Rec'd Jan. 5 2009
NMOCD-Artesia

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-144
July 21, 2008

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

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

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

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

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

1.
Operator: _Bass Enterprises Production Company_____ OGRID #:_____
Address: _P.O. Box 2760 Midland Tx 79702_____
Facility or well name: _Big Eddy Unit #151_____
API Number: _30-015-33157_____ OCD Permit Number: _____
U/L or Qtr/Qtr _H_____ Section _30_____ Township _21S_____ Range _28E_____ County: _Eddy_____
Center of Proposed Design: Latitude _32° 27' 14.299"_____ Longitude _104° 07' 14.7"_____ NAD: ☐1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness _12_____mil ☐ LLDPE ☒ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: _5,300___bbl Dimensions: L_150'_ x W_150'_ x D_10'__

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 _____

ENTERED
Closure

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

Accepted for record
NMOCD
JAN 08 2009

Final Closure Date 11/14/08

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

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

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

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

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

18.

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

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

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

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

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

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

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

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

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

☒ **Closure Completion Date: 11-14-2008**

22.
Closure Method:

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

☐ If different from approved plan, please explain.

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

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

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

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

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

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

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

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

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

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

25.
Operator Closure Certification:

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

Name (Print): DEAN CLEMMER Title: AREA PRODUCTION SUPERVISOR

Signature: _____ Date: 1/5/08

e-mail address: rdclemmer@basspet.com Telephone: 575-887-7329

JAN 08 2009

Accepted for record
NMOCD

SITE CLOSURE REPORT

BIG EDDY UNIT NO. 151 DRILLING PIT

EPI REF: MDP - 0001

UL-H (SE¼ OF THE NE¼) OF SECTION 30, T21S, R28E
~6.25 MILES NORTHEAST OF CARLSBAD, NEW MEXICO
EDDY COUNTY, NEW MEXICO
LATITUDE: N 32° 27' 14.30" LONGITUDE: W 104° 07' 14.70"

NOVEMBER 2008

PREPARED BY:

ENVIRONMENTAL PLUS, INC.
P.O. BOX 1558
2100 AVENUE O
EUNICE, NEW MEXICO 88231

PREPARED FOR:

BASS ENTERPRISES PRODUCTION COMPANY

ENVIRONMENTAL PLUS, INC.
CONSULTING AND ENVIRONMENTAL REMEDIATION

21 November, 2008

Mr. Mike Bratcher
Environmental Engineer
New Mexico Oil Conservation Division
1301 W. Grand Avenue
Artesia, New Mexico 88210

RE: **Closure Report**
Bass Enterprises Production Company (BEPCO)
Big Eddy Unit No. 151 Drilling Pit
UL-H (SE¼ of the NE¼) of Section 30, T21S, R28E
Latitude: N32° 27' 14.30"; Longitude: W104° 07' 14.70"
Eddy County, New Mexico
API No. 30-015-33157
EPI Ref. #MDP-0001

Dear Mr. Bratcher:

Environmental Plus Inc. (EPI) submits the attached *Closure Report Letter* describing remedial activities undertaken to remediate the above noted Drilling Pit. Remediation activities were undertaken by Republic Backhoe (Mr. Eric Garcia, 1513 W. Aspen, Lovington, New Mexico 88260). Information and data contained herein were taken from interviews, notes, documents, photographs and e-mails directed to/from Republic Backhoe.

Site Background

The Site is located in UL-H (SE ¼ of the NE ¼) of Section 30, T21S, R28E at an elevation of approximately 3,173 feet above mean sea level (amsl). The property is owned by the United States Department of the Interior and managed by the Bureau of Land Management (BLM). A search for water wells was completed utilizing the New Mexico Office of the State Engineers website and a database maintained by the United States Geological Survey (USGS). No wells (domestic, agriculture or public) or bodies of surface water exist within a 1,000 feet radius of the Site (reference *Figure 2*). Groundwater data indicates average water depth is approximately forty-three (43) feet below ground surface (bgs). Based on available information, it was projected distance between known impacted soil and groundwater is approximately twenty-one (21) vertical feet. Utilizing this information, New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this Site were determined as follows:

ENVIRONMENTAL PLUS, INC.

Parameter	Remedial Goal
Benzene	10 parts per million
BTEX	50 parts per million
TPH	100 parts per million

* Chloride residuals may not be capable of impacting local groundwater above NMWQCC Ground Water Standards of 250 mg/L

A. **Remedial Activities** – Contents of the pit (drill cuttings, drill mud and related material) were solidified and buried in the solidification pit by a previous contractor. Following solidification and burial of pit contents, five (5) soil borings were advanced from top of the drill pit bottom with initial TPH concentrations noted at ten (10) feet bgs (reference *Figure 4* for location and *Table 2* for analytical data). From soil boring analytical data, chloride and TPH concentrations above NMOCD Remedial Threshold goals extended to a known depth of twenty-two (22) feet bgs. Therefore, it was determined to excavate the area around TP-5 a depth of sixteen (16) to eighteen (18) feet bgs with excavation extending laterally and vertically upward towards the four (4) other TP points until chloride and TPH concentrations were below NMOCD Remedial Threshold goals. Excavating the described area began on 29 October, 2008 and ended 3 November, 2008. An area approximately 75-feet X 55-feet to a depth of 5-feet (15-feet bgs) was excavated with approximately 764-cubic yards (cy^3) of material eventually transported to CRI for disposal. After excavating to the depth of 5-feet (15-feet bgs), the subsurface changed from caliche to a hardened gypsum formation. Repeated efforts to excavate the gypsum using normal excavation equipment and methods proved to no avail. Soil samples collected on 30 October, 2008 at three (3) different sample points were sent to Cardinal Laboratories for analyses of chloride concentrations. Upon receipt of laboratory analytical results, the NMOCD (M. Bratcher – Artesia) was contacted for consultation. It was determined chloride concentrations were acceptable in view of subsurface formation conditions.

In the interim from 31 October, 2008 through 3 November, 2008 while awaiting laboratory analytical results, an existing ramp consisting of an area approximately 150-feet X 30-feet X 8-feet was removed and transported to CRI for disposal. An additional one (1) foot of sub-grade material was also excavated. Approximately 1,333 cy^3 of contaminated caliche were transported to CRI with approximately 1,500 cy^3 of uncontaminated caliche supplied on return trips. Uncontaminated caliche from CRI was used to rebuild the ingress/egress ramp

On 4 November, 2008 a twenty (20) mil polyethylene line was placed in the excavated area surrounding TP-5. The polyethylene liner consisting of an area of 99-feet X 79-feet was used to cover an excavated area of 75-feet X 55-feet extending up the sidewalls a minimum of 5-feet and overlapping the edges a minimum of –5 feet. Caliche was placed on the overlapped edges to prevent the polyethylene liner from

sloughing into the excavation bottom. Upon completion of this activity, the polyethylene liner was backfilled with suitable material.

On 30 October, 2008 stockpiled caliche northeast and north of the excavation was tested to determine acceptability as backfill material. Caliche directly north of the excavation (White) was used as backfill material while the northeast (Red) was rejected. During the period dating from 29 October to 5 November, 2008 approximately 2,500 yd^3 of impacted material were transported from the excavation site to CRI for disposal.

Prior to capping top portion of the excavation, the BLM was consulted to determine final remediation procedures. In compliance with BLM regulations, top soil was transported from BEPCo's yard from 9 November – 10 November, 2008 for use in the uppermost portion of the partially backfilled excavation. The imported top soil is comparable to native soil found in surrounding areas and should enhance growth of indigenous flora.

B. **Analytical Data** – On October 30, 2008 three (3) soil samples were collected from bottom on the center, south and north sections of the excavated area. Chloride concentrations ranged from 4,320 mg/Kg (South) to 720 mg/Kg (North) (reference *Figure #5*). While elevated above NMOCD Remedial Threshold goals, they were deemed manageable. However, to mitigate possibility of vertical migration of chlorides, a twenty (20) mil thick polyethylene liner was installed over the bottom and up the sidewalls.

   On the same date, two (2) soil samples were collected from stockpiled material located north and northeast of the excavation. Chloride concentrations ranged from 1,870 mg/Kg (Red-northeast) to <16 mg/Kg (White – north). Stockpiled material to the north was used to backfill the excavation while the northeast stockpile remained on site.

C. **Recommendations** – Remediation of the drilling pit was completed in compliance with NMOCD Rules and Regulations as physically possible. While in situ chloride concentrations are above NMOCD Remedial Threshold goals, the polyethylene liner will abate vertical migration of chlorides and protect groundwater from contamination. After contouring and discing the entire disturbed area, grass seed was broadcast over the surface. After application of grass seed, the area was watered to enhance growth development. The entire disturbed area was seeded with BLM Mixture #2.

Please address questions, concerns and/or needs for additional technical information to David P. Duncan at (575) 394-3481 (office), (575) 441-7802 (cellular) or via e-mail at dduncan@envplus.net.

Sincerely,

David P. Duncan
Senior Technical Manager
Civil Engineer

Cc: Eric Garcia, Republic Backhoe – Lovington, NM
John Amos, Lead Petroleum Engineering Tech, BLM – Carlsbad, NM
Kent A. Adams, Division Production Manager, BEPCo., L.P. -

Encl: Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map
Figure 4 – Excavation Map
Figure 5 – Sample Map
Table 1 – Well Data
Table 2 – Summary of Excavation Soil Sample Field Analyses and Laboratory Analytical Results
Attachment I – Site Photographs
Attachment II – Laboratory Analytical Results and Chain-of-Custody Forms
Attachment III - Informational NMOCD Form C-144

FIGURES

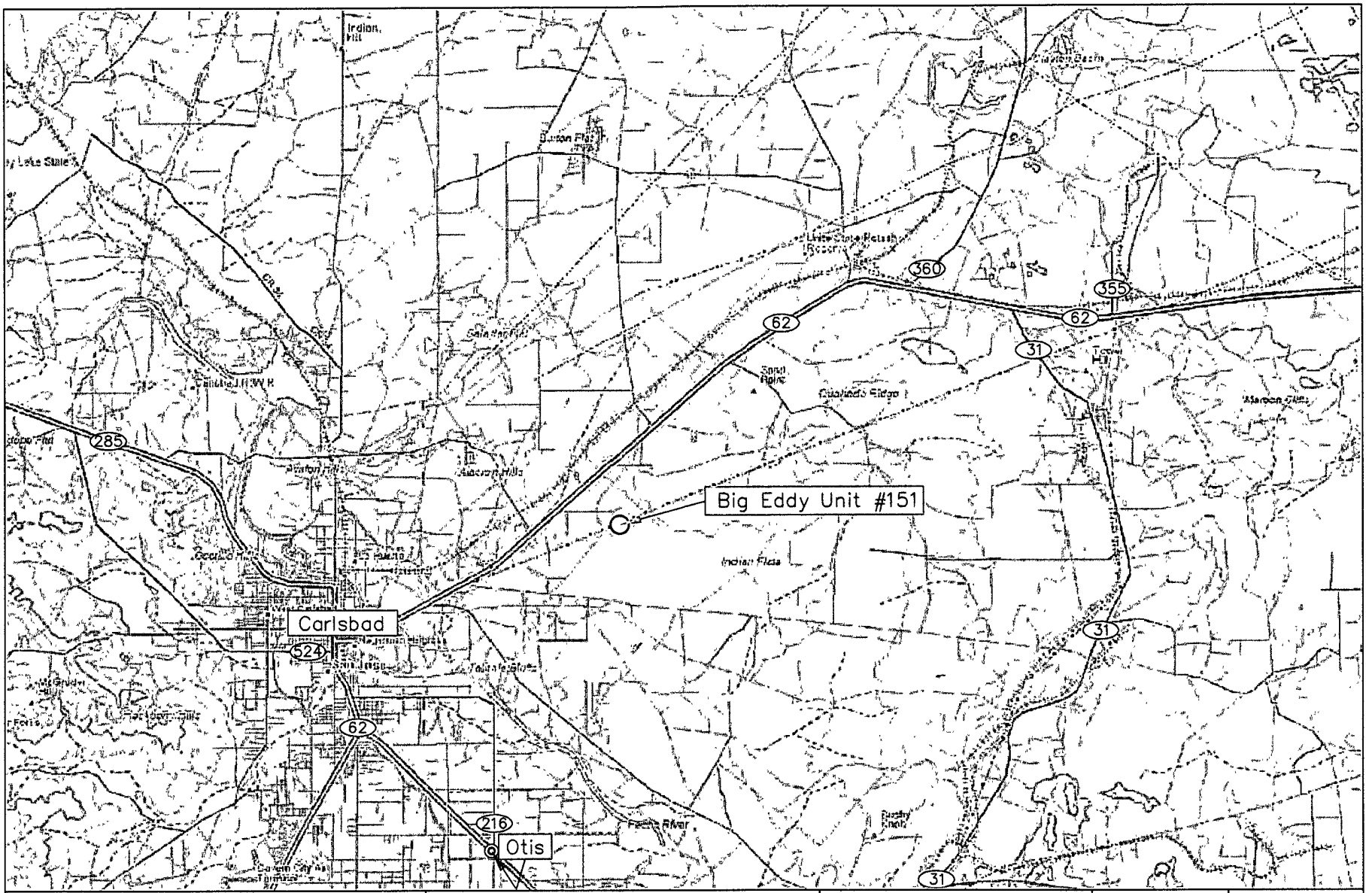


Figure 1 Area Map BEPCO Big Eddy Unit #151	Eddy County, New Mexico SE 1/4 of the NE 1/4, Sec. 30, T21S, R28E N 32° 27' 14.30" W 104° 07' 14.70" Elevation: 3,173 feet amsl	DWG By: D Dominguez November 2008 0 3 6 Miles	REVISED: SHEET 1 of 1

N

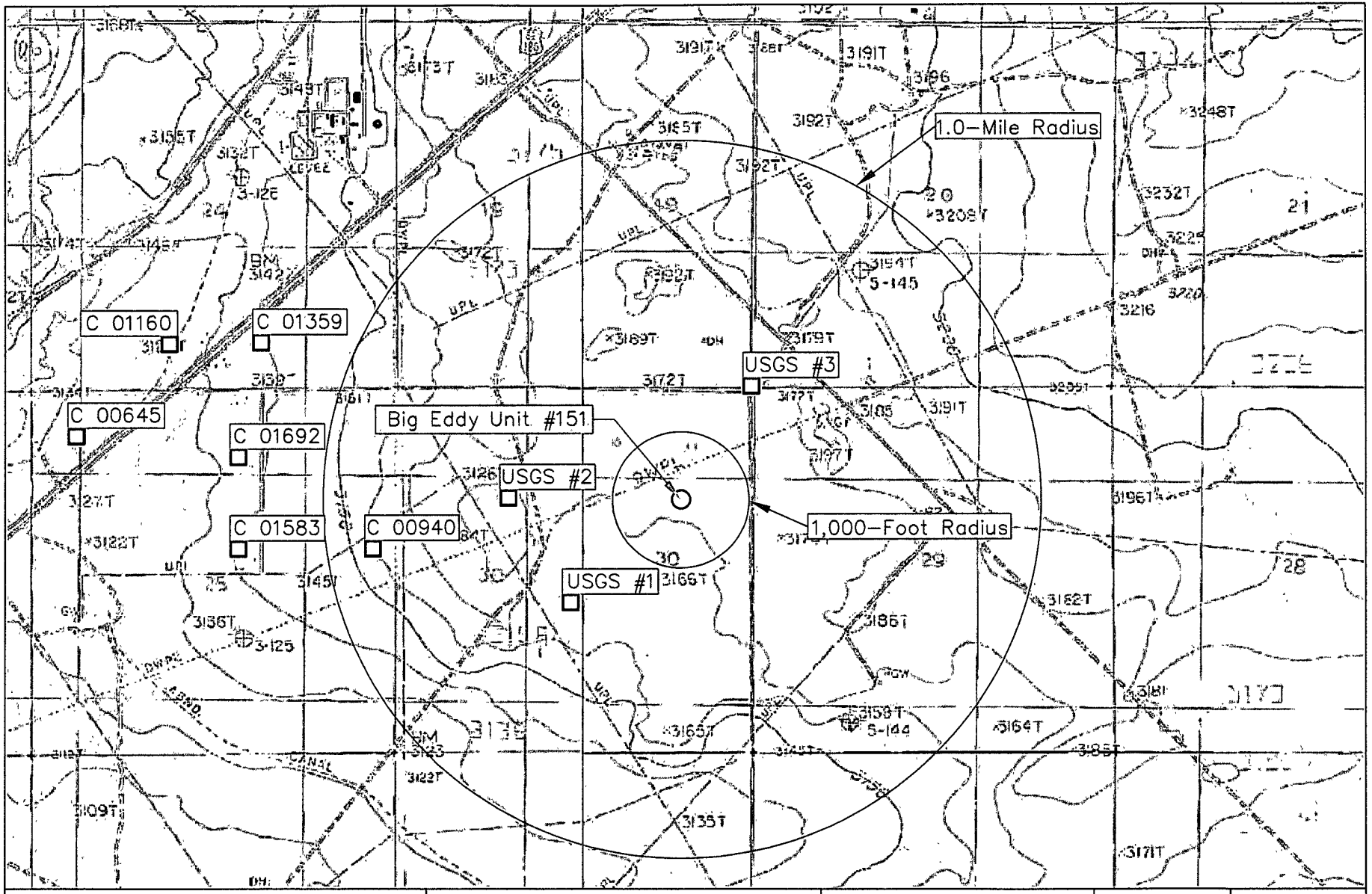


Figure 2 Site Location Map BEPCO Big Eddy Unit #151	Eddy County, New Mexico SE 1/4 of the NE 1/4, Sec. 30, T21S, R28E N 32° 27' 14.30" W 104° 07' 14.70" Elevation: 3,173 feet amsl	DWG By: D Dominguez November 2008 0 2,000 4,000 Feet	REVISED: SHEET 1 of 1

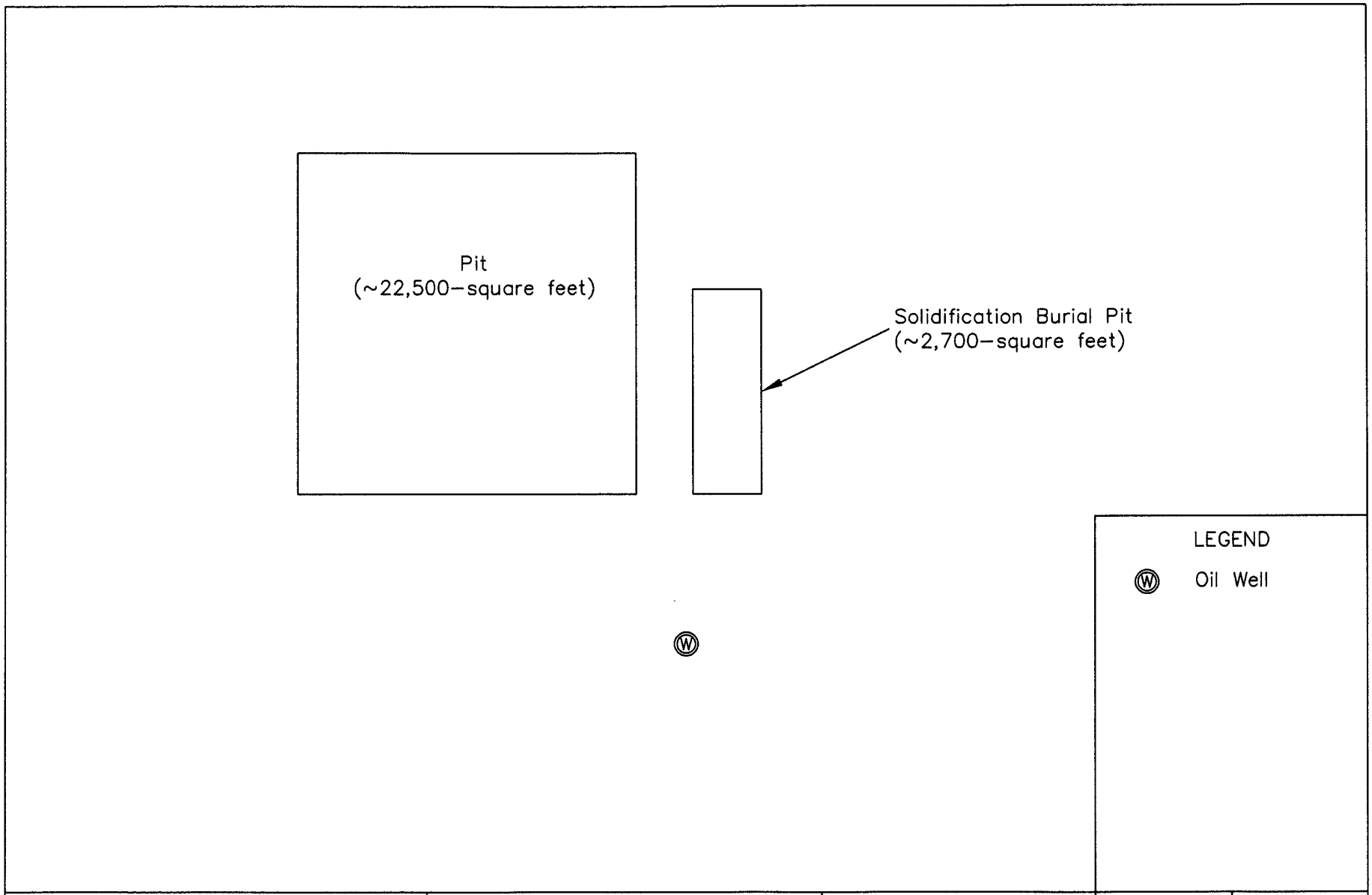


Figure 3 Site Map BEPCO Big Eddy Unit #151	Eddy County, New Mexico SE 1/4 of the NE 1/4, Sec. 30, T21S, R28E N 32° 27' 14.30" W 104° 07' 14.70" Elevation: 3,173 feet amsl	DWG By: D Dominguez November 2008	REVISED: SHEET 1 of 1	

