 35
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		ND 0 0010	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011
Toluene		ND 0 0020	ND 0 0022	ND 0 0021	ND 0 0023	ND 0 0022	ND 0 0022
Ethylbenzene		ND 0 0010	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011
m,p-Xylenes		ND 0 0020	ND 0 0022	ND 0 0021	ND 0 0023	ND 0 0022	ND 0 0022
o-Xylene		ND 0 0010	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011
Total Xylenes		ND 0 0020	ND 0 0022	ND 0 0021	ND 0 0023	ND 0 0022	ND 0 0022
Total BTEX		ND 0 0010	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011	ND 0 0011
<b>Percent Moisture</b>	<i>Extracted</i>	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50
	<i>Analyzed</i>	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 14 50
	<i>Units/RL</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		1 58 1 00	8 78 1 00	6 03 1 00	11 16 1 00	8 87 1 00	8 84 1 00
<b>TPH By SW8015 Mod</b>	<i>Extracted</i>	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00
	<i>Analyzed</i>	Jan-07-09 15 04	Jan-07-09 15 27	Jan-07-09 15 51	Jan-07-09 16 14	Jan-07-09 16 59	Jan-07-09 17 22
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
C6-C12 Gasoline Range Hydrocarbons		ND 15 2	ND 16 4	ND 16 0	ND 16 9	ND 16 5	ND 16 5
C12-C28 Diesel Range Hydrocarbons		ND 15 2	ND 16 4	ND 16 0	ND 16 9	ND 16 5	ND 16 5
C28-C35 Oil Range Hydrocarbons		ND 15 2	ND 16 4	ND 16 0	ND 16 9	ND 16 5	ND 16 5
Total TPH		ND 15 2	ND 16 4	ND 16 0	ND 16 9	ND 16 5	ND 16 5

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Brent Barron  
Odessa Laboratory Director





# Certificate of Analysis Summary 321733

Sport Environmental Services, PLLC, Midland, TX

Project Name: BEPCO



Project Id: Big Eddy Unit 202

Contact: Debi Smith

Project Location:

Date Received in Lab: Tue Jan-06-09 03 23 pm


Report Date: 20-JAN-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id</i>	321733-013	321733-016	321733-017	321733-018	321733-019	321733-020
	<i>Field Id</i>	NEW1-2 Composite	WEW1-2 Composite	CEF-001	ECF-001	CWF-001	WCF-001
	<i>Depth</i>			11 ft	2 ft	2 ft	2 ft
	<i>Matrix</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled</i>	Jan-06-09 00 00	Jan-06-09 00 00	Jan-06-09 10 49	Jan-06-09 10 57	Jan-06-09 11 06	Jan-06-09 11 10
TPH by EPA 418.1	<i>Extracted</i>	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27	Jan-19-09 16 27
	<i>Analyzed</i>						
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
TPH, Total Petroleum Hydrocarbons		ND 10 2	ND 11 0	ND 10 6	ND 11 3	ND 11 0	ND 11 0

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Brent Barron  
Odessa Laboratory Director



# Certificate of Analysis Summary 321733

Sport Environmental Services, PLLC, Midland, TX

Project Name: BEPCO



Project Id: Big Eddy Unit 202

Contact: Debi Smith

Project Location:

Date Received in Lab: Tue Jan-06-09 03 23 pm


Report Date: 20-JAN-09

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id</b>	321733-021	321733-022	321733-023			
	<b>Field Id</b>	SEF-001	NCF-001	5PT Composite			
	<b>Depth:</b>	2 ft	2 ft				
	<b>Matrix</b>	SOIL	SOIL	SOIL			
	<b>Sampled</b>	Jan-06-09 11 22	Jan-06-09 11 33	Jan-06-09 00 00			
<b>Anions by EPA 300</b>	<b>Extracted</b>						
	<b>Analyzed</b>	Jan-07-09 10 20	Jan-07-09 10 20	Jan-07-09 10 20			
	<b>Units/RL</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		72 7 5 13	32 1 5 14	485 10 7			
<b>BTEX by EPA 8021B</b>	<b>Extracted</b>	Jan-07-09 14 00	Jan-07-09 14 00	Jan-07-09 14 00			
	<b>Analyzed</b>	Jan-08-09 05 59	Jan-08-09 06 23	Jan-08-09 06 47			
	<b>Units/RL</b>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		ND 0 0010	ND 0 0010	ND 0 0011			
Toluene		ND 0 0021	ND 0 0021	ND 0 0021			
Ethylbenzene		ND 0 0010	ND 0 0010	ND 0 0011			
m,p-Xylenes		ND 0 0021	ND 0 0021	ND 0 0021			
o-Xylene		ND 0 0010	ND 0 0010	ND 0 0011			
Total Xylenes		ND 0 0021	ND 0 0021	ND 0 0021			
Total BTEX		ND 0 0010	ND 0 0010	ND 0 0011			
<b>Percent Moisture</b>	<b>Extracted</b>						
	<b>Analyzed</b>	Jan-07-09 14 50	Jan-07-09 14 50	Jan-07-09 10 00			
	<b>Units/RL</b>	% RL	% RL	% RL			
Percent Moisture		2 46 1 00	2 74 1 00	6 67 1 00			
<b>TPH By SW8015 Mod</b>	<b>Extracted</b>	Jan-07-09 09 00	Jan-07-09 09 00	Jan-07-09 09 00			
	<b>Analyzed</b>	Jan-07-09 17 45	Jan-07-09 18 08	Jan-07-09 18 32			
	<b>Units/RL</b>	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		ND 15 4	ND 15 4	ND 16 1			
C12-C28 Diesel Range Hydrocarbons		ND 15 4	ND 15 4	ND 16 1			
C28-C35 Oil Range Hydrocarbons		ND 15 4	ND 15 4	ND 16 1			
Total TPH		ND 15 4	ND 15 4	ND 16 1			

This analytical report and the entire data package it represents has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron  
Odessa Laboratory Director



# Certificate of Analysis Summary 321733

Sport Environmental Services, PLLC, Midland, TX

Project Name: BEPCO



Project Id: Big Eddy Unit 202

Contact: Debi Smith

Date Received in Lab: Tue Jan-06-09 03 23 pm

Report Date: 20-JAN-09


Project Location:

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id.</i>	321733-021	321733-022	321733-023			
	<i>Field Id</i>	SEF-001	NCF-001	SPT Composite			
	<i>Depth</i>	2 ft	2 ft				
	<i>Matrix</i>	SOIL	SOIL	SOIL			
	<i>Sampled</i>	Jan-06-09 11 22	Jan-06-09 11 33	Jan-06-09 00 00			
TPH by EPA 418.1	<i>Extracted.</i>	Jan-19-09 17 22	Jan-19-09 17 22	Jan-19-09 17 22			
	<i>Analyzed</i>						
	<i>Units/RL</i>	mg/kg RL	mg/kg RL	mg/kg RL			
TPH, Total Petroleum Hydrocarbons		ND 10 3	ND 10 3	ND 10 7			

This analytical report and the entire data package it represents has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron  
Odessa Laboratory Director

- 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.

\* Outside XENCO's scope of NELAC Accreditation.

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(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116

**Form 2 - Surrogate Recoveries**

Project Name: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745824

Sample: 321733-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

**SURROGATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Amount Found [A]</b>	<b>True Amount [B]</b>	<b>Recovery %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>					
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0229	0.0300	76	80-120	*

Lab Batch #: 745824

Sample: 321733-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

**SURROGATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Amount Found [A]</b>	<b>True Amount [B]</b>	<b>Recovery %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>					
1,4-Difluorobenzene	0.0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 745824

Sample: 321733-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

**SURROGATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Amount Found [A]</b>	<b>True Amount [B]</b>	<b>Recovery %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>					
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 745824

Sample: 321733-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

**SURROGATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Amount Found [A]</b>	<b>True Amount [B]</b>	<b>Recovery %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>					
1,4-Difluorobenzene	0.0342	0.0300	114	80-120	
4-Bromofluorobenzene	0.0225	0.0300	75	80-120	*

Lab Batch #: 745824

Sample: 321733-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

**SURROGATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Amount Found [A]</b>	<b>True Amount [B]</b>	<b>Recovery %R [D]</b>	<b>Control Limits %R</b>	<b>Flags</b>
<b>Analytes</b>					
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0223	0.0300	74	80-120	*

\*\* 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: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745824

Sample: 321733-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0219	0.0300	73	80-120	*

Lab Batch #: 745824

Sample: 321733-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0197	0.0300	66	80-120	*

Lab Batch #: 745824

Sample: 321733-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0208	0.0300	69	80-120	*

Lab Batch #: 745824

Sample: 321733-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	80-120	
4-Bromofluorobenzene	0.0204	0.0300	68	80-120	*

Lab Batch #: 745824

Sample: 321733-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0336	0.0300	112	80-120	
4-Bromofluorobenzene	0.0216	0.0300	72	80-120	*

\*\* 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: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745824

Sample: 321733-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0340	0.0300	113	80-120	
4-Bromofluorobenzene	0.0197	0.0300	66	80-120	*

Lab Batch #: 745824

Sample: 321733-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0339	0.0300	113	80-120	
4-Bromofluorobenzene	0.0191	0.0300	64	80-120	*

Lab Batch #: 745824

Sample: 321733-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0191	0.0300	64	80-120	*

Lab Batch #: 745824

Sample: 321733-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0341	0.0300	114	80-120	
4-Bromofluorobenzene	0.0192	0.0300	64	80-120	*

Lab Batch #: 745824

Sample: 321733-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1,4-Difluorobenzene	0.0337	0.0300	112	80-120	
4-Bromofluorobenzene	0.0192	0.0300	64	80-120	*

\*\* 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: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745824

Sample: 321733-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0334	0.0300	111	80-120	
4-Bromofluorobenzene	0.0182	0.0300	61	80-120	*

Lab Batch #: 745824

Sample: 321733-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0185	0.0300	62	80-120	*

Lab Batch #: 745824

Sample: 522540-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0337	0.0300	112	80-120	

Lab Batch #: 745824

Sample: 522540-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	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	0.0239	0.0300	80	80-120	