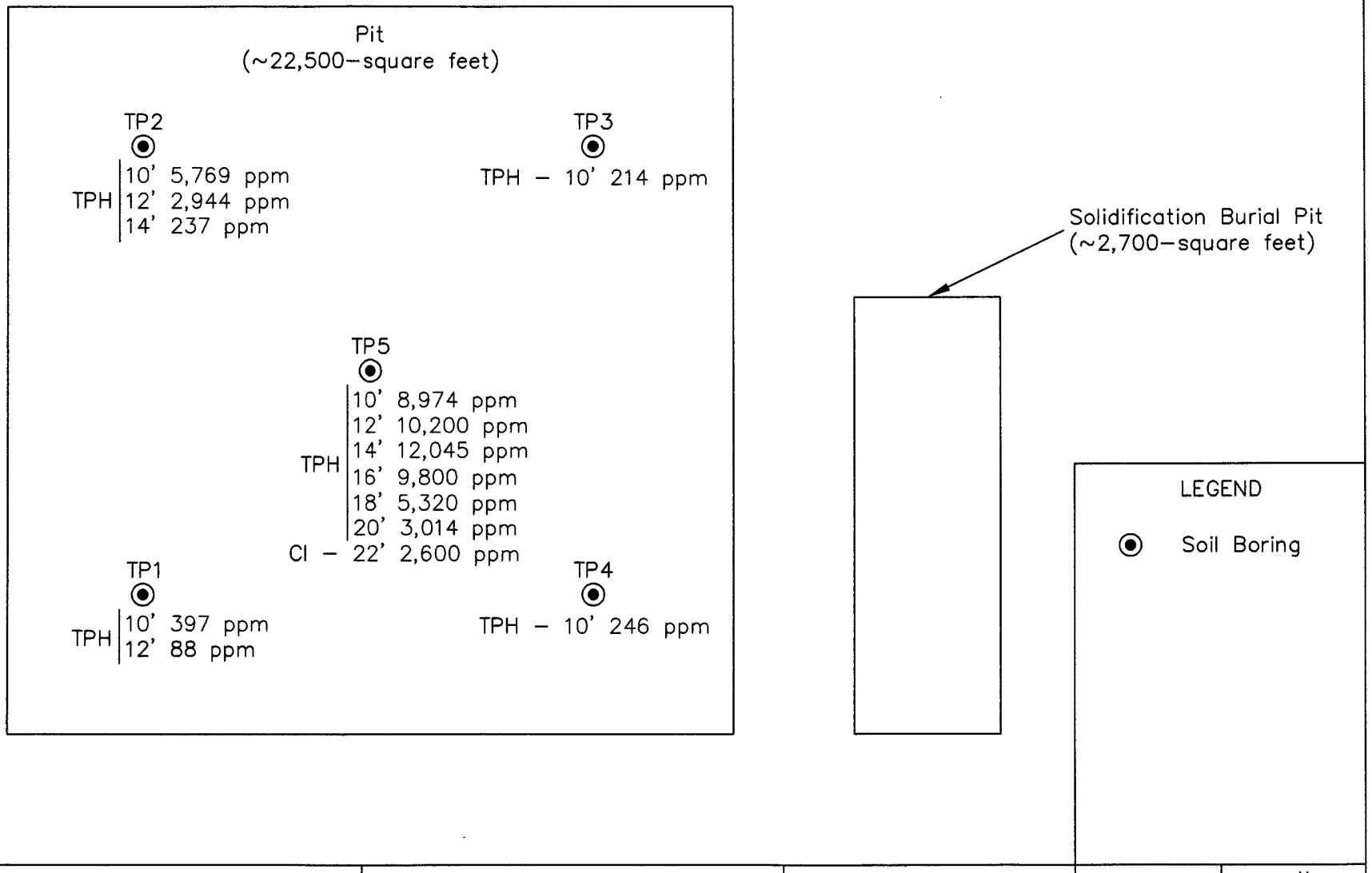


Figure 4 Soil Boring Map – 12/21/07 BEPCO Big Eddy Unit #151	Eddy County, New Mexico SE 1/4 of the NE 1/4, Sec. 30, T21S, R28E N 32° 27' 14.30" W 104° 07' 14.70" Elevation: 3,173 feet amsl	DWG By: D Dominguez November 2008 0 30 60 Feet	REVISED: SHEET 1 of 1 N

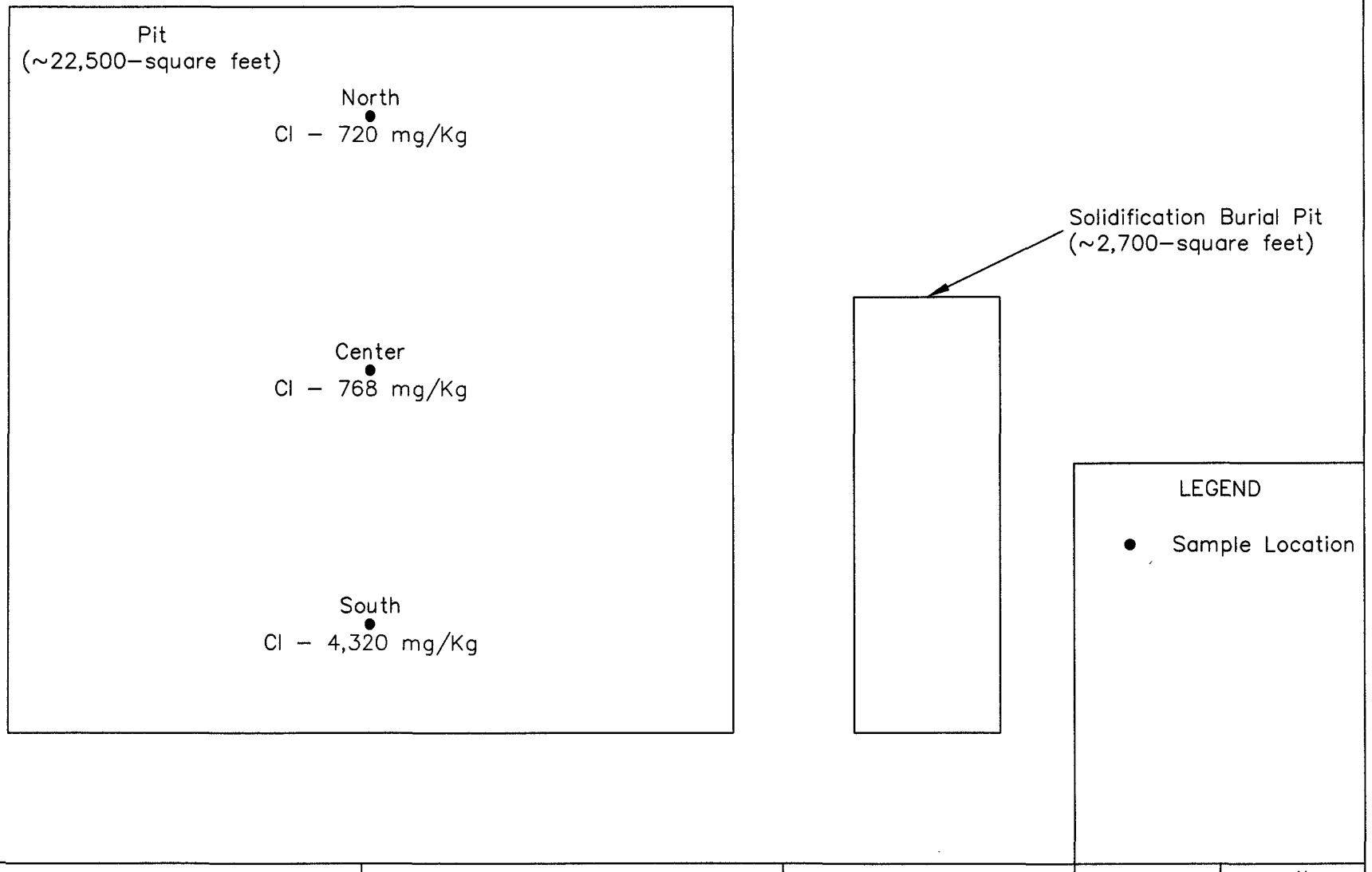


Figure 5 Sample Map BEPCO Big Eddy Unit #151	Eddy County, New Mexico SE 1/4 of the NE 1/4, Sec. 30, T21S, R28E N 32° 27' 14.30" W 104° 07' 14.70" Elevation: 3,173 feet amsl	DWG By: D Dominguez November 2008 0 30 60 Feet	REVISED: SHEET 1 of 1	N

TABLES

TABLE 1

Well Data

Bass Enterprises Production Company - Big Eddy Unit #151 (API #30-015-33157)

Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Depth to Water (ft bgs)
USGS #1				21S	28E	30 4 1 1			10-Dec-92	3,165	16.5
USGS #2				21S	28E	30 1 4 1			20-Jul-95	3,180	94.51
USGS #3				21S	28E	20 3 3 3			22-Jan-96	3,179	17.7
C 01160	3	G.G. ISON	DOM	21S	27E	24 3 4	N32° 27' 36.66"	W104° 08' 42.56"	15-Nov-62	3,124	17
C 01359	3	WILLIAM F. CRABB	DOM	21S	27E	24 4 3	N32° 27' 36.81"	W104° 08' 26.93"	20-Feb-67	3,139	21
C 00645	3	JOSEPH PRICE FITZGERALD	PRO	21S	27E	25 1 1	N32° 27' 23.41"	W104° 08' 58.27"	31-Mar-55	3,128	100
C 00940	3	FRANK L. NEAL	DOM	21S	27E	25 2 4 4	N32° 27' 7.35"	W104° 08' 7.68"	12-Sep-61	3,160	20
C 01583	3	IVAN HEARD	DOM	21S	27E	25 2 3 3	N32° 27' 7.28"	W104° 08' 30.97"	29-May-75	3,140	80
C 01692	3	J.T. MOORE	DOM	21S	27E	25 2 1 3	N32° 27' 20.44"	W104° 08' 30.88"	22-Jul-76	3,138	178

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1) and USGS Database

[A] = In acre feet per annum

[B] = Elevation interpolated from USGS topographical map based on referenced location.

DOM = 72-12-1 Domestic one household

PRO = 72-12-1 Prospecting or development of natural resource

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest

Shaded area indicates wells not shown in Figure 2

TABLE 2

Summary of Excavation Soil Sample Laboratory Analytical Results

BEPCO - Big Eddy Unit #151 (API #30-015-33157)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	Field PID Analyses (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
Center	15'	In situ	30-Oct-08	--	--	--	--	--	--	--	--	--	--	**768**
South	15'	In situ	30-Oct-08	--	--	--	--	--	--	--	--	--	--	**4,320**
North	15'	In situ	30-Oct-08	--	--	--	--	--	--	--	--	--	--	**720**
NMOCD Remedial Thresholds				100		10				50			5,000	250 [1]

Bolded values are in excess of NMOCD Remediation Threshold Goals

BH = Bottom Hole

SW = Sidewall; N= North side, S= South side, W= West side and E= East side

[1] *= Chloride residuals may not be capable of impacting local groundwater above NMWQCC Groundwater Standard of 250 mg/Kg*

TABLE 3

Summary of Soil Boring Laboratory Analytical Results

BEPCO - Big Eddy Unit #151 (API #30-015-33157)

Sample I.D.	Depth (feet)	Soil Status	Sample Date	PID Field Analysis (ppm)	Field Chloride Analyses (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (p/m) (mg/Kg)	Xylenes (o) (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges (C6-C12) (mg/Kg)	Carbon Ranges (C12-C28) (mg/Kg)	Carbon Ranges (C28-C35) (mg/Kg)	Total Hydrocarbons (C6-C35) (mg/Kg)	Chloride (mg/Kg)
TP1	10	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	397	--
TP1	12	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	88	--
TP2	10	Excavated	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	5,769	--
TP2	12	Excavated	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	2,944	--
TP2	14	Excavated	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	237	--
TP3	10	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	214	--
TP4	10	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	246	--
TP5	10	Excavated	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	8,974	--
TP5	12	Excavated	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	10,200	--
TP5	14	Excavated	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	12,045	--
TP5	16	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	9,800	--
TP5	18	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	5,320	--
TP5	20	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	3,014	--
TP5	22	In situ	21-Dec-07	--	--	--	--	--	--	--	--	--	--	--	--	2,600
RRC Remedial Thresholds				100		10					50				1,000	250 [1]

-- = Not Analyzed; ND = Non-detectable

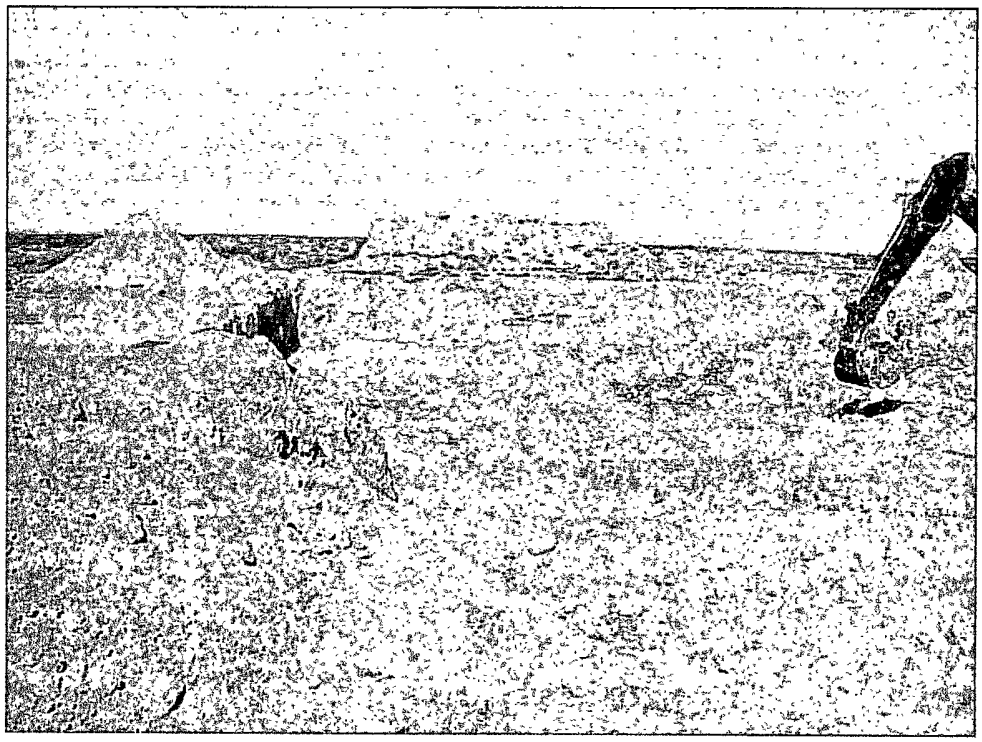
[J] = Detected, but below the Reporting Limit Therefore, result is an estimated concentration (CPL J-Flag)

[1] = Chloride residuals may not be capable of impacting local groundwater above NMWQCC Groundwater Standard of 250 mg/Kg

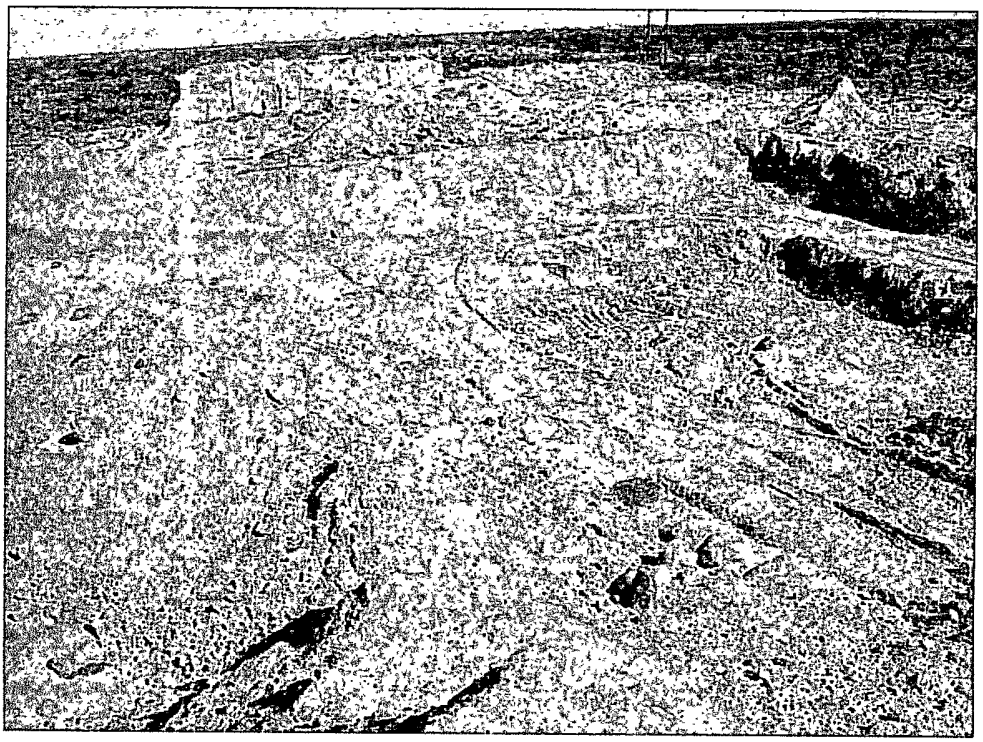
ATTACHMENTS

ATTACHMENT I

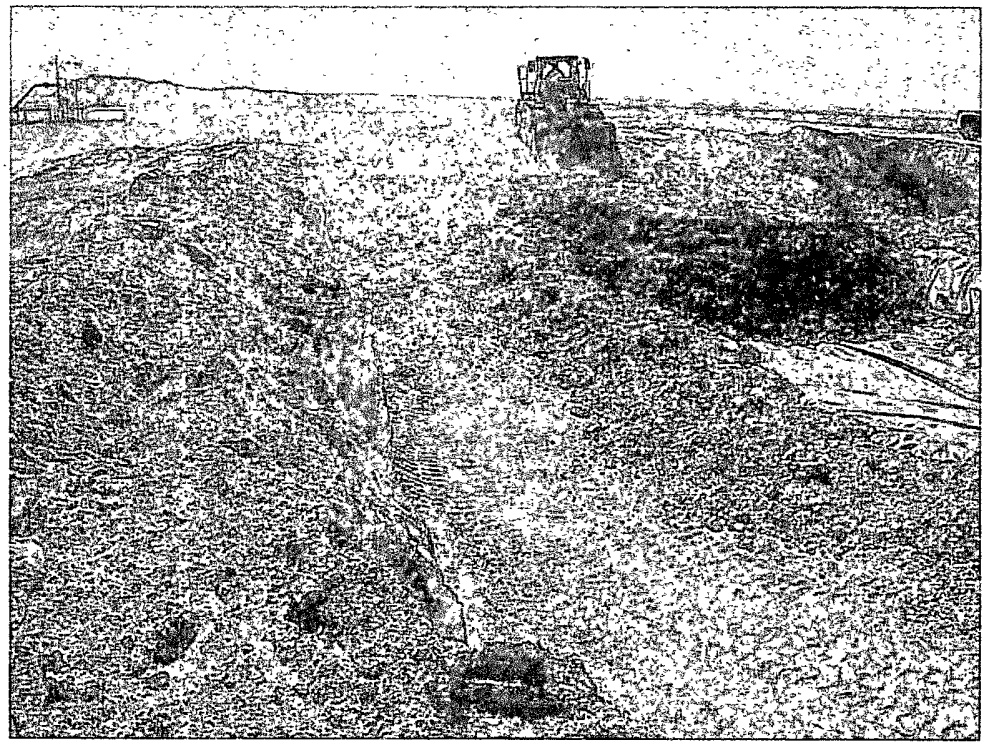
SITE PHOTOGRAPHS



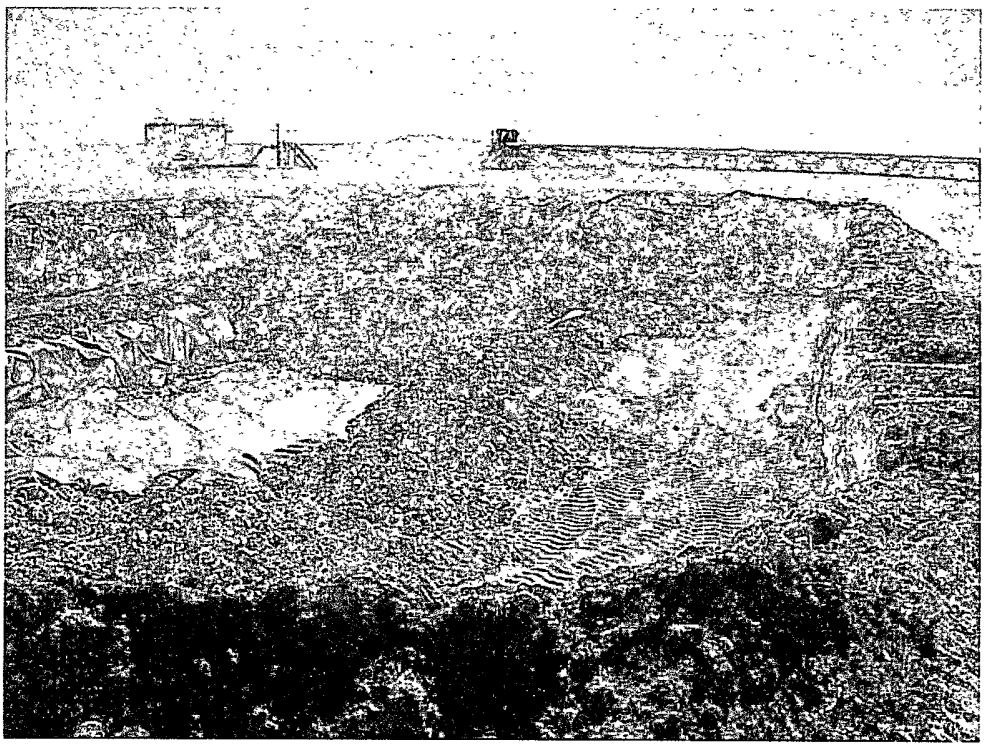
Photograph No. 1 – Looking north at excavation and stockpiled caliche