Lab Batch #: 745824

Sample: 522540-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0301	0.0300	100	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

\*\* 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: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745795

Sample: 321733-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	95.1	100	95	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

Lab Batch #: 745795

Sample: 321733-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	93.5	100	94	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 745795

Sample: 321733-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	60.7	50.0	121	70-135	

Lab Batch #: 745795

Sample: 321733-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	53.0	50.0	106	70-135	

Lab Batch #: 745795

Sample: 321733-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	93.4	100	93	70-135	
o-Terphenyl	47.6	50.0	95	70-135	

\*\* Surrogates outside limits, data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 \times A / B$

All results are based on MDL and validated for QC purposes



## Form 2 - Surrogate Recoveries

Project Name: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745795

Sample: 321733-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	92.9	100	93	70-135	
o-Terphenyl	47.2	50.0	94	70-135	

Lab Batch #: 745795

Sample: 321733-007 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	93.8	100	94	70-135	
o-Terphenyl	46.6	50.0	93	70-135	

Lab Batch #: 745795

Sample: 321733-010 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	89.6	100	90	70-135	
o-Terphenyl	45.5	50.0	91	70-135	

Lab Batch #: 745795

Sample: 321733-013 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	87.1	100	87	70-135	
o-Terphenyl	42.6	50.0	85	70-135	

Lab Batch #: 745795

Sample: 321733-016 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	94.6	100	95	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

\*\* 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: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745795

Sample: 321733-017 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	94.8	100	95	70-135	
o-Terphenyl	47.5	50.0	95	70-135	

Lab Batch #: 745795

Sample: 321733-018 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	96.5	100	97	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 745795

Sample: 321733-019 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	48.6	50.0	97	70-135	

Lab Batch #: 745795

Sample: 321733-020 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	97.3	100	97	70-135	
o-Terphenyl	48.9	50.0	98	70-135	

Lab Batch #: 745795

Sample: 321733-021 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	96.5	100	97	70-135	
o-Terphenyl	47.7	50.0	95	70-135	

\*\* Surrogates outside limits, data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 \times A / B$

All results are based on MDL and validated for QC purposes



## Form 2 - Surrogate Recoveries

Project Name: BEPCO

Work Orders : 321733,

Project ID: Big Eddy Unit 202

Lab Batch #: 745795

Sample: 321733-022 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.4	100	93	70-135	
o-Terphenyl	46.2	50.0	92	70-135	

Lab Batch #: 745795

Sample: 321733-023 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.6	100	99	70-135	
o-Terphenyl	49.3	50.0	99	70-135	

Lab Batch #: 745795

Sample: 522530-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 745795

Sample: 522530-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.9	100	94	70-135	
o-Terphenyl	47.6	50.0	95	70-135	

Lab Batch #: 745795

Sample: 522530-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

### SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	51.9	50.0	104	70-135	

\*\* Surrogates outside limits, data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 \times A / B$

All results are based on MDL and validated for QC purposes



# Blank Spike Recovery



Project Name: BEPCO

Work Order #: 321733

Project ID:

Big Eddy Unit 202

Lab Batch #: 745763

Sample: 745763-1-BKS

Matrix: Solid

Date Analyzed: 01/07/2009

Date Prepared: 01/07/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

## BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.76	98	90-110	

Blank Spike Recovery [D] =  $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes

Project Name: BEPCO

Work Order #: 321733

Analyst: ASA

Date Prepared: 01/07/2009

Project ID: Big Eddy Unit 202

Date Analyzed: 01/07/2009

Lab Batch ID: 745824

Sample: 522540-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	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
Analytes											
Benzene	ND	0 1000	0 1006	101	0 1	0 1012	101	1	70-130	35	
Toluene	ND	0 1000	0 0973	97	0 1	0 0976	98	0	70-130	35	
Ethylbenzene	ND	0 1000	0 1015	102	0 1	0 1022	102	1	71-129	35	
m,p-Xylenes	ND	0 2000	0 2072	104	0 2	0 2073	104	0	70-135	35	
o-Xylene	ND	0 1000	0 1006	101	0 1	0 1004	100	0	71-133	35	

Analyst: ASA

Date Prepared: 01/19/2009

Date Analyzed: 01/19/2009

Lab Batch ID: 746881

Sample: 746881-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by EPA 418.1	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
Analytes											
TPH, Total Petroleum Hydrocarbons	ND	2500	2500	100	2500	2420	97	3	65-135	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

Project Name: BEPCO

Work Order #: 321733

Analyst: ASA

Date Prepared: 01/19/2009

Project ID: Big Eddy Unit 202

Date Analyzed: 01/19/2009

Lab Batch ID: 746925

Sample: 746925-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by EPA 418.1	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
<b>Analytes</b>											
TPH, Total Petroleum Hydrocarbons	ND	2500	2200	88	2500	2250	90	2	65-135	35	

Analyst: BHW

Date Prepared: 01/07/2009

Date Analyzed: 01/07/2009

Lab Batch ID: 745795

Sample: 522530-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	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
<b>Analytes</b>											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	924	92	1000	903	90	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	953	95	1000	934	93	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