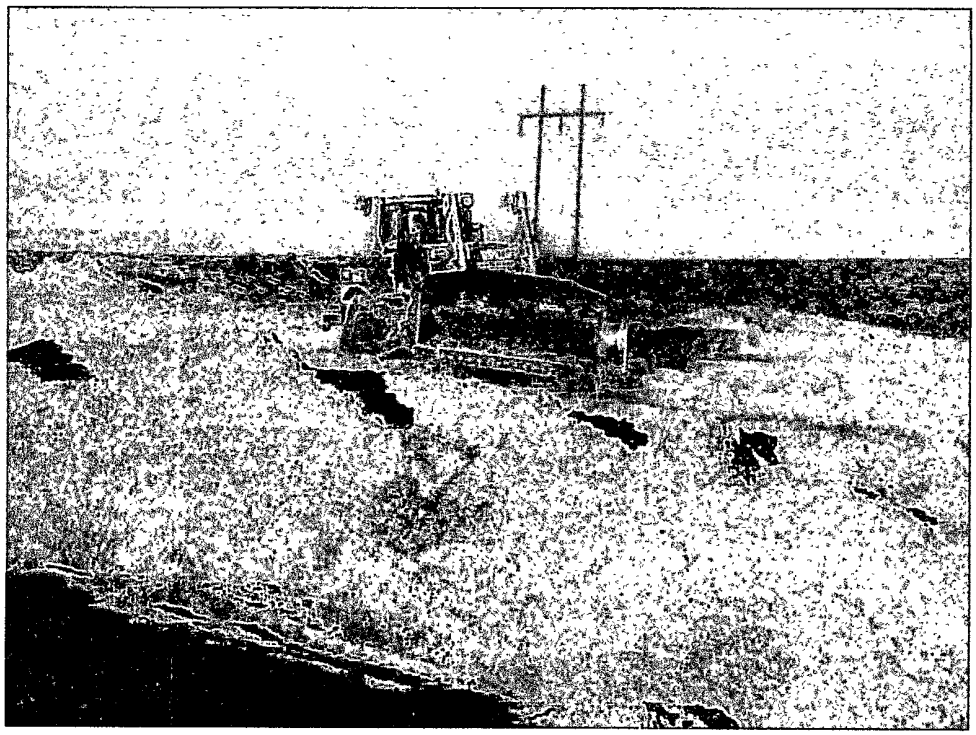
Photograph No. 2 – Looking northeasterly at finished excavation



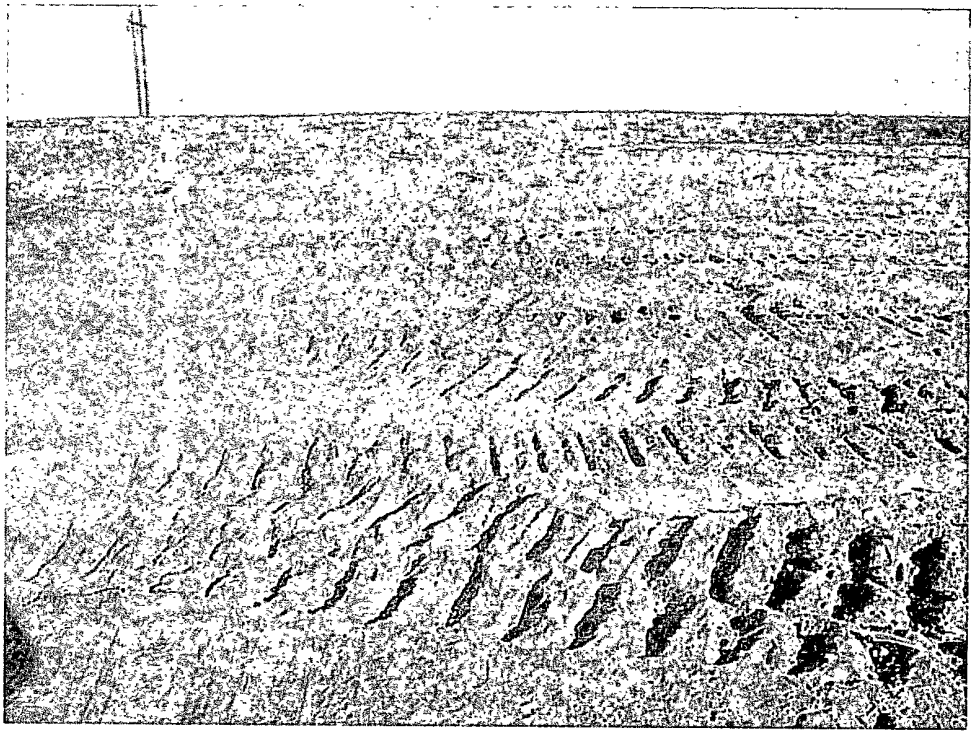
Photograph No. 3 - Looking south at backfilling of polyethylene liner



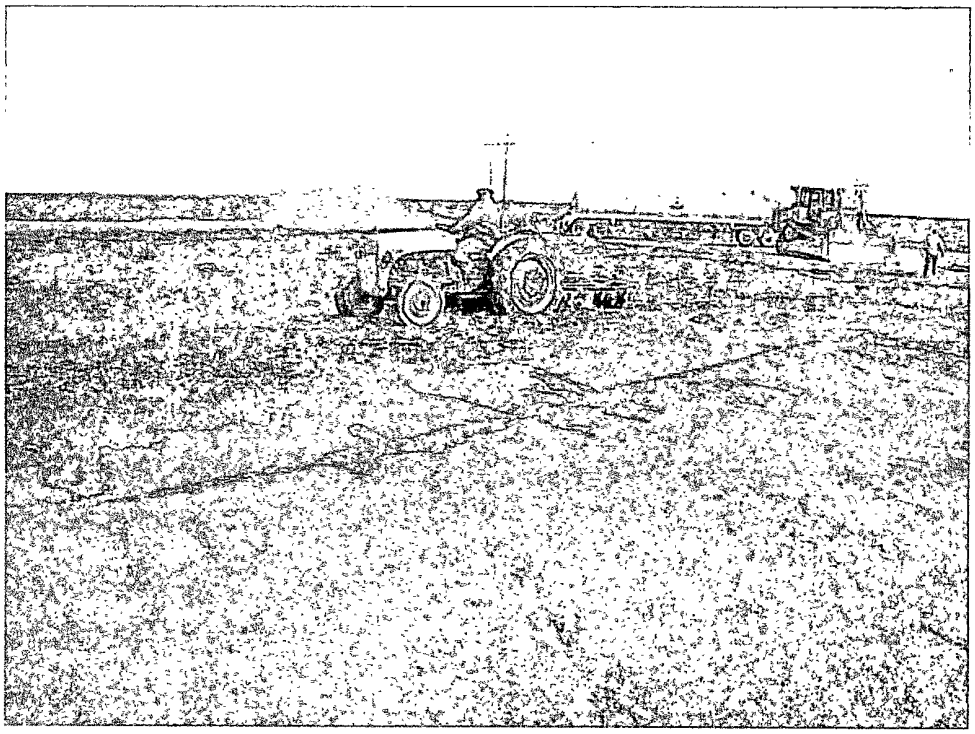
Photograph No. 4 – Looking south at backfilling of polyethylene liner



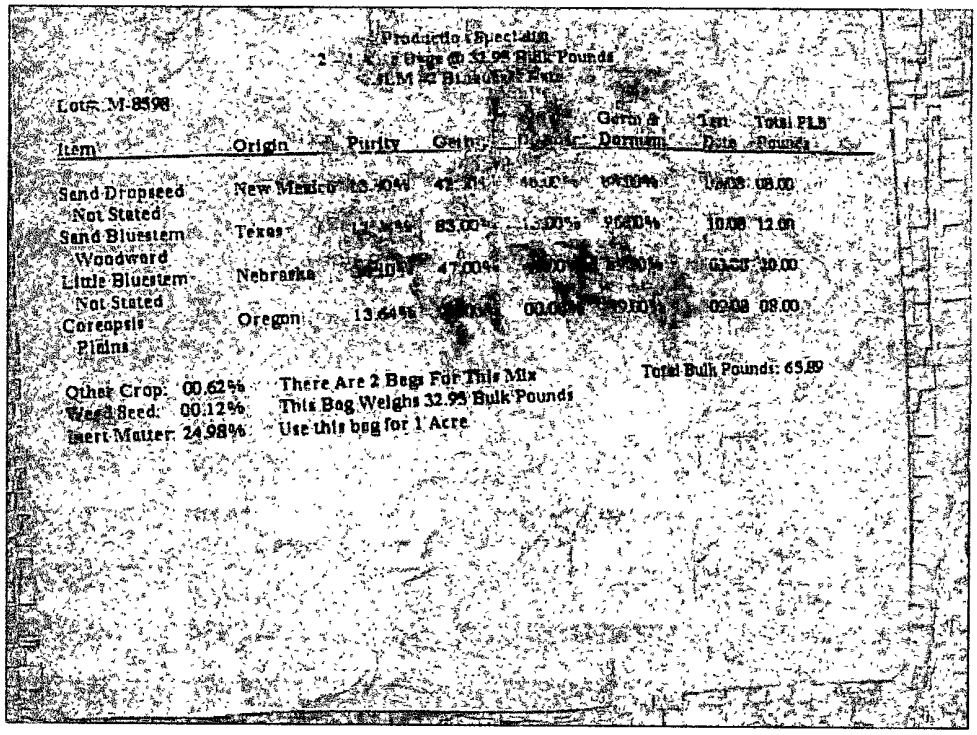
Photograph No. 5 – Looking north at placement of top soil backfill



Photograph No. 6 – Looking north at contoured top soil backfill



Photograph No. 7 – Looking north at tractor with disc and watering of top soil



Photograph No. 8 – BLM Mix #2 Grass Seed Bag Label

ATTACHMENT II
LABORATORY ANALYTICAL RESULTS
AND
CHAIN-OF-CUSTODY FORMS

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
THE REPUBLIC
ATTN: ERIC GARCIA
1513 W. ASPEN
LOVINGTON, NM 88260
FAX TO: (575) 396-7782

Receiving Date: 10/30/08
Reporting Date: 10/30/08
Project Owner: NOT GIVEN Bass Enterprises
Project Name: NOT GIVEN Big Eddy 151
Project Location: NOT GIVEN Big Eddy 151

Analysis Date: 10/30/08
Sampling Date: NOT GIVEN 10:30:08
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: AB

LAB NO.	SAMPLE ID	Cl⁻ (mg/kg)
H16220-1	WHITE	<16
H16220-2	RED	1,870
H16220-3	CENTER	768
H16220-4	SOUTH	4,320
H16220-5	NORTH	720
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

10-31-08
Date

H16220 REPUBLIC

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
THE REPUBLIC
ATTN: ERIC GARCIA
1513 W. ASPEN
LOVINGTON, NM 88260
FAX TO: (575) 396-7782

Receiving Date: 10/30/08
Reporting Date: 11/03/08
Project Owner: BEPCO
Project Name: DRILLING PIT
Project Location: BIG EDDY 151

Analysis Date: 10/30/08
Sampling Date: 10/30/08
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: AB

LAB NO.	SAMPLE ID	Cl⁻ (mg/kg)
H16220-3	CENTER	768
H16220-4	SOUTH	4,320
H16220-5	NORTH	720
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClˉB

Note: Analyses performed on 1:4 w:v aqueous extracts.
Revised report.

Chemist

11-3-08
Date

H16220 REPUBLIC

CARDINAL LABORATORIES

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

Page____ of ____

Company Name:	The Republic	**BILL TO**	
Project Manager:	Eric	P.O. #:	
Address:	1513 W. Aspen	Company:	
City:	Lovington State: NM Zip: 88260	Attn:	
Phone #:	575-631-0130 Fax #:	Address:	
Project #:	Project Owner: BASS Enterprs	City:	
Project Name:	Big Eddy 151	State: Zip:	
Project Location:	Eddy	Phone #:	
Sampler Name:		Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	Cl-
H16220-1	White C	G	1			✓									X
-2	Red Glass Quide	G	1			✓									X
-3	Center Same	G	1			✓									X
-4	South Shot	G	1			✓									X
-5	North Same	G	1			✓									X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice. And all costs of collection, including attorney's fees.

Sampler Relinquished:	Date:	Received By:		Phone Result: ☐	No Add'l Phone #:
	Time:			Fax Result: ☐	No Add'l Fax #:
Relinquished By:	Date: 10-30-08	Received By:		REMARKS: RUSH! Called + left message on machine w/ results. 10/30/08 5:00p	
	Time: 10:00				
Delivered By: (Circle One)	Temp.	Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No	CHECKED BY: (Initials)		
Sampler - UPS - Bus - Other:					

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

ATTACHMENT III
INFORMATIONAL NMOCD FORM C-144

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-144
July 21, 2008

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

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

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

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

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

1.
Operator: _Bass Enterprises Production Company__________ OGRID #:__________
Address: _P.O. Box 2760 Midland Tx 79702__________
Facility or well name: _Big Eddy Unit #151__________
API Number: _30-015-33157__________ OCD Permit Number: __________
U/L or Qtr/Qtr _H__________ Section _30__________ Township _21S__________ Range _28E__________ County: _Eddy__________
Center of Proposed Design: Latitude _32° 27' 14.299"__________ Longitude _104° 07' 14.7"__________ 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 _12_____mil ☐ LLDPE ☒ HDPE ☐ PVC ☐ Other __________
☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other __________ Volume: _5,300___bbl Dimensions: L_150'_ x W_150'_ x D_10'__

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.

Accepted for record
NMOCD
JAN 08 2009

Fin. DC/osure Date 11/4/08

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

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

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

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

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

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

19.
Operator Application Certification:

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

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

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

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

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

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

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

☒ **Closure Completion Date: 11-14-2008**

22.
Closure Method:

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

☐ If different from approved plan, please explain.

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

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

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

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

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

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

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

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

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

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

25.
Operator Closure Certification:

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

Name (Print): Dean Clemmer Title: Area Production Supervisor

Signature: [signature] Date: 1/5/08

e-mail address: rdclemmer@basspet.com Telephone: 575-887-7329

JAN 08 2009

Accepted for record
NMOCD

The Republic Backhoe Service
1513 W. Aspen
Lovington, NM 88260
575-396-0466
Fax Number 575-396-7782

FAX

To: Mike Brathee

Company:

From: Eric GARCIA

Fax Number: 575.396.7782 **Phone Number** 575.631.0131

Pages to follow: 3

RE: **Date:** 11.03.08

Comments:

The following are analytical results of sampling performed on 10.30.08. These are illustrated by N, center, S. The others TP1, TP2, TP3, TP4 TP5, were conducted by EIE on an unknown date.

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
THE REPUBLIC
ATTN: ERIC GARCIA
1513 W. ASPEN
LOVINGTON, NM 88260
FAX TO: (575) 396-7782

Receiving Date: 10/30/08
Reporting Date: 11/03/08
Project Owner: BEPCO
Project Name: DRILLING PIT
Project Location: BIG EDDY 151

Analysis Date: 10/30/08
Sampling Date: 10/30/08
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: AB

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H16220-3	CENTER	768
H16220-4	SOUTH	4,320
H16220-5	NORTH	720
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.
Revised report

Chemist

11-3-08
Date

H16220 REPUBLIC

Bratcher, Mike, EMNRD

From: Jerry Brian [jerry.r.brian@gmail.com]
Sent: Tuesday, September 30, 2008 6:29 AM
To: Bratcher, Mike, EMNRD
Subject: BEPCO-Big Eddy # 151

Hi Mike,

This is to confirm that on the 9/26/08 I obtained permission from you to do the following work on the Big Eddy # 151:

1. Excavate center area of pit (TP 5) to a depth of 16'-18' bgs
2. Remove ramp area material from center of pit to south edge
3. Cap excavated area (TP5 and southward) with a 20 ml liner
4. TP2 area to remain undisturbed (no Action required)
5. Haul all excavated impacted material to CRI Disposal
6. Backfill to grade with soil like material
7. Reseed with acceptable grass mix

Is this correct?

Please advise.

Thanks,
Jerry Brian-Geologist, REM, REPA
Brian Environmental Services, LLC
575-390-6149

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Thursday, October 02, 2008 5:32 PM
To: 'Jerry Brian'
Subject: RE: BEPCO-Big Eddy # 151

Jerry,

This will be an acceptable closure method for the pit at the BEPCO Big Eddy 151 (30-015-33157). Please notify the NMOCD District 2 office 48 hours prior to commencement of closure activities. A closure report will be required to be filed with this office upon satisfactory completion of project.

This approval does not relieve BEPCO (or the operator of record) of liability should this operation fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, this approval does not relieve BEPCO (or the operator of record) of responsibility for compliance with any other federal, state, local laws and/or regulations.

Sincerely,

Mike Bratcher
NMOCD District 2
575-748-1283 Ext.108

From: Jerry Brian [mailto:jerry.r.brian@gmail.com]
Sent: Tuesday, September 30, 2008 6:29 AM
To: Bratcher, Mike, EMNRD
Subject: BEPCO-Big Eddy # 151

Hi Mike,

This is to confirm that on the 9/26/08 I obtained permission from you to do the following work on the Big Eddy # 151:

1. Excavate center area of pit (TP 5) to a depth of 16'-18' bgs
2. Remove ramp area material from center of pit to south edge
3. Cap excavated area (TP5 and southward) with a 20 ml liner
4. TP2 area to remain undisturbed (no Action required)
5. Haul all excavated impacted material to CRI Disposal
6. Backfill to grade with soil like material
7. Reseed with acceptable grass mix

Is this correct?

Please advise.

Thanks,
Jerry Brian-Geologist, REM, REPA
Brian Environmental Services, LLC
575-390-6149

Bratcher, Mike, EMNRD

From: jerry brian [jrbrian@verizon.net]
Sent: Thursday, February 14, 2008 7:00 AM
To: Bratcher, Mike, EMNRD
Cc: Steve Johnson; Kent Adams; Mike Waygood
Subject: Fw: Elke Environmental - BEPCO Big Eddy # 151

Hey Mike,

Hope all is well with you!

Mike I have been unable to connect with you so far on this, but I would like to find a time to discuss this with you so we can plan our next step for the Big Eddy #151 and the Horned Toad 36 - #7, please.

Could you call me at 575-390-6149?

I would appreciate it.