# Form 3 - MS Recoveries

Project Name: BEPCO



Work Order #: 321733

Lab Batch #: 745763

Date Analyzed: 01/07/2009

QC- Sample ID: 321733-001 S

Reporting Units: mg/kg

Date Prepared: 01/07/2009

Batch #: 1

Project ID: Big Eddy Unit 202

Analyst: LATCOR

Matrix: Soil

## MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	140	105	268	122	80-120	X

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



**Project Name: BEPCO**

**Work Order # : 321733**

**Project ID: Big Eddy Unit 202**

**Lab Batch ID: 745824**

**QC- Sample ID: 321733-001 S**

**Batch #: 1 Matrix: Soil**

**Date Analyzed: 01/08/2009**

**Date Prepared: 01/07/2009**

**Analyst: ASA**

**Reporting Units: mg/kg**

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>BTEX by EPA 8021B</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
Benzene	ND	0 1052	0 0851	81	0 1052	0 0884	84	4	70-130	35	
Toluene	ND	0 1052	0 0813	77	0 1052	0 0827	79	3	70-130	35	
Ethylbenzene	ND	0 1052	0 0846	80	0 1052	0 0845	80	0	71-129	35	
m,p-Xylenes	ND	0 2103	0 1686	80	0 2103	0 1706	81	1	70-135	35	
o-Xylene	ND	0 1052	0 0806	77	0 1052	0 0822	78	1	71-133	35	

**Lab Batch ID: 746881**

**QC- Sample ID: 321733-023 S**

**Batch #: 1 Matrix: Soil**

**Date Analyzed: 01/19/2009**

**Date Prepared: 01/19/2009**

**Analyst: ASA**

**Reporting Units: mg/kg**

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH by EPA 418.1</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
TPH, Total Petroleum Hydrocarbons	ND	2680	2750	103	2680	2720	101	2	65-135	35	

**Lab Batch ID: 746925**

**QC- Sample ID: 321733-001 S**

**Batch #: 1 Matrix: Soil**

**Date Analyzed: 01/19/2009**

**Date Prepared: 01/19/2009**

**Analyst: ASA**

**Reporting Units: mg/kg**

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY**

<b>TPH by EPA 418.1</b>	<b>Parent Sample Result [A]</b>	<b>Spike Added [B]</b>	<b>Spiked Sample Result [C]</b>	<b>Spiked Sample %R [D]</b>	<b>Spike Added [E]</b>	<b>Duplicate Spiked Sample Result [F]</b>	<b>Spiked Dup. %R [G]</b>	<b>RPD %</b>	<b>Control Limits %R</b>	<b>Control Limits %RPD</b>	<b>Flag</b>
<b>Analytes</b>											
TPH, Total Petroleum Hydrocarbons	ND	2630	2310	88	2630	2380	90	2	65-135	35	

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

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

ND = Not Detected, I = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit



# Form 3 - MS / MSD Recoveries



Project Name: BEPCO

Work Order #: 321733

Project ID: Big Eddy Unit 202

Lab Batch ID: 745795

QC- Sample ID: 321733-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 01/07/2009

Date Prepared: 01/07/2009

Analyst: BHW

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-C12 Gasoline Range Hydrocarbons	ND	1090	1030	94	1090	1000	92	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1090	1060	97	1090	1050	96	1	70-135	35	

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

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

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



## Sample Duplicate Recovery



Project Name: BEPCO

Work Order #: 321733

Lab Batch #: 745763  
Date Analyzed: 01/07/2009  
QC- Sample ID: 321733-001 D  
Reporting Units: mg/kg

Project ID: Big Eddy Unit 202  
Date Prepared: 01/07/2009  
Analyst: LATCOR  
Batch #: 1  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	140	146	4	20	

Lab Batch #: 745747  
Date Analyzed: 01/07/2009  
QC- Sample ID: 321733-001 D  
Reporting Units: %

Date Prepared: 01/07/2009  
Analyst: BEV  
Batch #: 1  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	4.92	5.42	10	20	

Lab Batch #: 745803  
Date Analyzed: 01/07/2009  
QC- Sample ID: 321755-007 D  
Reporting Units: %

Date Prepared: 01/07/2009  
Analyst: WRU  
Batch #: 1  
Matrix: Soil

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

Spike Relative Difference  $RPD = 200 * |(B-A)/(B+A)|$   
All Results are based on MDL and validated for QC purposes

# Environmental Lab of Texas

A Xenso Laboratories Company

12600 West 120 East  
Odessa, Texas 79765

Phone 432-553-1800  
Fax 432-553-1713

Project Manager

John S. Smith

Company Name

Spart Environmental

Company Address

512 N. Bic & Spring

City/State/Zip

Midland TX 79701

Telephone No

432 683 1100

Fax No

Sampler Signature

[Signature]

e-mail

(lab use only)

ORDER # 321733

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field # of Containers	Matrix	Analyze For	Report Format	Standard	TRAP	NIDES
01 NWT-661*		1'	1'-2'	4/24/04	4:00	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
02 NEF-661*		2'	2'-3'	4/24/04	4:10	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
03 SWF-661*		3'	3'-4'	4/24/04	4:20	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
04 Center-661*		4'	4'-5'	4/24/04	4:30	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
05 EEW-661	Composite	4'	4'-5'	4/24/04	4:40	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
06 EEW-661	Composite	4'	4'-5'	4/24/04	4:50	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
07 SW-661	Composite	4'	4'-5'	4/24/04	5:00	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
08 NWT-661	Composite	4'	4'-5'	4/24/04	5:10	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
09 NWT-661	Composite	4'	4'-5'	4/24/04	5:20	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
10 NWT-661	Composite	4'	4'-5'	4/24/04	5:30	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
11 NWT-661	Composite	4'	4'-5'	4/24/04	5:40	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			
12 NWT-661	Composite	4'	4'-5'	4/24/04	5:50	1	Soil - Groundwater Sample	TCAP TOTAL SAR / ESP / CEC Anion (Cl, SO4, Nitrate) Cation (Ca, Mg, Na, K) TPH TX 1005 TPH 41317 (0.15%) TPH 41317 (0.15%)	Standard			

Special Instructions: Composite NWT, SWF, Center, NEF and SEF for SPI composite

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# Environmental Lab of Texas

A Xenco Laboratories Company

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West 120 East  
Odessa, Texas 79765

Project Manager

Debra S. Smith

Company Name

Spot Environmental

Company Address

Project Name

PRKCO

Project #

Big Eddy Unit 202

Project Loc

PO #

Report Format

Standard

TRRP

NPDES

Fax No

e-mail

Sampler Signature

Abbity

(lab use only)

ORDER # 32173

Lab # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field # of Containers	Matrix	Preservation & # of Containers	Analyte For	ICLIP TOTAL	Standard TAT
14	10201-001	4'	1-6-04	10:26		1	Soil	1	Asbestos	1	Standard TAT
15	10202-001	4'	1-6-04	10:49		1	Soil	1	Asbestos	1	Standard TAT
16	10203-001	2'	1-6-04	10:54		1	Soil	1	Asbestos	1	Standard TAT
17	10204-001	2'	1-6-04	11:06		1	Soil	1	Asbestos	1	Standard TAT
18	10205-001	2'	1-6-04	11:10		1	Soil	1	Asbestos	1	Standard TAT
19	10206-001	2'	1-6-04	11:26		1	Soil	1	Asbestos	1	Standard TAT
20	10207-001	2'	1-6-04	11:33		1	Soil	1	Asbestos	1	Standard TAT
21	10208-001	2'	1-6-04			1	Soil	1	Asbestos	1	Standard TAT
22	10209-001	2'	1-6-04			1	Soil	1	Asbestos	1	Standard TAT
23	10210-001	2'	1-6-04			1	Soil	1	Asbestos	1	Standard TAT

Special Instructions

Risk 21

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Date

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Date

Time

Received by

Date

Time

Received by

Date

Time

Retained by

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Time

Retained by

Date

Time

Retained by

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Time

Retained by

Date

Time

Temperature Upon Receipt

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15.73

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15.73

Temperature Upon Receipt

14.01

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Temperature Upon Receipt

14.01

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Temperature Upon Receipt

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**Environmental Lab of Texas**  
Variance/ Corrective Action Report- Sample Log-In

Client Det Sport Env  
Date/ Time 10/09/15 23  
Lab ID # 321733  
Initials al

**Sample Receipt Checklist**

				Client Initials
#1 Temperature of container/ cooler?	<u>Yes</u>	No	<u>0.0 °C</u>	
#2 Shipping container in good condition?	<u>Yes</u>	No		
#3 Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	<u>Not Present</u>	
#4 Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	<u>Not Present</u>	
#5 Chain of Custody present?	<u>Yes</u>	No		
#6 Sample instructions complete of Chain of Custody?	<u>Yes</u>	No		
#7 Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No		
#8 Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	<u>ID written on Cont / Ltd</u>	
#9 Container label(s) legible and intact?	<u>Yes</u>	No	<u>Not Applicable</u>	
#10 Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No		
#11 Containers supplied by ELDT?	<u>Yes</u>	No		
#12 Samples in proper container/ bottle?	<u>Yes</u>	No	<u>See Below</u>	
#13 Samples properly preserved?	<u>Yes</u>	No	<u>See Below</u>	
#14 Sample bottles intact?	<u>Yes</u>	No		
#15 Preservations documented on Chain of Custody?	<u>Yes</u>	No		
#16 Containers documented on Chain of Custody?	<u>Yes</u>	No		
#17 Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	<u>See Below</u>	
#18 All samples received within sufficient hold time?	<u>Yes</u>	No	<u>See Below</u>	
#19 Subcontract of sample(s)?	<u>Yes</u>	No	<u>Not Applicable</u>	
#20 VOC samples have zero headspace?	<u>Yes</u>	No	<u>Not Applicable</u>	

**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 322075**

**for**

**Sport Environmental Services, PLLC**

**Project Manager: Debi Smith**

**BEPCO**

**Big Eddy Unit # 202**

**09-JAN-09**



**12600 West I-20 East Odessa, Texas 79765**

Texas certification numbers:

Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX

Florida certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429

South Carolina certification numbers:

Norcross(Atlanta), GA 98015

North Carolina certification numbers:

Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta



09-JAN-09

Project Manager: **Debi Smith**  
**Sport Environmental Services, PLLC**  
502 North Big Spring Street  
Midland, TX 79701

Reference: XENCO Report No: **322075**  
**BEPCO**  
Project Address:

**Debi Smith:**

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 322075. 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. 322075 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

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.*  
*Certified and approved by numerous States and Agencies*  
*A Small Business and Minority Status Company that delivers SERVICE and QUALITY*  
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**Sample Cross Reference 322075**



**Sport Environmental Services, PLLC, Midland, TX**  
BEPCO

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
SWF-002	S	Jan-08-09 14.30	7 ft	322075-001



# Certificate of Analysis Summary 322075

Sport Environmental Services, PLLC, Midland, TX



Project Id: Big Eddy Unit # 202

Contact: Debi Smith

Project Name: BEPCO

Date Received in Lab: Fri Jan-09-09 12 37 pm

Report Date: 09-JAN-09


Project Location:

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id</b>	322075-001					
	<b>Field Id:</b>	SWF-002					
	<b>Depth</b>	7 ft					
	<b>Matrix</b>	SOIL					
	<b>Sampled</b>	Jan-08-09 14 30					
<b>Anions by EPA 300</b>	<b>Extracted</b>						
	<b>Analyzed</b>	Jan-09-09 16 16					
	<b>Units/RL</b>	mg/kg RL					
Chloride		190 5 67					
<b>Percent Moisture</b>	<b>Extracted</b>						
	<b>Analyzed</b>	Jan-09-09 13 10					
	<b>Units/RL</b>	% RL					
Percent Moisture		11 78 1 00					

This analytical report and the entire data package it represents has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

  
Brent Barron  
Odessa Laboratory Director

- 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.

\* Outside XENCO's scope of NELAC Accreditation.

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 5332 Blackberry Drive, San Antonio TX 78238  
 2505 North Falkenburg Rd, Tampa, FL 33619  
 5757 NW 158th St, Miami Lakes, FL 33014  
 12600 West I-20 East, Odessa, TX 79765  
 842 Cantwell Lane, Corpus Christi, TX 78408

Phone	Fax
(281) 240-4200	(281) 240-4280
(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116



# Blank Spike Recovery



Project Name: BEPCO

Work Order #: 322075

Project ID:

Big Eddy Unit # 202

Lab Batch #: 746038

Sample: 746038-1-BKS

Matrix: Solid

Date Analyzed: 01/09/2009

Date Prepared: 01/09/2009

Analyst: LATCOR

Reporting Units: mg/kg

Batch #: 1

## BLANK /BLANK SPIKE RECOVERY STUDY

Anions by EPA 300 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	10.2	102	90-110	

Blank Spike Recovery [D] =  $100 \times [C] / [B]$

All results are based on MDL and validated for QC purposes



# Form 3 - MS Recoveries



Project Name: BEPCO

Work Order #: 322075

Lab Batch #: 746038

Project ID: Big Eddy Unit # 202

Date Analyzed: 01/09/2009

Date Prepared: 01/09/2009

Analyst: LATCOR

QC- Sample ID: 322011-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

## MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300  Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	113	100	103	92	80-120	

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



## Sample Duplicate Recovery



Project Name: BEPCO

Work Order #: 322075

Lab Batch #: 746038

Date Analyzed: 01/09/2009

QC- Sample ID: 322011-001 D

Reporting Units: mg/kg

Project ID: Big Eddy Unit # 202

Analyst: LATCOR

Batch #: 1

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	11.3	9.46	18	20	

Lab Batch #: 746041

Date Analyzed: 01/09/2009

QC- Sample ID: 322010-001 D

Reporting Units: %

Date Prepared: 01/09/2009

Analyst: BEV

Batch #: 1

Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	2.28	2.15	6	20	

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



**Environmental Lab of Texas**  
Variance/ Corrective Action Report- Sample Log-In

Client Spart Env  
Date/ Time 1/10/12 3:1  
Lab ID # 37701  
Initials UL

**Sample Receipt Checklist**

			Client Initials	
#1	Temperature of container/ cooler?	Yes No	100 °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 ELDT?	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