Thanks
----- Original Message -----
From: Price, Wayne, EMNRD
To: Price, Wayne, EMNRD ; jerry brian
Cc: Bratcher, Mike, EMNRD ; Gum, Tim, EMNRD ; Sanchez, Daniel J., EMNRD
Sent: Thursday, February 07, 2008 1:56 PM
Subject: RE: Elke Environmental - BEPCO Big Eddy # 151

Corrected version

From: Price, Wayne, EMNRD
Sent: Thursday, February 07, 2008 1:53 PM
To: 'jerry brian'
Cc: Bratcher, Mike, EMNRD; Gum, Tim, EMNRD; Sanchez, Daniel J., EMNRD
Subject: RE: Elke Environmental - BEPCO Big Eddy # 151

Response: OCD normally ask the operator to delineate until the contamination reaches background or at some agreed upon acceptable level, which the OCD Environmental Bureau generally recommends 250 ppm for chlorides. The final clean-up standard is normally ~~less~~ more than the delineation standard, but in some very special cases may the same or even less. Delineation is used to determine the magnitude of the release and to confirm that groundwater or surface water has not or will not be contaminated in the foreseeable future. By regulation, OCD does not have a chloride soil clean-up standard or guidelines at this time for rule 116 release corrective actions. The clean-up standard in this case is actually a level of remaining material that was discussed and concluded that may be protective of fresh water for the foreseeable future. In this case we discussed 1000 ppm cl. using our best professional judgment. Of course, any level above background approved by OCD does not relieve the operator from future liability. The premise here is, OCD nor does any agency, accept any liability from a risk-based closure when you leave contaminates remaining at the site. It is the operator's responsibility. If the operator does not want the liability then they should remove all of the contamination that they caused. In reality, a Risk-based closure is a transfer of risk from the responsibility party to a non-responsible party. It is OCD's job to make sure the non-responsible party is protected. That is our Job.

Now, let us talk sound science. For example, let's say you excavate a total mass of 1000 lbs of salt out of the contaminated area. Then you mix clean soil with the 1000 lbs of salt and put back in the hole. The bottom line is you haven't accomplished anything. You still have the same salt mass in the hole. OCD's objective is to remove the contamination down to some practical level i.e. source reduction, and allow the operator to perform a risk

based closure. When you perform modeling you will see that the mass of salt is actually the determining factor, not necessarily the concentration in ppm. For example, a small area with high chlorides (ppm) may be more protective than a very large area with less chlorides (ppm). That's the reason we have different chloride standards for different size landfarms, etc.

Now to address your statement about the source of the contamination, we agree it was the drilling pit. We also agree you did a very good job in determining that groundwater directly under the site was not impacted at this time. We do have a problem in your assessment that the two zones cannot ever communicate, we have extensive experience that surface contamination over a period of time can contaminate confined aquifers. Unless you are willing to leave monitor wells on site for many years then we think source reduction is the only viable option in this case, especially since groundwater is shallow. The other issue that probably was not addressed is how you are going to prevent infiltration from entering the contaminated zone and leaching down dip and eventually into the Pecos River or a water course that leads to the Pecos. You would have to perform an extensive geological search to determine where the underlying impervious zone outcrops. I would venture to say your investigation cost may exceed the disposal cost.

I hope this gives you some insight to our thought process, as we pride ourselves on using sound science, best professional judgment and common sense. Every site is different and the district office does not have time or staff to evaluate risk-based closures for every site. You can expect and should expect different solutions for different sites. OCD Environmental Bureau and the District staff attempt to normalize these processes but it simply is not possible due to all of the variables.

The final approval in this particular case will most likely be the district office, as groundwater was not impacted.

If you have any questions please do not hesitate to call or write.

Good Luck!

From: jerry brian [mailto:jrbrian@verizon.net]
Sent: Monday, February 04, 2008 9:07 AM
To: Price, Wayne, EMNRD
Cc: Bratcher, Mike, EMNRD
Subject: Elke Environmental - BEPCO Big Eddy # 151

Hi Wayne,

Thanks for taking my call concerning the Big Eddy # 151 on the 2/1/08.

Wayne I am confused about this blending issue and need some clarification, please!

First, some background about the site, please.

On the 1/31/08, Mr. Waygood (Bass Enterprises) and I met with Mike Bratcher and Tim Gum concerning the Big Eddy # 151 potential Groundwater impact.

The site investigation that I conducted provided the scientific data for us all to agree that the source of the water encountered in the pit area was from a breeched pit liner and that there was not any communication with the groundwater encountered at 50' below ground surface (bgs). The lack of communication with the perched pit water in the pit area was due to the multiple impervious layers underlying the pit. This prevents anything from

going down as well as anything from coming up. As a result, a threat to groundwater is non-existent. These impervious zones also underlie the NMOCD approved stabilization trench burial of the former pit contents. The pit contents are much higher in chlorides than what is currently left remaining in the pit. This burial trench is located between the pit area and the MW that we drilled East of the pit. This provides additional protection for the groundwater in the event that the liner which is encapsulating the pit contents might be breeched for some reason in the future.

In the conversation that you and I had on the 2/1/08, it seem that you were satisfied that the liner had been breached and that a groundwater impact had not occurred. As a result, you indicated to me that it was acceptable to excavate the impacted material in the pit to a level of 1000 ppm chlorides, but that blending was not an acceptable remedial practice.

Wayne I am confused, because backfilling of blended material with chloride levels below an agreed upon MCL is currently an NMOCD approved method in Lea and Eddy Counties that we have been using for several years. In fact, we just closed some sites last week in which we were allowed to excavate. blend, and backfill with blended material that tested below the agreed upon MCL.

My proposed Risk Based closure of this site to Mr. Bratcher and Mr. Gum on the 1/31/08 was based upon this established history with NMOCD in Lea and Eddy counties.

Is there a Rule that you are aware of that we (NMOCD and Elke) are not aware of here in Lea and Eddy counties? If so, have we then been in violation all this time?

Your advise would be greatly appreciated.

Sincerely,

Jerry R. Brian - REM, REPA
Geologist
575-390-6149

BEPCO, L.P.
Big Eddy Unit #151

Site Investigation Report
Located in:

Unit Letter H, Sec.30,
Township 21S, Range 28E, N.M.P.M.
Latitude: N 32.453972 Longitude: W 104.120750
Eddy County, New Mexico

January 22, 2008

Prepared For:
Bass Enterprises Production Company
P.O. Box 2760
Midland, TX 79702-2760

By:
Elke Environmental, Inc.
3506 West County Rd.
Hobbs, NM 88241
(575) 738-0138

ELKE ENVIRONMENTAL, INC.

TABLE OF CONTENTS

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

I. **Company Contacts**

Mike Waygood	Bass Enterprises	505-887-7329
Jerry Brian	Elke Environmental	505-390-6149

II. **Background**

Elke Environmental (Hobbs office) was engaged in 9/07 to identify a curative solution at a stalled NMOCD approved solidification/deep-bury site, known as the Big Eddy #151 Lease, API # 30-015-33157, located in UL H, Sec. 30, T21S-R28E in Eddy County, NM (see Figures 1 and 2). Resuming remedial operations and conducting an investigation of a potential groundwater impact at the site were the objectives.

III. **Site Physiography**

The site is located in the high desert area of southeastern New Mexico. The area is within the Pecos River Valley section of the Great Plains Province, and has been described in the literature as the Los Medanos (which translates as "the dunes"). The land surface is hummocky, composed of sand ridges and dune complexes with no well defined surface water drainage patterns.

The area is mostly a flat to gently sloping plain covered by alluvium from the surrounding higher areas with local outcrops of Permian, Triassic, and Cretaceous rocks forming low hills and ridges. The Pecos River, the main drainage through the basin, enters from the north and exits to the southeast along the Reeves-Ward County line in Texas.

IV. **Geologic Setting**

The site lies within the Northeastern part of the Delaware Basin in an area of evaporate deposition during Ochoan age.

Throughout the Paleozoic Era, the area now called the Delaware Basin was an embayment covered by a shallow sea. During the Early Permian Epoch about 10,000 feet of sediments accumulated, represented by sand, shale, and limestone. In middle Guadalupian time of the Permian Period, a reef (the Capitan Limestone) began forming the Delaware Basin Margins. In the Delaware Basin, sandstone and shale beds, also of Guadalupian age, were covered by evaporites and limestone (Castile Formation) of Ochoan age, and these were covered by evaporates interbedded with limestone, dolomite, sand, and shale (Salado and Rustler Formations), also of Ochoan age.

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

A transition from the marine environment of the Permian Period to the humid lacustrine (lake), fluvial (stream), and deltaic environments of the Late Triassic Epoch initiated Dockum Group sedimentation.

During the Jurassic Period, the area was raised above sea level and was eroded. A slow advancement of the sea from the southeast during the Cretaceous Period into the basin resulting in thick depositional layers of sand, shale, and limestone strata. The Cretaceous rocks then underwent extensive erosion. The sea exhibited continuous transgressions and regressions in Late Cretaceous to Late Tertiary time. The Delaware Basin emerged in Late Tertiary time. It then tilted somewhat to the east, and thick fluvial sediments were deposited. In late Cenozoic time this tilting caused block faulting and buckling. As a result, a basin and range type was formed along the western margins of the Delaware Basin. A transition to a more arid climate in Quaternary time resulted in the deposition of windblown sand. The ongoing depositional processes in late Tertiary through Quaternary time have caused an accumulation of silts, sands, and gravels (Cenozoic alluvium) from surrounding high areas.

V. Groundwater

Based on the Chevron-Texaco ground water elevation contour map, depth to ground water is projected to be < 50' below ground surface (bgs) (see Tab F).

VI. Work Performed

On the 10/5/06 Elke Environmental obtained a NMOCD approved C-144 from Tim Gum to conduct an on-site solidification/deep-bury for the Big Eddy # 151 (see Tab G). Immediate notification was to be given in the event any water seepage was encountered.

In 2/07, Elke Environmental began the solidification/deep-bury process at the BEPCO Big Eddy # 151.

After the solidification process was completed, a vertical delineation of the excavated pit bottom was conducted.

The sampling event consisted of five sampling points at 10' bgs, one in each quadrant and one in the center inside the excavated pit area (see Tab C). Analytical results for chlorides at TP #1, #2, #3, #4, & #5 were 397 ppm, 5769 ppm, 214 ppm, 246 ppm, and 8974 ppm respectively (see Tab C, Table, or Tab J).

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

Sample points TP #1, #2, & # 5 exceeded the accepted MCL for chlorides of 250 ppm.

Chloride analysis at 12' bgs indicated concentrations at sample points TP #1, #2, & # 5 were 88 ppm, 2944 ppm, and 10200 ppm, respectively (see Tab C, Table, or Tab J). Sample points TP #2, & # 5 exceeded the accepted MCL for chlorides of 250 ppm.

Chloride analysis at 14' bgs indicated concentrations at sample points TP #2, & # 5 were 237 ppm, and 12,045 ppm, respectively (see Tab C, Table, or Tab J). Sample point TP # 5 exceeded the accepted MCL for chlorides of 250 ppm.

Chloride analysis at 16', 18', 20' bgs indicated concentrations at sample points TP # 5 were 9,800 ppm, and 5,320 ppm, and 3,014 ppm, respectively (see Tab C, Table, or Tab J).

Sample point TP # 5 at 22' bgs encountered formation water and a Field Chloride Test was run. An official laboratory confirmation analysis was not run at this time. Chloride analysis at 22' bgs of the water sample was approximately 2600 ppm (see Tab C, Table, or Tab J).

DATE	ID		Cl
2/28/07	TP#1	10' BGS	397
2/28/07	TP#1	12' BGS	88
2/28/07	TP#2	10' BGS	5769
2/28/07	TP#2	12' BGS	2944
2/28/07	TP#2	14' BGS	237
2/28/07	TP#3	10' BGS	214
2/28/07	TP#4	10' BGS	246
2/28/07	TP#5	10' BGS	8974
2/28/07	TP#5	12' BGS	10200
2/28/07	TP#5	14' BGS	12045
2/28/07	TP#5	16' BGS	9800
2/28/07	TP#5	18' BGS	5320
2/28/07	TP#5	20' BGS	3014
2/28/07*	TP#5	22' BGS	2600*
• Field Chloride Test for Water			

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

Notification of the incident was reported to NMOCD immediately on the 2/28/07 (see Tab H).

On the 9/26/07, Elke Environmental received a verbal approval from Mike Bratcher-NMOCD (Artesia) allowing us to begin operations.

On the 9/27/07, we received an email from Mike Bratcher – NMOCD (Artesia) as per NMOCD – Santa Fe (Wayne Price) requiring us to halt all operations.

On the 10/16/07, a background soil sample was taken (BG #1 0-6" bgs) at Bore Hole #1, and a soil sample taken at BH #1 20' bgs and tested for chlorides (see Tab D, Table, or Tab J).

Analytical results for chlorides at BG #1 0-6" bgs, & BH #1 20' bgs were 160 ppm, and 16 ppm respectively (see Tab D, Table, or Tab J).

On the 10/24/07, soil samples Pit #1-Center 18'bgs, and Pit #1-Center 18' bgs(w) were taken in the pit area (see Tab D, Table, or Tab J).

Analytical results for chlorides at Pit #1-Center 18'bgs, & Pit #1-Center 18' bgs(w) were 416 ppm, and 15,200 ppm respectively (see Tab D, Table, or Tab J).

DATE	ID		Cl
10/16/07	BG #1	0-6" BGS	160
10/16/07	BH #1	20' BGS	16
10/24/07	Pit #2-CENTER	18' BGS	416
10/24/07	Pit #1-CENTER	18' BGS (W)	15,200

On the 10/16/07, Eco/Enviro Drilling arrived on location to drill and install a temporary monitor well. Soil lithology, depth to groundwater, and water quality were determined (see Tab D, Table, or Tab J).

One bore hole (BH) was drilled up- gradient to a depth of 65' bgs and split spoon sampling conducted every 5' bgs. A total of 13 discrete grab samples were retrieved. A Temporary Monitoring Well (TMW) was completed in BH #1.

On the 10/18/07, the well was developed and a water sample taken at 55'bgs (see Tab D, Table, or Tab J).

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

On the 10/26/07, a water sample (Pit Center-18' bgs) was taken from the pit area (see Tab D, Table, or Tab J).

BIG EDDY # 151 - TOTAL IONS COMPARISON (ppm)

	DATE	Na	Ca	Mg	K	Cl^-	SO_4
BH #1 -55'bgs	10/18/07	40	619	72.6	4.03	64	1620
Pit Center - 18' bgs	10/26/07	22,029	1497	857	2500	37,400	5,380

	DATE	CO_3	HCO_3	T. Alkal.	Conduct.	pH	TDS
BH #1 -55'bgs	10/18/07	0	195	160	2690	7.29	2649
Pit Center - 18' bgs	10/26/07	0	92.7	76	95,200	7.52	71,052

All samples were properly packaged, preserved, and transported under Chain-of-Custody (see Tab K) to Cardinal Laboratories of Hobbs, New Mexico for analysis. Selected soil and water samples were analyzed for Chlorides (EPA Method: 4500-Cl^-B), and Total Ions (EPA Methods: SM3500-Ca-D; 3500-Mg E; SM4500-Cl-B).

VII. Conclusions

Further Site Investigation was necessary to resolve two issues at the Big Eddy # 151, namely:

1. "Protected" vs. "Non-Protected" waters
2. Groundwater impact vs. Perched Water layer

It is our belief that the fluid encountered in the excavated pit area was a perched water layer formed by a compromised liner leaking drilling fluids, not a groundwater impact.

Our investigative approach was to:

1. Determine background surface soil chloride concentrations
2. Correlate soil chloride concentrations at corresponding depths between BH #1 and the excavated depth in the pit area
3. Determine soil lithology
4. Locate the saturated zone
5. Establish the static water level
6. Establish and compare groundwater quality vs. pit water quality

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

To accomplish these objectives an exploratory trench was dug in the center of the pit, and a borehole was drilled up-gradient until the saturated zone was encountered. Soil and water samples were taken in the pit area and from BH #1.

Analytical results from soil sample BG #1 0-6" bgs (from BH#1) indicate that the natural surface background concentration for chlorides is 160 ppm.

Analytical results from soil samples Pit #2-Center- 18' bgs, and BG #1-20' bgs for chlorides were 416 ppm, and 16 ppm respectively. The chloride concentration in the pit area exceeds the chloride concentration at a correlative depth bgs up-gradient by 400 ppm, or approximately 2,500%. This is attributed to a compromised leaking liner.

Excavation in the pit area revealed a series of fractures from approximately 13' - 18' bgs in the dry gypsum (see Tab E, Tab I). These fractures were wet, and were the downward migratory pathway for the drilling fluids until the impervious zones were encountered.

Drilling of BH #1 from surface to 50' bgs began on the 10/16/07. On the first day of drilling, moisture was encountered from 2' bgs – 9' bgs. **The subsurface was dry from 10'bgs – 50' bgs (see Tab E, Tab I, and physical samples). We encountered a 40' section of dry vadose zone in BH #1.**

Multiple, intermittent stringers of anhydrite in dry gypsum were encountered from 18' bgs to 49.5' bgs (see Tab E, Tab I, and physical samples).

The first impervious clay zone was encountered at 49.5' bgs (see Tab E, Tab I, and physical samples).

We tapped into the top part of the saturated zone (moisture) at 50' bgs (see Tab E, Tab I, and physical samples), at the end of the first day.

On the 10/17/07 we finished drilling to a depth of 65'bgs and set casing. On the 10/18/07 we returned to develop the well and take a water sample. The static water level is currently at 19.6' bgs (see Tab E). **Water did not rise into the well column until the drilling depth exceeded 50' bgs.**

An analysis for Total Ions was conducted on the water samples taken from the pit area and BH #1(see Table or Tab J).

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

A comparative analytical analysis from the two water samples is as follows:

BIG EDDY # 151 - TOTAL IONS COMPARISON (ppm)

	DATE	Na	Ca	Mg	K	CL^-	SO_4
BH #1 -55'bgs	10/18/07	40	619	72.6	4.03	64	1620
Pit Center - 18' bgs	10/26/07	22,029	1497	857	2500	37,400	5,380

	DATE	CO_3	HCO_3	T. Alkal.	Conduct.	pH	TDS
BH #1 -55'bgs	10/18/07	0	195	160	2690	7.29	2649
Pit Center - 18' bgs	10/26/07	0	92.7	76	95,200	7.52	71,052

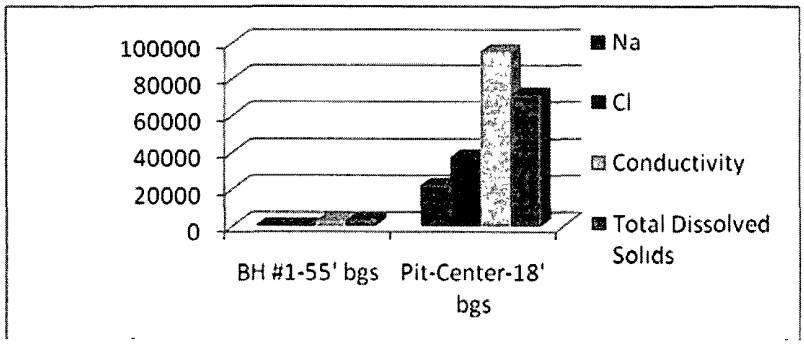
Analytical results for chlorides (Cl^-), sodium (Na), conductivity, and Total Dissolved Solids (TDS) from the water in the pit area is 37,400 ppm, 22,029 ppm, 95,200 ppm, and 71,052 ppm, respectively (see Table or Tab J). TDS exceeds the acceptable MCL of 10,000 ppm.

Analytical results for chlorides (Cl^-), sodium (Na), conductivity, and Total Dissolved Solids (TDS) from the groundwater sample taken from BH #1 is 64 ppm, 40 ppm, 2690 ppm, and 2649 ppm, respectively (see Table or Tab J). TDS is below the acceptable MCL for potable water.

TDS concentrations from the pit area exceed the 10,000 ppm MCL acceptable levels for drinking water standards (potable water) by 61,052 ppm. These results clearly demonstrate that is a non-potable water source, or water from a leaking pit liner. Therefore, this is a "non-protected" water source .

BIG EDDY # 151 TOTAL IONS COMPARISON

	Na	Cl	Conductivity	Total Dissolved Solids
BH #1-55' bgs	40	64	2690	2649
Pit-Center-18' bgs	22029	37400	95200	71052



3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

VIII. **Recommendation**

Analytical results indicate that the pit water exceeds 10,000 ppm TDS and therefore is a "non-protected" water source as a result of a leaking liner.

Soil lithology indicates that the fluid encountered in the excavated pit area from 18' bgs – 22' bgs is underlain by a series of impervious zones preventing further migration downward, and preventing any groundwater from migrating upward.

As a result, the fluid encountered in the pit area is a "perched water layer", and does not present an immediate risk of impact to groundwater.