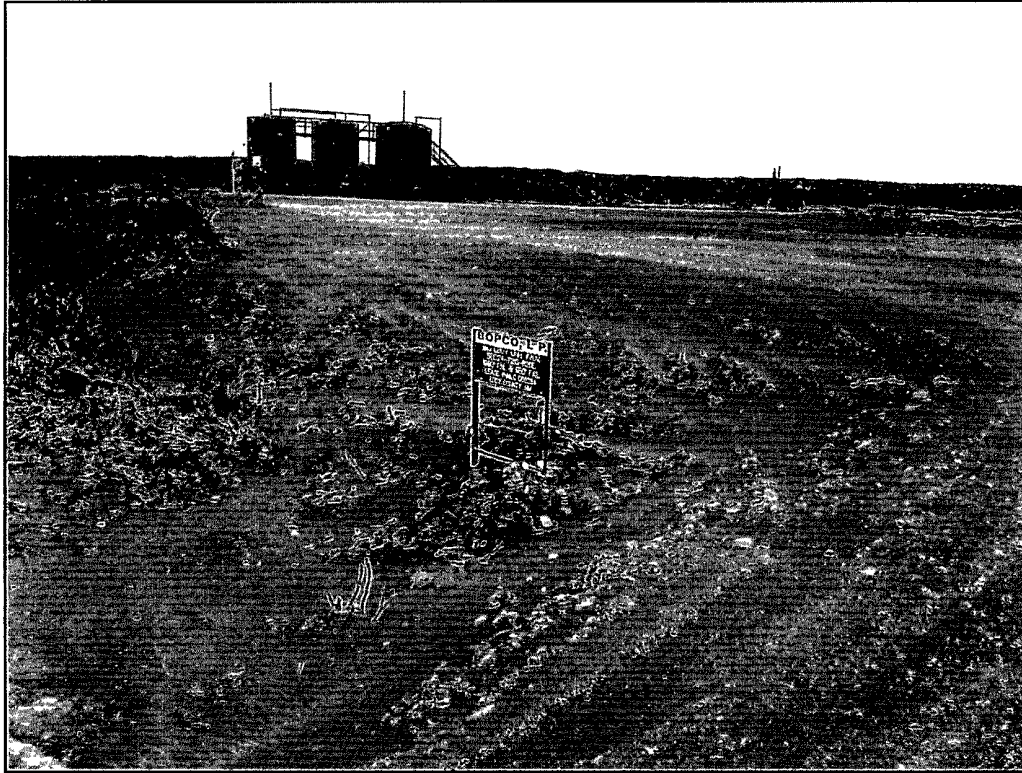
- Check all that Apply
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event



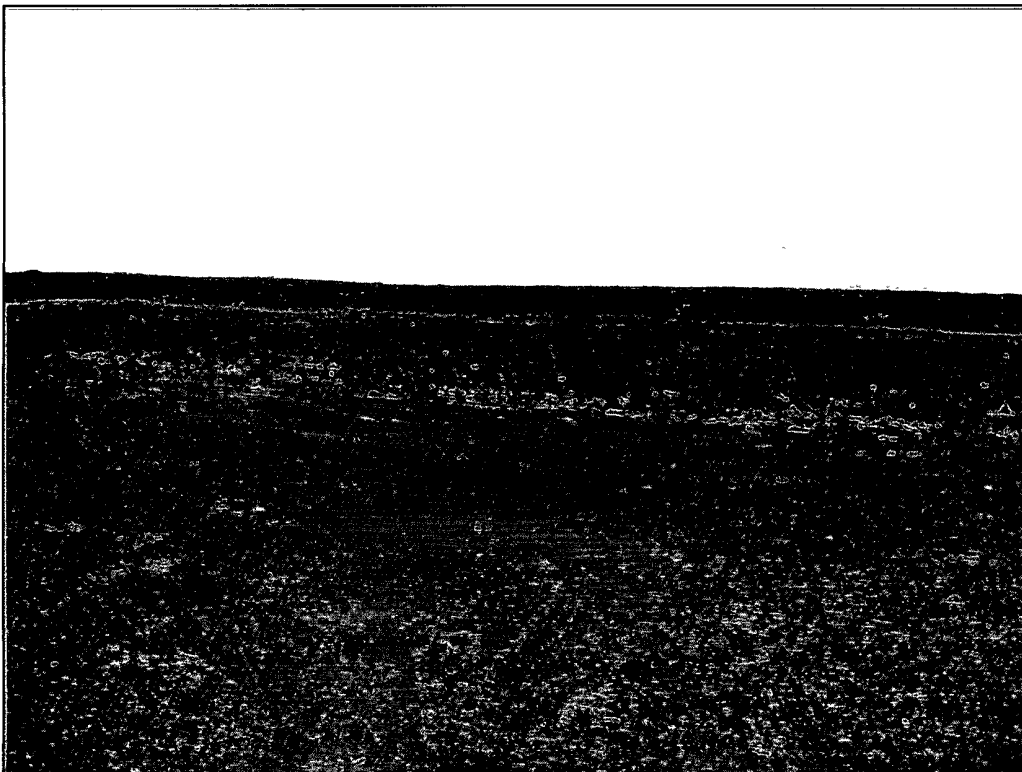
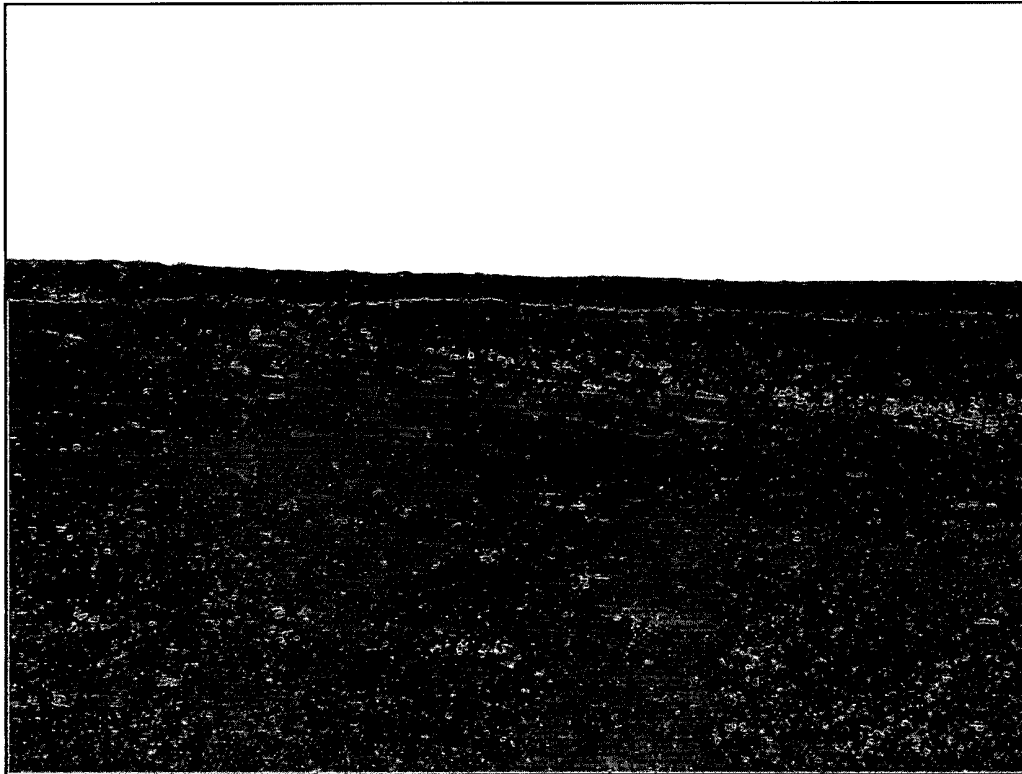
BOPCO, L.P.  
Big Eddy Unit #202  
Section 24, T-21-S, R-28-E  
Eddy County, New Mexico