Therefore we would like to propose the following Risk Based Closure:

1. Excavate and remove all impacted material exceeding 5000 ppm chlorides
2. Blend all impacted material to 1000 ppm
3. Fill excavated area with blended material
4. Cap entire pit area with a 20 ml liner
5. Cover with approximately 3' of soil like material

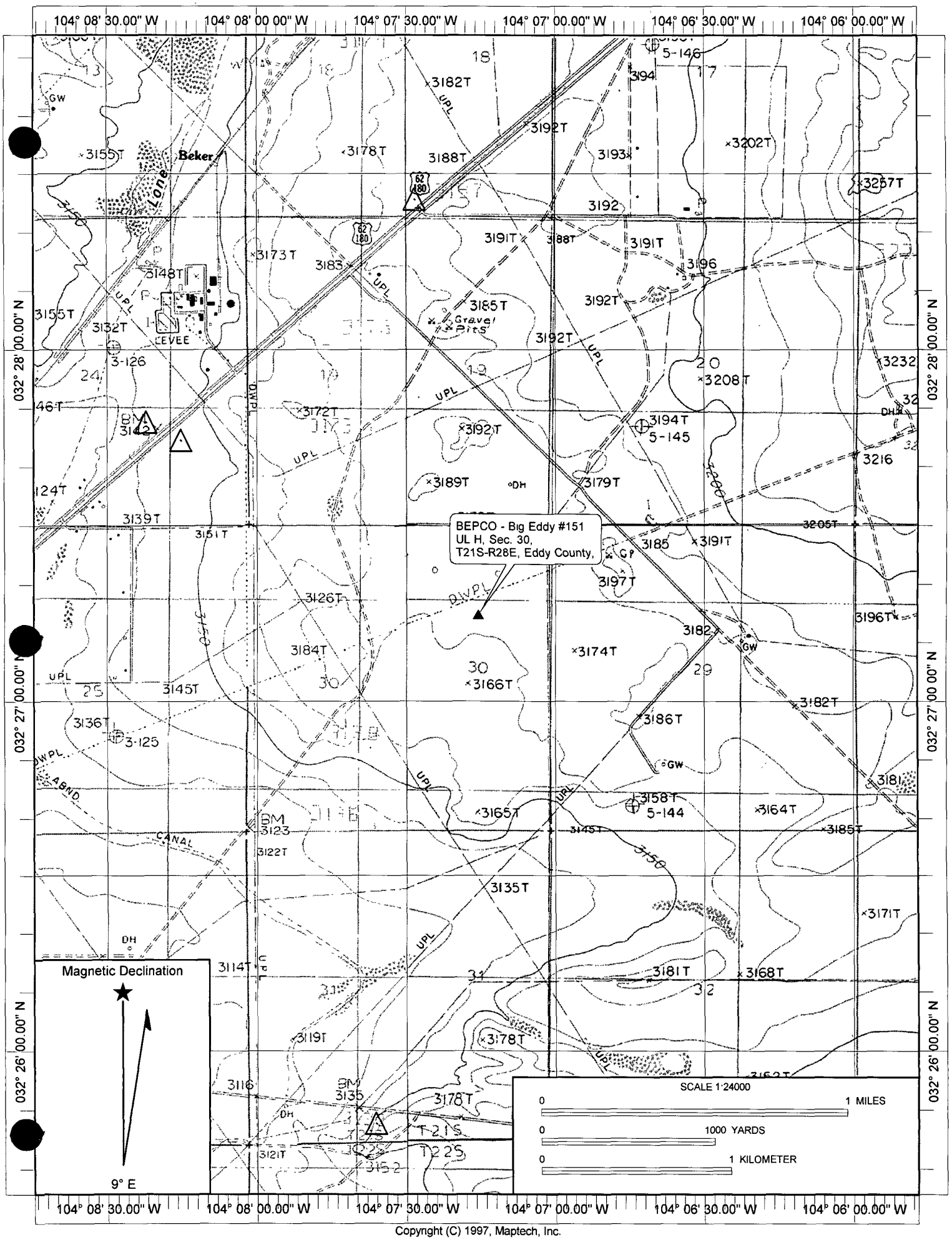
Your consideration would be greatly appreciated.

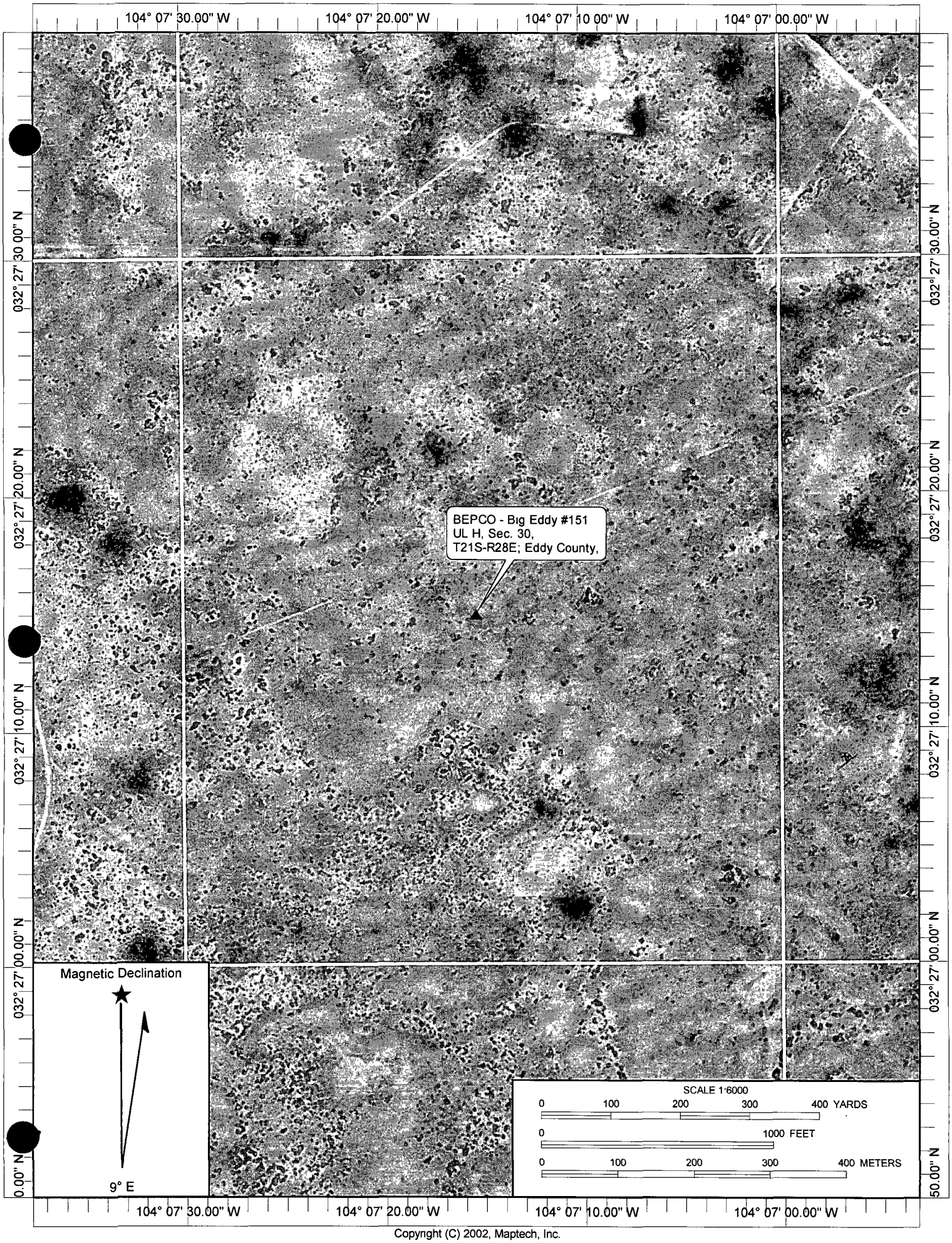
3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140

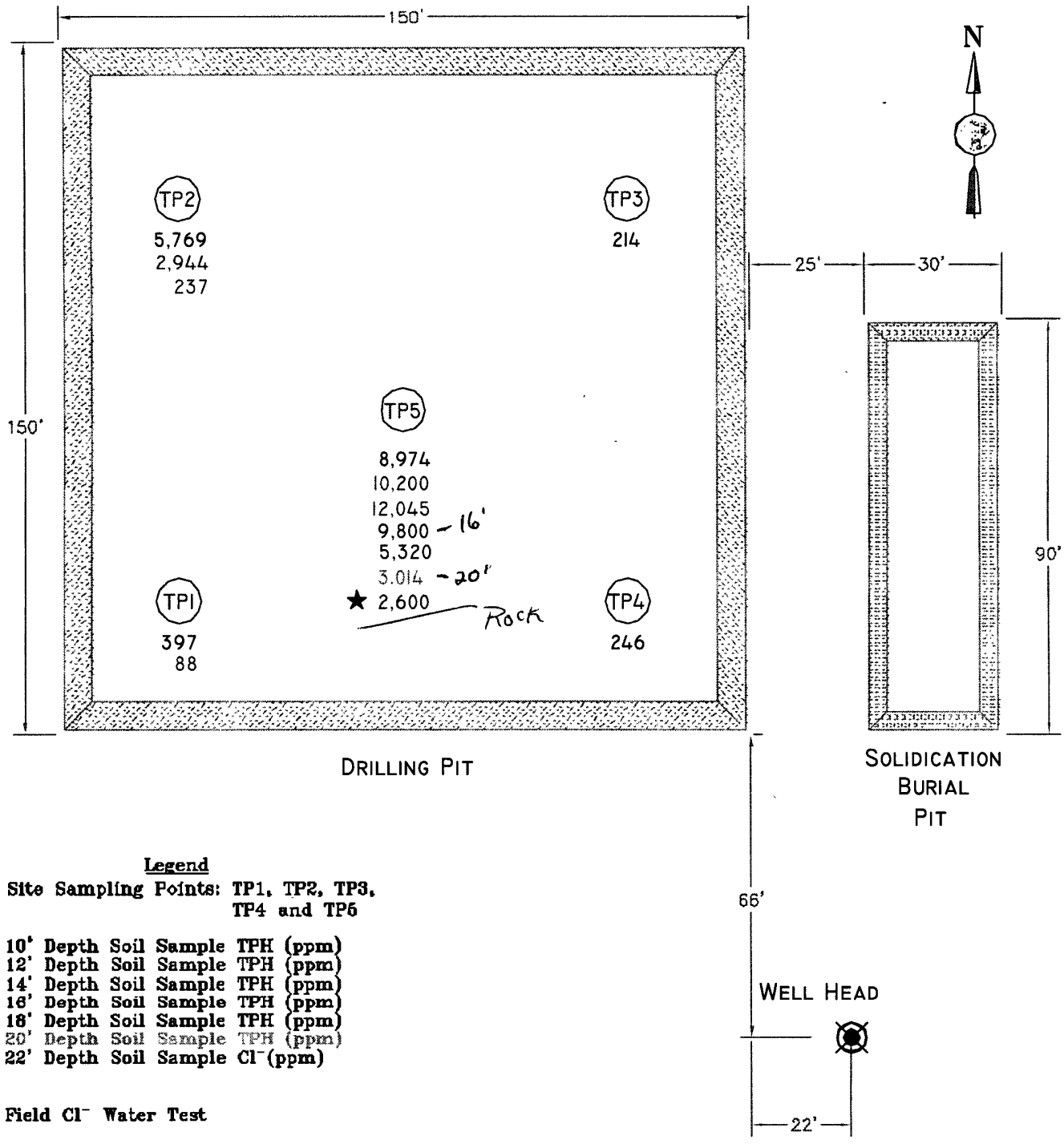
VII. **Figures & Appendices**

Tab A – Vicinity Map
Tab B – Aerial Map
Tab C – Initial Site Sampling Map
Tab D – Site Map Analytical Results
Tab E - Well Log
Tab F - Chevron-Texaco Groundwater Map
Tab G - NMOCD Approved C-144
Tab H – Elke Notification (C-141)
Tab I – Site Photos
Tab J – Analytical Results
Tab K – Chain-of-Custody

3506 West County Rd, Hobbs, NM 88241 (575) 738-0138 Fax (575) 738-0140







Legend

Site Sampling Points: TP1, TP2, TP3, TP4 and TP5

10' Depth Soil Sample TPH (ppm)
12' Depth Soil Sample TPH (ppm)
14' Depth Soil Sample TPH (ppm)
16' Depth Soil Sample TPH (ppm)
18' Depth Soil Sample TPH (ppm)
20' Depth Soil Sample TPH (ppm)
★ **22' Depth Soil Sample Cl^-(ppm)**

★ **Field Cl^- Water Test**

Property: Big Eddy Unit No. 151
Quarter H, Section 30
Township 21 South, Range 28 East
Eddy County, NM
API No.: 30-015-33157
Latitude 32.453972
Logitude 104.120750

Legend

Open Pit Edge/Berm

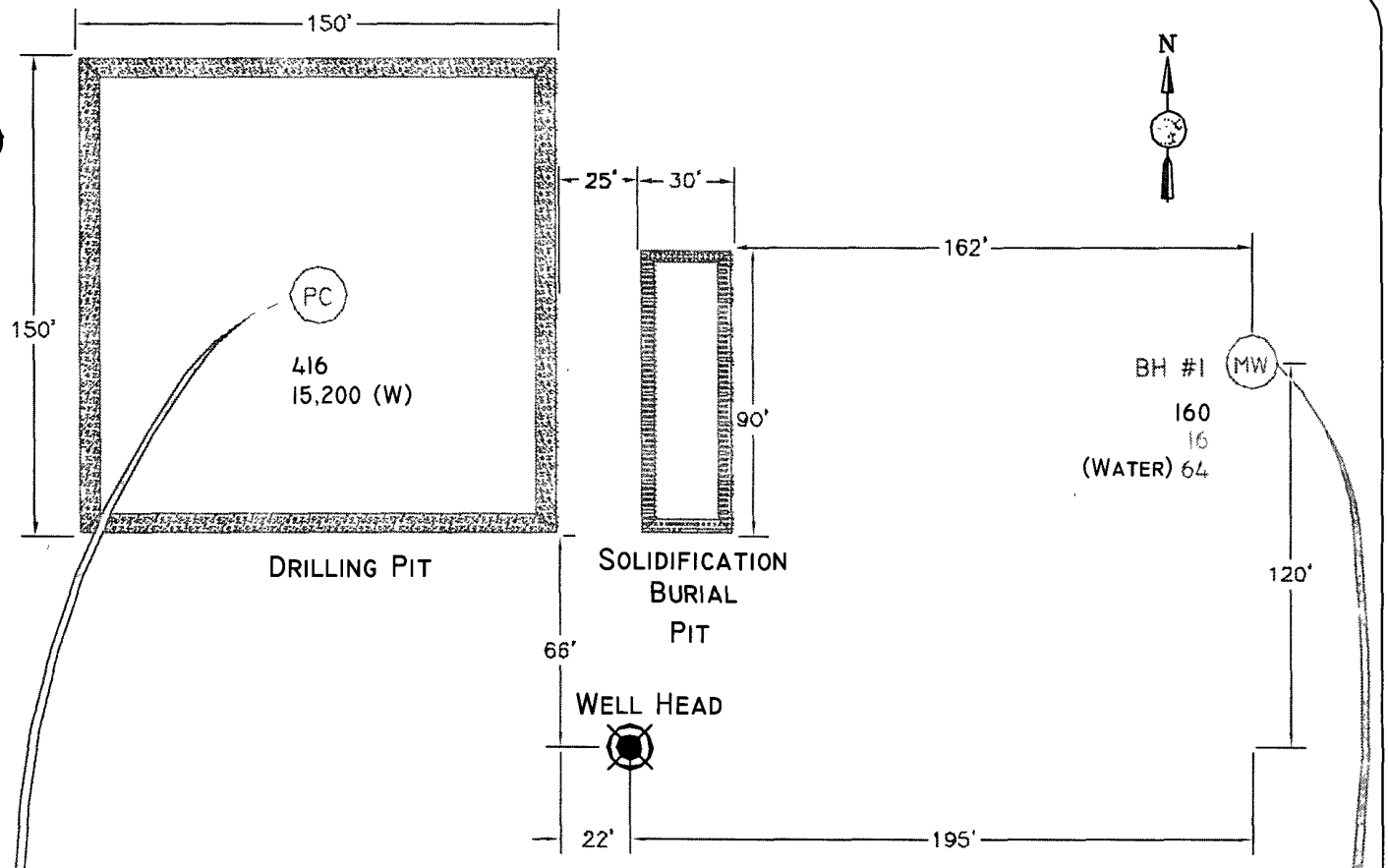
Scale: None

Project: BAS-07-001
Location:
Big Eddy Unit No. 151
Eddy County, NM
Drilling Pit Closure
Site Map – Initial Site Sampling Map

Date: 12/21/07 **Scale:None**

Bass Enterprises Production Company
P.O. Box 2760
Midland, TX 79702

Elke Environmental, Inc.
3508 West County Rd.
Hobbs, NM 88240



Total Ions Comparision (Water ppm)

	Date	Na	Ca	Mg	K	CL	SO4	CO3	HCO3	T. Alkal.	Conduct.	pH	TDS
BH #1 - 55' bgs	10/18/2007	40	619	72.6	4.03	64	1,620	0	195	160	2,690	7.29	2,649
Pit Center - 18' bgs	10/26/2007	22,029	1,497	857	2,500	37,400	5,380	0	92.7	76	95,200	7.52	71,052

Legend

Site Sampling Points: Pit Center – PC
Monitor Well – MW (BH1)

0-6' Depth Soil Sample Cl- (ppm)
18' Depth Soil Sample Cl- (ppm)
20' Depth Soil Sample Cl- (ppm)
55' Depth Soil Sample Cl- (ppm)

Property: Big Eddy Unit No. 151
Quarter H, Section 30
Township 21 South, Range 28 East
Eddy County, NM
API No.: 30-015-33157
Latitude 32.453972
Logitude 104.120750

Legend

Open Pit Edge/Berm

Scale: None

Project: BAS-07-001
Location:
Big Eddy Unit No. 151
Eddy County, NM
Drilling Pit Closure
Site Map – Analytical Site Result Map
Date: 12/21/07 Scale: None

Bass Enterprises Production Company
P.O. Box 2760
Midland, TX 79702

Elke Environmental, Inc.
3506 West County Rd.
Hobbs, NM 88240

ELKE Environmental, Inc.

3506 West Cnty. Rd., P.O. Box 1830,
Hobbs, NM 88241

FIELD BOREHOLE LOG

BOREHOLE NO.: **BH - #1**

TOTAL DEPTH: **65'**

PROJECT INFORMATION

PROJECT:	**Bass Enterprises**
SITE LOCATION:	**Big Eddy # 151**
JOB NO.:	**BAS -07-001**
LOGGED BY:	**Jerry Brian**
PROJECT MANAGER:	**Jerry Brian**
DATES DRILLED:	**10/16 - 10/17/07**

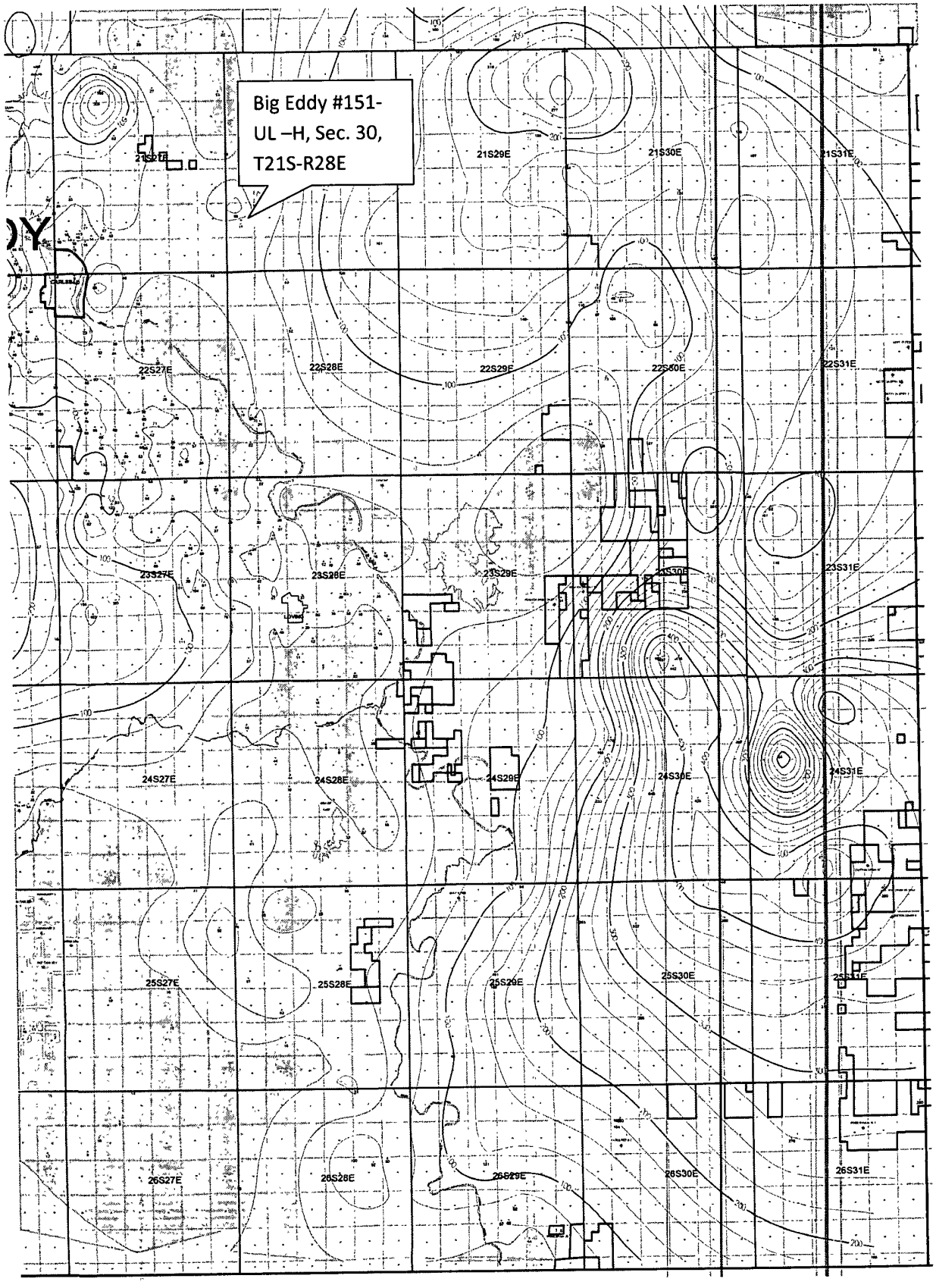
DRILLING INFORMATION

DRILLING CO.:	**Eco/Enviro Drilling**
DRILLER:	**Roy Taylor**
RIG TYPE:	**Mobil 51**
METHOD OF DRILLING:	**Hollow Stem Auger**
SAMPLING METHODS:	**Split Spoon**

Saturated Zone

Static Water Level

DEPTH	LITHOLOGY SOIL TYPE	SAMPLE DEPTH	LITHOLOGY DESCRIPTION	WELL COLUMN	WELL DESCRIPTION	DEPTH
0		SS-5'BGS	Caliche: Tan caliche w/humus		Bentonite	0
5		SS-10'BGS				5
10		SS-15'BGS	Clayey Sand: Red, w/some clay, wet, fn grnd			10
15		SS-20'BGS	Anhydrite: hard, drk grey, Dry			15
20		SS-25'BGS	Gypsum: Dry Anhydrite: hard, dark grey, Dry		Backfill Material	20
25		SS-30'BGS	Gypsum: Dry Anhydrite: hrd, drk grey, Dry			25
30		SS-35'BGS	Gypsum Anhydrite			30
35		SS-40'BGS	Gypsum		Bentonite	35
40		SS-45'BGS	Clay: Drk brn, moist Gypsum: Dry			40
45		SS-50'BGS	Anhydrite: hrd, drk grey, Dry			45
50		SS-55'BGS	Clay and Sand: Fn grnd, tan/brn		Sand Pack, 8/16' gravel	50
55		SS-60'BGS	Anhydrite: hrd, drk grey, Dry		Screened Interval, .035 Slotted	55
60		SS-65'BGS	Clay and Silt: Clay w/silt,tan, moist Clay: Clay/gravel, wet. sat. zone			60


Big Eddy #151-
UL –H, Sec. 30,
T21S-R28E
21S27E
21S28E
21S29E
21S30E
21S31E
22S27E
22S28E
22S29E
22S30E
22S31E
23S27E
23S28E
23S29E
23S30E
23S31E
24S27E
24S28E
24S29E
24S30E
24S31E
25S27E
25S28E
25S29E
25S30E
26S27E
26S28E
26S29E
26S30E
26S31E

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office. 2006
For downstream facilities, submit to Santa Fe office

RECEIVED
OCD - ARTESIA

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: BEPCO, L.P. Telephone: (432)683-2277 e-mail address: cdgoodman@basspet.com
Address: P.O. BOX 2760 MIDLAND, TX 79702-2760
Facility or well name: BIG EDDY UNIT #151 API#: 30-015-33157 U/lor Qtr/Qtr H Sec 30 T 21S R 28E
County: EDDY Latitude 32.453972 Longitude 104.120750 NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 7300 bbl	Volume: ____ bbl Type of fluid: ____ Construction material: ____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	20

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☒ offsite ☐ If offsite, name of facility ____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ____ ft. and attach sample results (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

Excess water will be removed from the pit. A burial pit will be constructed and lined with 12 mil impervious liner. The drilling pit contents will be mixed with Elke Envionmental Solidification Product at a 20 mud to 1 product ratio to solidify the contents after being placed in the burial pit. After all contents are placed in the burial pit, the contents will be covered with a 20 mil impervious liner with a minimum of 3 ft. overlap on all sides and a minimum of 3 ft below ground level. The burial pit will then be covered with clean native soil and domed to prevent pooling. A final report will be given at the end of the job. Notice will be given 48 hrs before start of job.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☒.**
Date: 10/02/2006
Printed Name/Title CINDI GOODMAN PRODUCTION CLERK Signature Cindi Goodman

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title James W. Gum District II Supervisor Signature ____ Date: 10/5/06

As a condition of approval if during pit construction water is encountered or if water seeps in pits after construction the **OCD MUST BE CONTACTED IMMEDIATELY!**

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company – Bass Enterprises	Contact – Micheal Lyon
Address – P O Box 2760 Midland, TX 79702	Telephone No. – 432-683-2277
Facility Name – Big Eddy #151	Facility Type – Drilling Pit

Surface Owner - Federal	Mineral Owner -	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	30	21S	28E					Eddy

Latitude 32-27-16.1N **Longitude** 104-07-15.7W

NATURE OF RELEASE

Type of Release – Drilling Mud Fluids	Volume of Release ?	Volume Recovered – None
Source of Release – Drilling Pit	Date and Hour of Occurrence ?	Date and Hour of Discovery-2-28-07 11AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Artesia NMOCD Tim Gum 2-28-07 11:33AM Sante Fe NMOCD Glenn Von Gonten 2-28-07 1:33PM	
By Whom? Kim Baker – Elke Environmental	Date and Hour 2-28-07	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. ?	

If a Watercourse was Impacted, Describe Fully.* Drilling mud was hauled to Solidified onsite and buried per approved C-144. After mud was removed a vertical delineation was performed with a trackhoe, and soil was sampled every 2'. Bottom of the drilling pit is 10' below ground surface. Water was reached at 22' and the mud/water tested above standards.

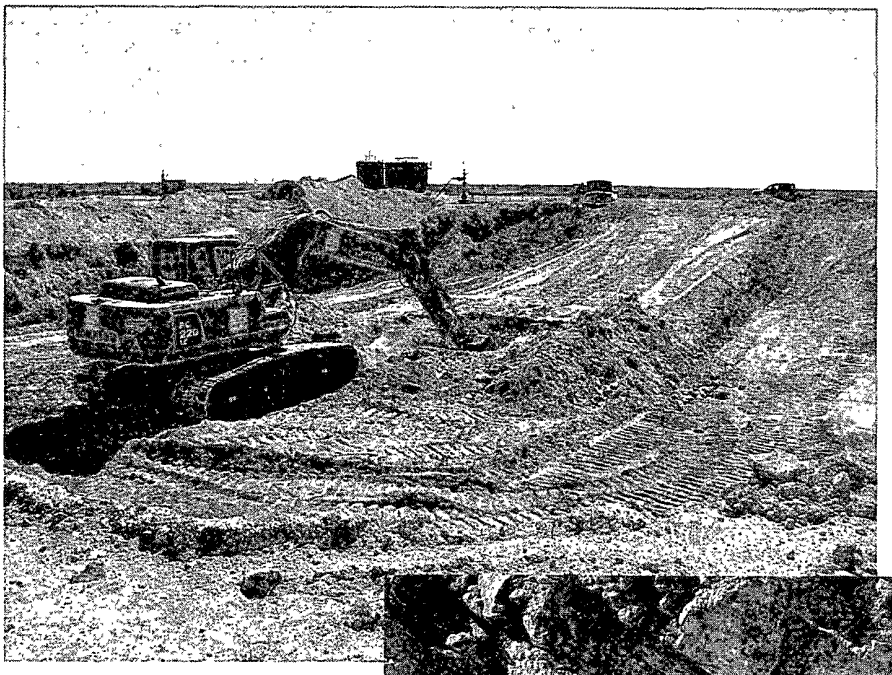
Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

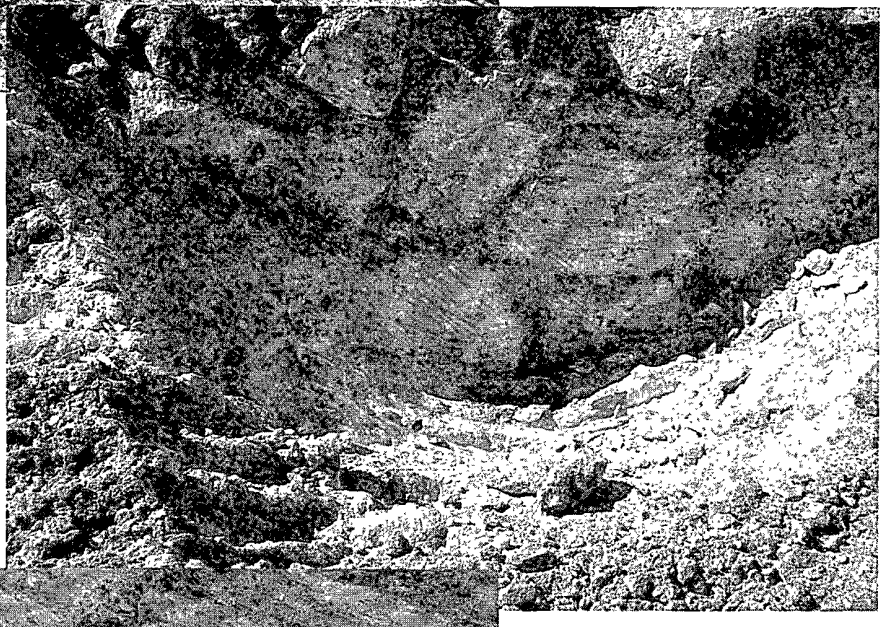
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name:	Approved by District Supervisor:	
Title:	Approval Date:	Expiration Date:
E-mail Address:	Conditions of Approval:	Attached ☐
Date: Phone:		

Attach Additional Sheets If Necessary

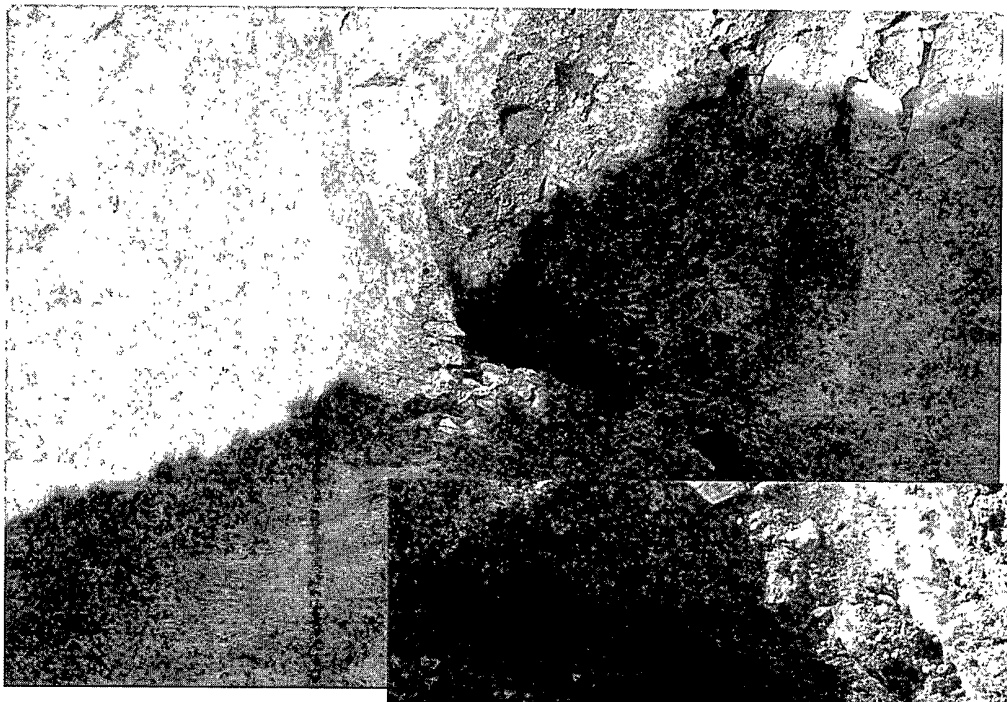


Pit Center-Excavation



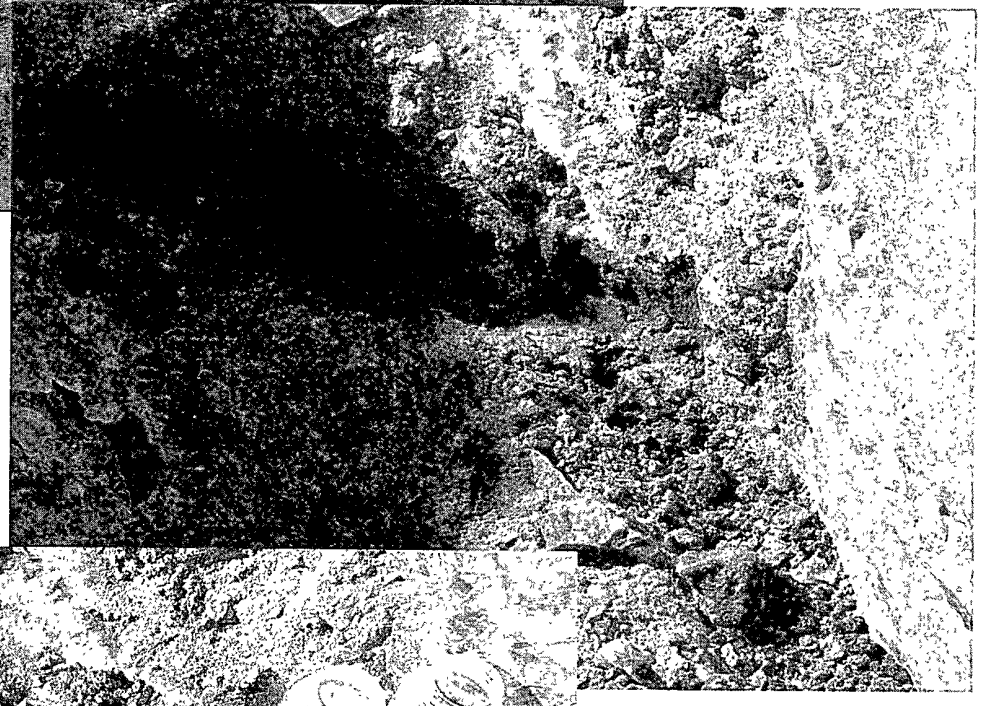
Pit Center-Fractures
13'-18' BGS

Pit Center-Fractures
13'-18' BGS



Pit Center -

Static Water- 18' BGS



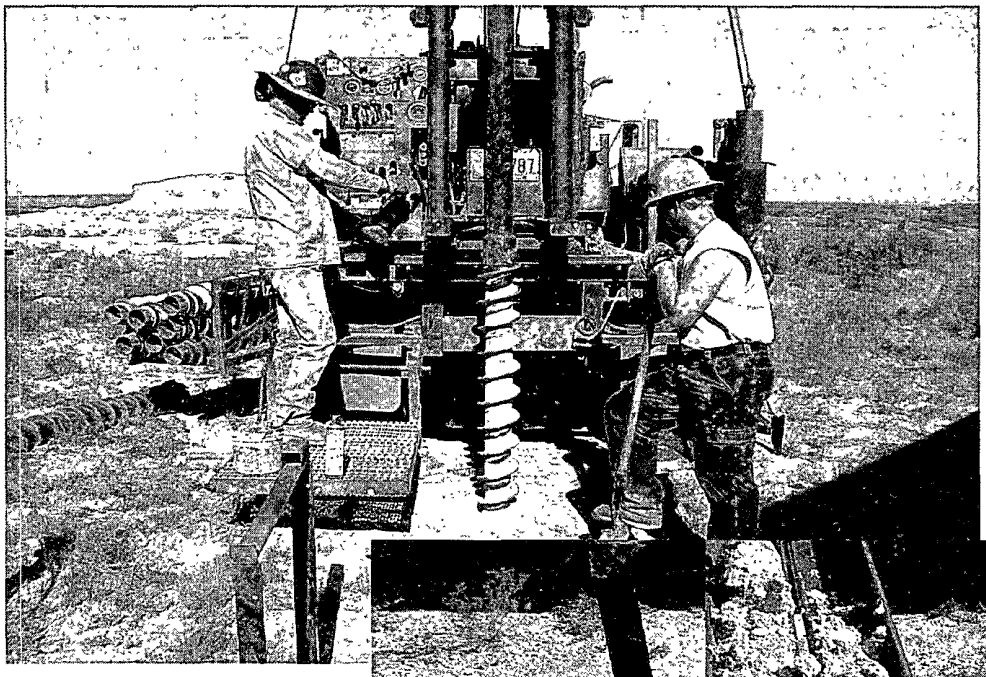
Pit Center -

Static Water- 18' BGS

Pit Center –

Sampling Event

Static Water- 18' BGS



Bore Hole #1-

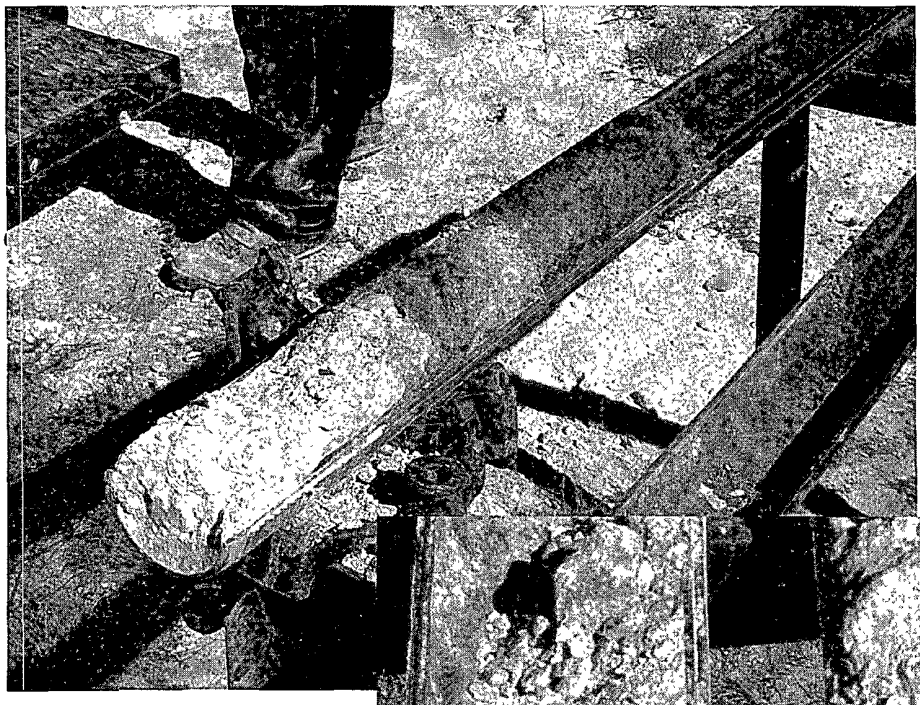
Drilling Begins

Bore Hole #1-

5'-10' BGS (Moist)

Bore Hole #1-

10'-BGS (Moist)