**SITE PHOTOGRAPHS**  
**TAKEN March 11, 2009**  
Big Eddy Unit #202

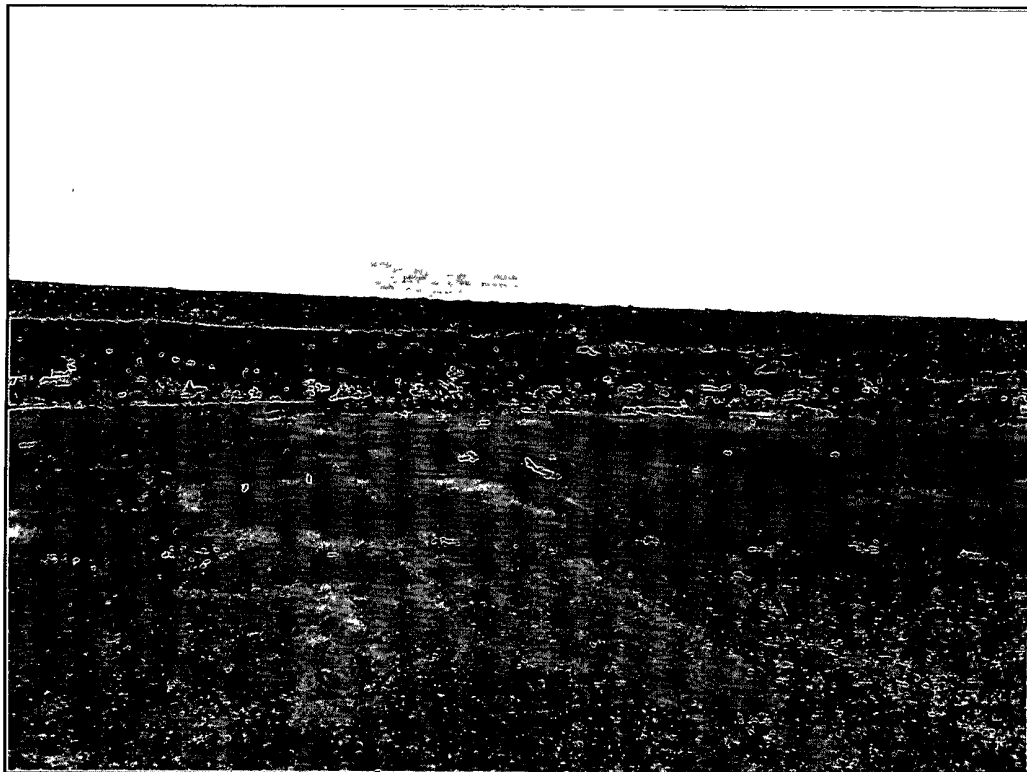
**BOPCO, LP – Big Eddy Unit #202**  
**Site Photographs taken March 11, 2009**  
(p. 1 of 4)



**BOPCO, LP – Big Eddy Unit #202**  
**Site Photographs taken March 11, 2009**  
(p. 2 of 4)



**BOPCO, LP – Big Eddy Unit #202**  
**Site Photographs taken March 11, 2009**  
(p. 3 of 4)



**BOPCO, LP – Big Eddy Unit #202**  
**Site Photographs taken March 11, 2009**  
(p. 4 of 4)