BH #1 -10'-15' BGS

Dry Gypsum w/hard layers of Anhydrite

BH #1 -15' BGS

Dry Gypsum w/hard layers of Anhydrite

BH #1 -15'BGS – 20'BGS

Dry Gypsum w/hard intermittent layers of Anhydrite

BH #1 – 25'-30' BGS

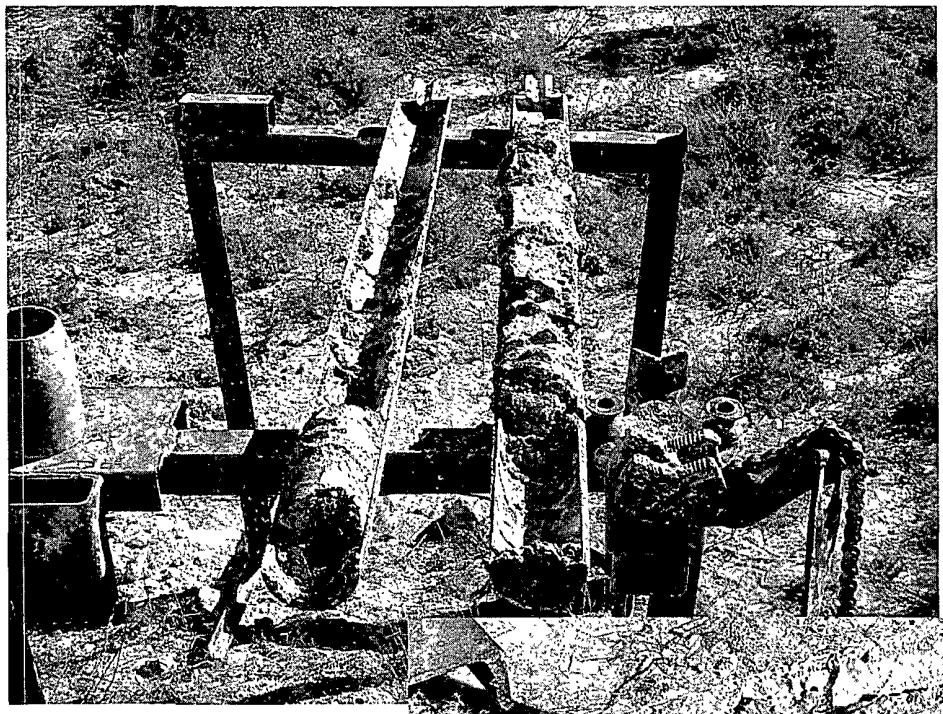
Dry Gypsum w/intermittent layers of hard Anhydrite

BH #1 – 45'-50' BGS

Dry Gypsum w/intermittent layers of hard Anhydrite w/impervious Clay layer at 49.5' BGS

BH #1 – 49.5' BGS (Moist)

Impervious layer of Clay



BH # 1 – 50'-55' BGS

Saturated Zone (Wet)

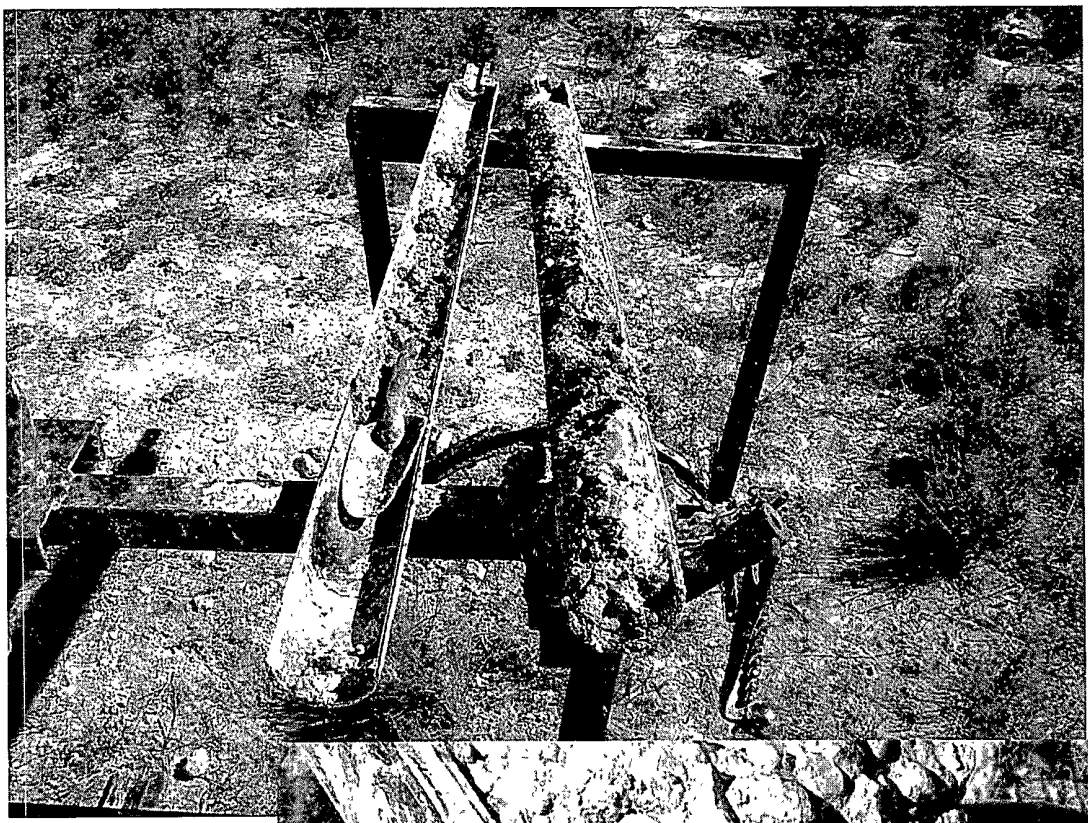
BH # 1 – 50'-55' BGS

Saturated Zone (Wet)

BH # 1 – 50'-55' BGS

Saturated Zone

(Wet Clay & Gravel)

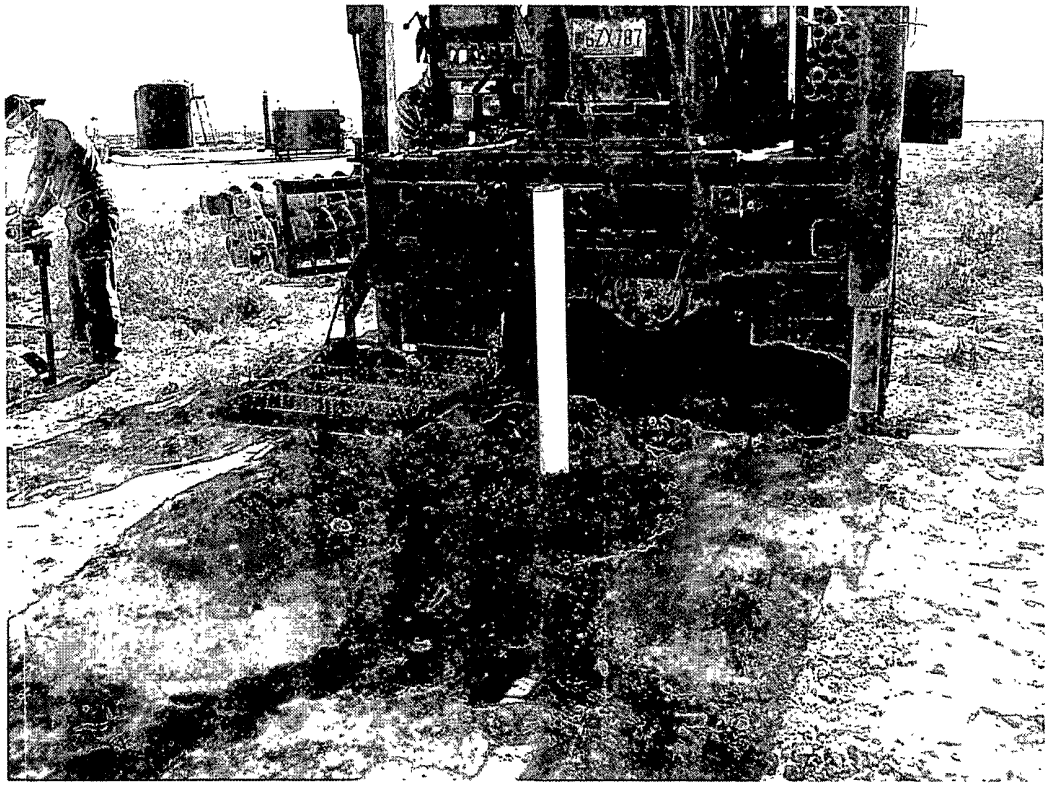


BH - #1 60'-65' BGS

(Saturated Zone)

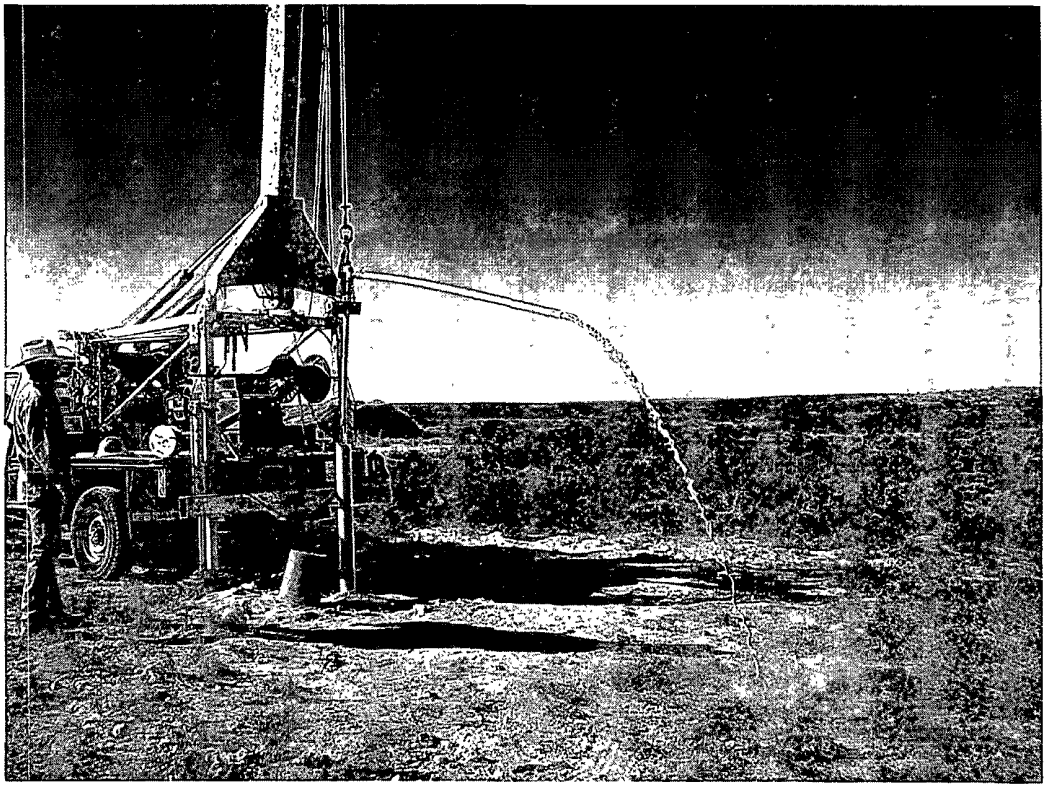
BH - #1 60'-65' BGS

(Saturated Zone)



BH #1-

Monitor Well Installation



BH #1-

Monitor Well Development

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ELKE ENVIRONMENTAL
ATTN: JERRY BRIAN
P.O. BOX 1830
HOBBS, NM 88241
FAX TO: (575) 738-0140

Receiving Date: 10/26/07
Reporting Date: 11/01/07
Project Number: BAS-07-001
Project Name: BIG EDDY #151
Project Location: EDDY COUNTY, NM

Sampling Date: 10/26/07
Sample Type: WATER
Sample Condition: INTACT
Sample Received By: SB
Analyzed By: HM/KS

LAB NUMBER SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (uS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:	10/31/07	10/31/07	10/31/07	10/30/07	10/29/07	10/29/07
H13591-1 PIT-CENTER 18'BGS	22,029	1497	857	2,500	95,200	76.0
Quality Control	NR	49.2	51.6	2.73	1,396	NR
True Value QC	NR	50.0	50.0	3.00	1,404	NR
% Recovery	NR	98.4	103	91.0	99.4	NR
Relative Percent Difference	NR	< 0.1	< 0.1	6.7	0.7	NR
METHODS:		SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:	10/31/07	10/31/07	10/29/07	10/29/07	10/29/07	10/26/07
H13591-1 PIT-CENTER 18'BGS	37,400	5,380	0	92.7	7.52	71,052
Quality Control	500	23.5	NR	1000	6.99	NR
True Value QC	500	25.0	NR	1000	7.00	NR
% Recovery	100	93.9	NR	100	99.9	NR
Relative Percent Difference	< 0.1	12.5	NR	1.2	0.3	NR
METHODS:	SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

11-01-07
Date

H13591 ELKE

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ELKE ENVIRONMENTAL
ATTN: J. BRIAN
P.O. BOX 1830
HOBBS, NM 88241
FAX TO: (575) 738-0140

Receiving Date: 10/22/07
Reporting Date: 10/22/07
Project Number: BAS-07-001
Project Name: BIG EDDY #151
Project Location: EDDY COUNTY, NM

Analysis Date: 10/22/07
Sampling Date: 10/16/07
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: SB
Analyzed By: KS

LAB NUMBER	SAMPLE ID	Cl^- (mg/kg)
H13551-1	BG #1-0-6" BGS	160
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1
METHOD: Standard Methods		4500-ClB

Note: Analysis performed on a 1:4 w:v aqueous extract.

Kristen Sypreba
Chemist

10/22/07
Date

H13551 ELKE

ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ELKE ENVIRONMENTAL
ATTN: J. BRIAN
P.O. BOX 1830
HOBBS, NM 88241
FAX TO: (575) 738-0140

Receiving Date: 10/26/07
Reporting Date: 10/30/07
Project Number: BAS-07-001
Project Name: BIG EDDY #151
Project Location: EDDY COUNTY, NM

Analysis Date: 10/30/07
Sampling Date: 10/16/07 & 10/24/07
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: SB
Analyzed By: KS

LAB NUMBER	SAMPLE ID	Cl^- (mg/kg)
H13590-1	BH #1-20' BGS	16
H13590-2	PIT #2-CENTER 18' BGS	416
H13590-3	PIT #1 -CENTER 18' BGS (W)	15,200
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-Cl^-B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Kristen Dupree
Chemist

10/30/07
Date

H13590 ELKE

CARDINAL LABORATORIES

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ELKE ENVIRONMENTAL
ATTN: J. BRIAN
P.O. BOX 1830
HOBBS, NM 88241
FAX TO: (575) 738-0140

Receiving Date: 10/19/07
Reporting Date: 10/24/07
Project Number: BAS-07-001
Project Name: BIG EDDY #151
Project Location: EDDY COUNTY, NM

Sampling Date: 10/18/07
Sample Type: GROUNDWATER
Sample Condition: INTACT
Sample Received By: KS
Analyzed By: HM/KS

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		10/24/07	10/24/07	10/24/07	10/23/07	10/19/07	10/19/07
H13542-1	BH #1 - 55' BGS	40	619	72.6	4.03	2,690	160
Quality Control		NR	49.2	51.6	2.92	9,800	NR
True Value QC		NR	50.0	50.0	3.00	10,000	NR
% Recovery		NR	98.5	103	97.3	98.0	NR
Relative Percent Difference		NR	2.8	1.6	2.7	0.4	NR
METHODS:			SM3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		10/22/07	10/23/07	10/19/07	10/19/07	10/19/07	10/22/07
H13542-1	BH #1 - 55' BGS	64	1,620	0	195	7.29	2,649
Quality Control		510	26.6	NR	988	6.98	NR
True Value QC		500	25.0	NR	1000	7.00	NR
% Recovery		102	106	NR	98.8	99.7	NR
Relative Percent Difference		2.0	14.4	NR	< 0.1	0.4	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Chemist

10-24-07
Date

H13542 ELKE

ENVIRONMENTAL LAB OF
12600 West I-20 East - Odessa, Texas 79765
A Xenco Laboratories Company

Analytical Report

Prepared for:

Kim Baker

Elke Environmental

P.O. Box 14167

Odessa, TX 79768

Project: Big Eddy #151

Project Number: None Given

Location: Bass Enterprise

Lab Order Number: 7C01007

Report Date: 03/13/07

Elke Environmental	Project. Big Eddy #151	Fax. (432) 366-0884
P O Box 14167	Project Number None Given	
Odessa TX, 79768	Project Manager Kim Baker	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP1@ 12'	7C01007-01	Soil	02/28/07 07 00	03-01-2007 13:15
TP2@ 14'	7C01007-02	Soil	02/28/07 08 00	03-01-2007 13:15
TP3@ 10'	7C01007-03	Soil	02/28/07 09 00	03-01-2007 13.15
TP4@ 10'	7C01007-04	Soil	02/28/07 10.00	03-01-2007 13 15

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Elke Environmental	Project Big Eddy #151	Fax. (432) 366-0884
P.O Box 14167	Project Number None Given	
Odessa TX, 79768	Project Manager Kim Baker	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP1@ 12' (7C01007-01) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70206	03/02/07	03/07/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*94.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*102 %*	*70-130*		"	"	"	"	
TP2@ 14' (7C01007-02) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70206	03/02/07	03/05/07	EPA 8015M	
Carbon Ranges C12-C28	**15.5**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**15.5**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	
TP3@ 10' (7C01007-03) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70206	03/02/07	03/05/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*100 %*	*70-130*		"	"	"	"	
TP4@ 10' (7C01007-04) Soil									
Carbon Ranges C6-C12	**20.8**	10.0	mg/kg dry	1	EC70206	03/02/07	03/05/07	EPA 8015M	
Carbon Ranges C12-C28	**31.1**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**51.9**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*110 %*	*70-130*		"	"	"	"	

Elke Environmental	Project Big Eddy #151	Fax. (432) 366-0884
P.O Box 14167	Project Number None Given	
Odessa TX, 79768	Project Manager Kim Baker	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP1@ 12' (7C01007-01) Soil									
Chloride	**J [5.25]**	20.0	mg/kg	40	EC70501	03/02/07	03/03/07	EPA 300.0	J
% Moisture	**20.3**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	
TP2@ 14' (7C01007-02) Soil									
Chloride	**83.4**	20.0	mg/kg	40	EC70501	03/02/07	03/03/07	EPA 300.0	
% Moisture	**16.4**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	
TP3@ 10' (7C01007-03) Soil									
Chloride	**28.1**	20.0	mg/kg	40	EC70501	03/02/07	03/03/07	EPA 300.0	
% Moisture	**21.8**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	
TP4@ 10' (7C01007-04) Soil									
Chloride	**266**	25.0	mg/kg	50	EC70501	03/02/07	03/03/07	EPA 300.0	
% Moisture	**21.5**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Elke Environmental
P O. Box 14167
Odessa TX, 79768

Project: Big Eddy #151
Project Number. None Given
Project Manager. Kim Baker

Fax (432) 366-0884

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70206 - Solvent Extraction (GC)										
Blank (EC70206-BLK1)				Prepared & Analyzed 03/02/07						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10 0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate. 1-Chlorooctane	*53.5*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*63.4*		"	*50.0*		*127*	*70-130*			
LCS (EC70206-BS1)				Prepared & Analyzed. 03/02/07						
Carbon Ranges C6-C12	603	10 0	mg/kg wet	500		121	75-125			
Carbon Ranges C12-C28	512	10.0	"	500		102	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0 00			75-125			
Total Hydrocarbons	1120	10 0	"	1000		112	75-125			
Surrogate 1-Chlorooctane	*63.5*		*mg/kg*	*50.0*		*127*	*70-130*			
Surrogate. 1-Chlorooctadecane	*62 6*		"	*50 0*		*125*	*70-130*			
Calibration Check (EC70206-CCV1)				Prepared: 03/02/07 Analyzed 03/05/07						
Carbon Ranges C6-C12	221		mg/kg	250		88 4	80-120			
Carbon Ranges C12-C28	235		"	250		94 0	80-120			
Total Hydrocarbons	455		"	500		91 0	80-120			
Surrogate 1-Chlorooctane	*57 2*		"	*50.0*		*114*	*70-130*			
Surrogate 1-Chlorooctadecane	*56 6*		"	*50.0*		*113*	*70-130*			
Matrix Spike (EC70206-MS1)	**Source: 7C01016-02**			Prepared: 03/02/07 Analyzed: 03/06/07						
Carbon Ranges C6-C12	734	10 0	mg/kg dry	568	ND	129	75-125			M1
Carbon Ranges C12-C28	626	10 0	"	568	ND	110	75-125			
Carbon Ranges C28-C35	ND	10 0	"	0 00	ND		75-125			
Total Hydrocarbons	1360	10.0	"	1140	ND	119	75-125			
Surrogate 1-Chlorooctane	*56 2*		*mg/kg*	*50 0*		*112*	*70-130*			
Surrogate 1-Chlorooctadecane	*57 6*		"	*50 0*		*115*	*70-130*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70206 - Solvent Extraction (GC)										
Matrix Spike Dup (EC70206-MSD1)	**Source: 7C01016-02**			Prepared: 03/02/07 Analyzed: 03/06/07						
Carbon Ranges C6-C12	731	10.0	mg/kg dry	568	ND	129	75-125	0 00	20	M1
Carbon Ranges C12-C28	616	10 0	"	568	ND	108	75-125	1 83	20	
Carbon Ranges C28-C35	ND	10.0	"	0 00	ND		75-125		20	
Total Hydrocarbons	1350	10 0	"	1140	ND	118	75-125	0 844	20	
Surrogate 1-Chlorooctane	*52.3*		*mg/kg*	*50.0*		*105*	*70-130*			
Surrogate 1-Chlorooctadecane	*57 0*		"	*50 0*		*114*	*70-130*			

Elke Environmental
P O Box 14167
Odessa TX, 79768

Project Big Eddy #151
Project Number None Given
Project Manager Kim Baker

Fax. (432) 366-0884

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70205 - General Preparation (Prep)										
Blank (EC70205-BLK1)				Prepared & Analyzed: 03/01/07						
% Solids	100		%							
Duplicate (EC70205-DUP1)		**Source: 7C01001-01**		Prepared & Analyzed: 03/01/07						
% Solids	55.2		%		52 4			5 20	20	
Duplicate (EC70205-DUP2)		**Source: 7C01019-04**		Prepared & Analyzed: 03/01/07						
% Solids	89 4		%		88 9			0 561	20	
Duplicate (EC70205-DUP3)		**Source: 7C01018-05**		Prepared & Analyzed: 03/01/07						
% Moisture	12 6	0 1	%		14.6			14.7	20	
Batch EC70501 - General Preparation (WetChem)										
Blank (EC70501-BLK1)				Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	ND	0.500	mg/kg							
LCS (EC70501-BS1)				Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	10.8	0 500	mg/kg	10 0		108	80-120			
Calibration Check (EC70501-CCV1)				Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	9 59		mg/kg	10 0		95.9	80-120			
Duplicate (EC70501-DUP1)		**Source: 7B28001-01**		Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	304	10 0	mg/kg		304			0 00	20	
Duplicate (EC70501-DUP2)		**Source: 7C01016-01**		Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	154	10.0	mg/kg		157			1.93	20	

Elke Environmental
P O Box 14167
Odessa TX, 79768

Project Big Eddy #151
Project Number None Given
Project Manager Kim Baker

Fax. (432) 366-0884

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70501 - General Preparation (WetChem)										
Matrix Spike (EC70501-MS1)	**Source: 7B28001-01**			Prepared 03/02/07 Analyzed: 03/03/07						
Chloride	538	10.0	mg/kg	200	304	117	80-120			
Matrix Spike (EC70501-MS2)	**Source: 7C01016-01**			Prepared 03/02/07 Analyzed. 03/03/07						
Chloride	661	10.0	mg/kg	200	157	252	80-120			M1

Elke Environmental	Project. Big Eddy #151	Fax (432) 366-0884
P O Box 14167	Project Number None Given	
Odessa TX, 79768	Project Manager Kim Baker	

Notes and Definitions

M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
J	Detected but below the Reporting Limit, therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: _____ Date: 3/13/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name:	EIKE ENV	**BILL TO**	
Project Manager:	J Brimm	P.O. #:	
Address:	P.O.Box 1830	Company:	
City:	Hobbs	State: NM Zip: 88241	
Phone #:	738-0138	Fax #: 738-0140	
Project #:	BAS-07-001	Project Owner: BEPCO	
Project Name:	Big Eddy #151		
Project Location:	Eddy Cnty		
Sampler Name:	JB		

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	Total Ions	PAS											
H13590-1	Pit-Center 18'BGS	X		X									10/26/07	10:45 AM	X	X											

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: JBrimm	Date: 10/26/07 Time: 2:20 PM	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By: Sue Barnes 10/26/07 2:20pm	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition Cool: ☐ Yes ☑ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) SB	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	EIKE Env	**BILL TO**	
Project Manager:	J Brian	P.O. #:	
Address:	P.O. Box 1830	Company:	
City:	Hobbs State: NM Zip: 88241	Attn:	
Phone #:	738-0138 Fax #: 738-0140	Address:	
Project #:	BAS-07-001 Project Owner BEPCO	City:	
Project Name:	Big Eddy #151	State: Zip:	
Project Location:	Eddy County	Phone #:	
Sampler Name:	QB	Fax #:	

ANALYSIS REQUEST: Cl

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	PRESERV: ACID/BASE	ICE / COOL	OTHER	SAMPLING: DATE	TIME	Cl
H23550-1	BH #1 - 20 BGS	X				X							10/16/07	11:45AM	X
2	Pit #2 - Center 18' BGS	X				X							10/24/07	3:30 PM	X
3	Pit #1 - Center 18' BGS (W)	X				X							10/24/07	3:30PM	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Relinquished By:	Date: 10/26/07 Time: 2:20 PM	Received By:	
Relinquished By:	Date: Time:	Received By: Sue Barnes 10/26/07 2:20 PM	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition: Cool: Yes / No; Intact: Yes / No	CHECKED BY: (Initials) SB

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name:	EIKE ENV.	**BILL TO**	
Project Manager:	J Brian	P.O. #:	
Address:	P.O. Box 1830	Company:	
City:	Hobbs State: NM Zip: 88241	Attn:	
Phone #:	738-0138 Fax #: 738-0140	Address:	
Project #:	BAS-07-001 Project Owner: Bass Ent	City:	
Project Name:	Big Eddy #151	State: Zip:	
Project Location:	Eddy Cnty	Phone #:	
Sampler Name:	JB	Fax #:	

ANALYSIS REQUEST: J

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	
H13551-1	BD #1 - 0-6" Bbs	G	1			X							10/16/07	10:00 Am	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: J Brian	Date: 10/22/07 Time: 10:55 Am	Received By:	
Relinquished By:	Date: Time:	Received By: Sue Barnes 10/22/07 10:55AM	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials) SB

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

CARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name:	ELCE Environmental	**BILL TO**	
Project Manager:	Brian	P.O. #:	
Address:	P.O. Box 1830	Company:	
City:	Hobbs State: NM Zip: 88241	Attn:	
Phone #:	738-0138 Fax #: 738-0140	Address:	
Project #:	BAS-07-001 Project Owner: Bass Enterp.	City:	
Project Name:	Big Eddy #151	State: Zip:	
Project Location:	Eddy Cnty	Phone #:	
Sampler Name:		Fax #:	

ANALYSIS REQUEST: BTEX, TPH

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME	BTEX	TPH
H13542-1	BH #1 - 55 BBS	X		X									10/18/07	5:50pm	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 10/19/07 Time: 3:15 pm	Received By:	
Relinquished By:	Date: Time:	Received By:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Sample Condition: Cool: ☐ Yes ☑ No; Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) KS	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

:nvironmental Lab of Texas I, Ltd.

:600 West I-20 East
essa, Texas 79763
Phone 915-563-1800
Fax 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kim Baker 337-5654

Company Name: Elke Environmental, Inc

Company Address: P O Box 14167

City/State/Zip: Odessa, Tx 79768

Telephone No: 432-366-0043 Fax No. 432-366-0884

Sampler Signature: [illegible]

Project Name: Big Eddy #11?

Project #:

Project Loc.: Bass Enterprises

PO #:

(lab use only) :DER #: [illegible]

Lab #	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TPH 418.1 8015M 1005 1006	Cations (Ca Mg Na K)	Anions (Cl SO4 CO3 HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	NORM	TDS / TSS				RUSH TAT (Pre-Schedule)	Standard TAT
-01	TP1 @ 12'	2-28-07	7:00AM	1	X									X		X		X													X
-02	TP2 @ 14'	2-28-07	8:00AM	1	X									X		X		X													X
-03	TP3 @ 10'	2-28-07	9:00AM	1	X									X		X		X													X
-04	TP4 @ 10'	2-28-07	10:00AM	1	X									X		X		X													X

TCLP / TOTAL

Special Instructions:

Sample Containers Intact? Y N
Temperature Upon Receipt:
Laboratory Comments
[illegible]

Relinquished by	Date	Time	Received by	Date	Time
Kim Baker	3-1-07	1:15			
Relinquished by	Date	Time	Received by ELOT	Date	Time
			[illegible signature]	[illegible]	1:35

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Pike Env

Date/ Time: 3/1/19 17:15

Lab ID #: 9B01009

Initials: CK

Sample Receipt Checklist

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

Variance Documentation

Contact ________ Contacted by ________ Date/ Time ________

Regarding: ________

Corrective Action Taken: ________

Check all that Apply

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

Bratcher, Mike, EMNRD

From: Price, Wayne, EMNRD
Sent: Friday, October 05, 2007 3:18 PM
To: Bratcher, Mike, EMNRD; 'jerry brian'; Gum, Tim, EMNRD
Cc: 'Logan Anderson'; 'Tina Spangler'; 'Rob Elam'; 'Mike Waygood'; VonGonten, Glenn, EMNRD
Subject: RE: Elke Environmental - Bass Enterprises-Big Eddy # 151

Pursuant to a technical meeting with Tim Gum District II Supervisor, the district will continue oversight of the closure process. OCD Environmental Bureau does not recommend blending of the remaining contamination; this material should be disposed of at an Approved OCD facility. The Abatement plan shall be submitted by October 29, 2007.

Please note the operator may proceed at its' own risk, If there is remaining contamination, then the Abatement process may require additional source removal and installation of recovery and monitor wells in the pit area. Also, it appears the operator did not report the correct depth to groundwater at the time of the filing of the APD. The district office was evidently unaware of the shallow groundwater depth when they approved the deep trench burial. This may be an issue and will be part of the abatement process review.

From: Bratcher, Mike, EMNRD
Sent: Thursday, September 27, 2007 11:35 AM
To: jerry brian
Cc: Logan Anderson; Tina Spangler; Rob Elam; Mike Waygood; Price, Wayne, EMNRD; VonGonten, Glenn, EMNRD
Subject: RE: Elke Environmental - Bass Enterprises-Big Eddy # 151

Jerry,

Per our phone conversation this morning, after discussing this matter with Wayne Price, NMOCD Environmental Bureau Chief in Santa Fe, he has requested that I inform you that all work at this site is to stop immediately. An abatement/work plan is to be formulated and submitted to the NMOCD Environmental Bureau in Santa Fe for review. Please submit this plan no later than October 29, 2007. If you have any questions regarding this matter, please contact Wayne Price or Glenn Von Gonten in the Santa Fe Office.

Thank you,

Mike Bratcher
NMOCD District 2
1301 W. Grand Ave.
Artesia, NM 88210
(505) 748-1283 Ext. 108
(505) 626-0857
mike.bratcher@state.nm.us

From: jerry brian [mailto:jrbrian@verizon.net]
Sent: Thursday, September 27, 2007 7:31 AM
To: Bratcher, Mike, EMNRD
Cc: Logan Anderson; Tina Spangler; Rob Elam; Mike Waygood
Subject: Elke Environmental - Bass Enterprises-Big Eddy # 151

Hi Mike,

Just an email to confirm that we obtained verbal approval from you on the 9/26/07 to:

1. excavate and remove all impacted material exceeding 5000 ppm chlorides
2. blend all impacted material to 5000 ppm
3. fill excavated area with blended material
4. cap entire pit area with a 20 ml liner
5. cover with approximately 3' of soil like material

As per our discussion, this will allow us to immediately prevent further groundwater impact from the open pit area.

This will be followed immediately with a remedial investigation work plan / stage I abatement plan to be submitted to Glen in Santa Fe.

Thanks,
Jerry Brian - REM, REPA
Geologist

Bratcher, Mike, EMNRD

From: Gum, Tim, EMNRD
Sent: Thursday, September 27, 2007 3:07 PM
To: Bratcher, Mike, EMNRD
Cc: Gum, Tim, EMNRD
Subject: FW: Elke Environmental - Bass Enterprises-Big Eddy # 151

Mike,

I did give John Goode verbal approval to close the pit as we discussed. I do not know who this gay is . John's proposal was to remove any remaining hot stuff and move it to the deep trench .then cap with a 20 mil liner then back fill . There was no mention of blending down to the 5000 ppm level. John was then going to submit a Abatement plan to Santa Fa.

Give me a call tomorrow on what you find out from John Good.

I told Wayne that I did give a verbal.

TWG

From: Price, Wayne, EMNRD
Sent: Thursday, September 27, 2007 9:08 AM
To: Bratcher, Mike, EMNRD; VonGonten, Glenn, EMNRD
Cc: Gum, Tim, EMNRD
Subject: RE: Elke Environmental - Bass Enterprises-Big Eddy # 151

Mike, please inform them OCD Environmental Bureau will handle this case. All work shall immediately stop until they submit a plan to us and we approve.

From: Bratcher, Mike, EMNRD
Sent: Thursday, September 27, 2007 8:49 AM
To: VonGonten, Glenn, EMNRD; Price, Wayne, EMNRD
Cc: Gum, Tim, EMNRD
Subject: FW: Elke Environmental - Bass Enterprises-Big Eddy # 151

Glenn,

Since this is a possible ground water impact incident, I wanted to copy you on it. The way I understand things out there, the only water samples done so far have been samples obtained from water influx in the pit, so we do not actually have confirmation of protectable water impact yet. You can see what they are proposing to prevent further migration and then I told them they would be required to investigate the water impact issue. I also told them that at some point down the road, they may be required to re-excavate and remove this material. And by the way, they did not receive verbal approval. We just discussed what they wanted to do. They have equipment on location and are wanting to move on it. What do you guys think?

Mike
505-748-1283 Ext. 108
505-626-0857

From: jerry brian [mailto:jrbrian@verizon.net]
Sent: Thursday, September 27, 2007 7:31 AM
To: Bratcher, Mike, EMNRD
Cc: Logan Anderson; Tina Spangler; Rob Elam; Mike Waygood
Subject: Elke Environmental - Bass Enterprises-Big Eddy # 151

Hi Mike,

Just an email to confirm that we obtained verbal approval from you on the 9/26/07 to:

1. excavate and remove all impacted material exceeding 5000 ppm chlorides
2. blend all impacted material to 5000 ppm
3. fill excavated area with blended material
4. cap entire pit area with a 20 ml liner
5. cover with approximately 3' of soil like material

As per our discussion, this will allow us to immediately prevent further groundwater impact from the open pit area.

This will be followed immediately with a remedial investigation work plan / stage I abatement plan to be submitted to Glen in Santa Fe.

Thanks,
Jerry Brian - REM, REPA
Geologist

Bratcher, Mike, EMNRD

From: Price, Wayne, EMNRD
Sent: Thursday, September 27, 2007 9:08 AM
To: Bratcher, Mike, EMNRD; VonGonten, Glenn, EMNRD
Cc: Gum, Tim, EMNRD
Subject: RE: Elke Environmental - Bass Enterprises-Big Eddy # 151

Mike, please inform them OCD Environmental Bureau will handle this case. All work shall immediately stop until they submit a plan to us and we approve.

From: Bratcher, Mike, EMNRD
Sent: Thursday, September 27, 2007 8:49 AM
To: VonGonten, Glenn, EMNRD; Price, Wayne, EMNRD
Cc: Gum, Tim, EMNRD
Subject: FW: Elke Environmental - Bass Enterprises-Big Eddy # 151

Glenn,

Since this is a possible ground water impact incident, I wanted to copy you on it. The way I understand things out there, the only water samples done so far have been samples obtained from water influx in the pit, so we do not actually have confirmation of protectable water impact yet. You can see what they are proposing to prevent further migration and then I told them they would be required to investigate the water impact issue. I also told them that at some point down the road, they may be required to re-excavate and remove this material. And by the way, they did not receive verbal approval. We just discussed what they wanted to do. They have equipment on location and are wanting to move on it. What do you guys think?

Mike
505-748-1283 Ext. 108
505-626-0857

From: jerry brian [mailto:jrbrian@verizon.net]
Sent: Thursday, September 27, 2007 7:31 AM
To: Bratcher, Mike, EMNRD
Cc: Logan Anderson; Tina Spangler; Rob Elam; Mike Waygood
Subject: Elke Environmental - Bass Enterprises-Big Eddy # 151

Hi Mike,

Just an email to confirm that we obtained verbal approval from you on the 9/26/07 to:

1. excavate and remove all impacted material exceeding 5000 ppm chlorides
2. blend all impacted material to 5000 ppm
3. fill excavated area with blended material
4. cap entire pit area with a 20 ml liner
5. cover with approximately 3' of soil like material

As per our discussion, this will allow us to immediately prevent further groundwater impact from the open pit area.

This will be followed immediately with a remedial investigation work plan / stage I abatement plan to be submitted to Glen in Santa Fe.

Thanks,
Jerry Brian - REM, REPA
Geologist

This inbound email has been scanned by the MessageLabs Email Security System.

Jerry,

Per our phone conversation this morning, after discussing this matter with Wayne Price, NMOCD Environmental Bureau Chief in Santa Fe, he has requested that I inform you that all work at this site is to stop immediately. An abatement/work plan is to be formulated and submitted to the NMOCD Environmental Bureau in Santa Fe for review. Please submit this plan no later than October 29, 2007. If you have any questions regarding this matter, please contact Wayne Price or Glenn Von Gonten in the Santa Fe Office.

Thank you,

Mike Bratcher
NMOCD District 2
1301 W. Grand Ave.
Artesia, NM 88210
(505) 748-1283 Ext. 108
(505) 626-0857
mike.bratcher@state.nm.us

From: jerry brian [mailto:jrbrian@verizon.net]
Sent: Thursday, September 27, 2007 7:31 AM
To: Bratcher, Mike, EMNRD
Cc: Logan Anderson; Tina Spangler; Rob Elam; Mike Waygood
Subject: Elke Environmental - Bass Enterprises-Big Eddy # 151

Hi Mike,

Just an email to confirm that we obtained verbal approval from you on the 9/26/07 to:

1. excavate and remove all impacted material exceeding 5000 ppm chlorides
2. blend all impacted material to 5000 ppm
3. fill excavated area with blended material
4. cap entire pit area with a 20 ml liner
5. cover with approximately 3' of soil like material

As per our discussion, this will allow us to immediately prevent further groundwater impact from the open pit area.

This will be followed immediately with a remedial investigation work plan / stage I abatement plan to be submitted to Glen in Santa Fe.

Thanks,
Jerry Brian - REM, REPA
Geologist

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Thursday, September 27, 2007 9:13 AM
To: Price, Wayne, EMNRD
Subject: RE: Elke Environmental - Bass Enterprises-Big Eddy # 151

OK. I will make the call right now. Thanks Wayne.

From: Price, Wayne, EMNRD
Sent: Thursday, September 27, 2007 9:08 AM
To: Bratcher, Mike, EMNRD; VonGonten, Glenn, EMNRD
Cc: Gum, Tim, EMNRD
Subject: RE: Elke Environmental - Bass Enterprises-Big Eddy # 151

Mike, please inform them OCD Environmental Bureau will handle this case. All work shall immediately stop until they submit a plan to us and we approve.

From: Bratcher, Mike, EMNRD
Sent: Thursday, September 27, 2007 8:49 AM
To: VonGonten, Glenn, EMNRD; Price, Wayne, EMNRD
Cc: Gum, Tim, EMNRD
Subject: FW: Elke Environmental - Bass Enterprises-Big Eddy # 151

Glenn,

Since this is a possible ground water impact incident, I wanted to copy you on it. The way I understand things out there, the only water samples done so far have been samples obtained from water influx in the pit, so we do not actually have confirmation of protectable water impact yet. You can see what they are proposing to prevent further migration and then I told them they would be required to investigate the water impact issue. I also told them that at some point down the road, they may be required to re-excavate and remove this material. And by the way, they did not receive verbal approval. We just discussed what they wanted to do. They have equipment on location and are wanting to move on it. What do you guys think?

Mike
505-748-1283 Ext. 108
505-626-0857

From: jerry brian [mailto:jrbrian@verizon.net]
Sent: Thursday, September 27, 2007 7:31 AM
To: Bratcher, Mike, EMNRD
Cc: Logan Anderson; Tina Spangler; Rob Elam; Mike Waygood
Subject: Elke Environmental - Bass Enterprises-Big Eddy # 151

Hi Mike,

Just an email to confirm that we obtained verbal approval from you on the 9/26/07 to:

1. excavate and remove all impacted material exceeding 5000 ppm chlorides
2. blend all impacted material to 5000 ppm

3. fill excavated area with blended material
4. cap entire pit area with a 20 ml liner
5. cover with approximately 3' of soil like material

As per our discussion, this will allow us to immediately prevent further groundwater impact from the open pit area.

This will be followed immediately with a remedial investigation work plan / stage I abatement plan to be submitted to Glen in Santa Fe.

Thanks,
Jerry Brian - REM, REPA
Geologist

To: Mike Bratcher
From John Good
3 pages

jerry brian

From: "VonGonten, Glenn, EMNRD" <Glenn.VonGonten@state.nm.us>
To: "jerry brian" <jrbrian@verizon.net>
Cc: "Price, Wayne, EMNRD" <wayne.price@state.nm.us>
Sent: Monday, September 17, 2007 4:09 PM
Subject: RE: Elke Environmental-Bass Enterprises-Big Eddy #151

Jerry,

I told Logan that that OCD did not have time to formally review the proposal and that Elke could proceed at risk with the understanding that additional work will probably be required.

Glenn

From: jerry brian [mailto:jrbrian@verizon.net]
Sent: Thursday, September 13, 2007 11:58 AM
To: VonGonten, Glenn, EMNRD
Cc: Tina Spangler; Rob Elam
Subject: Elke Environmental-Bass Enterprises-Big Eddy #151

HI Glenn,

I hope all is well with you.

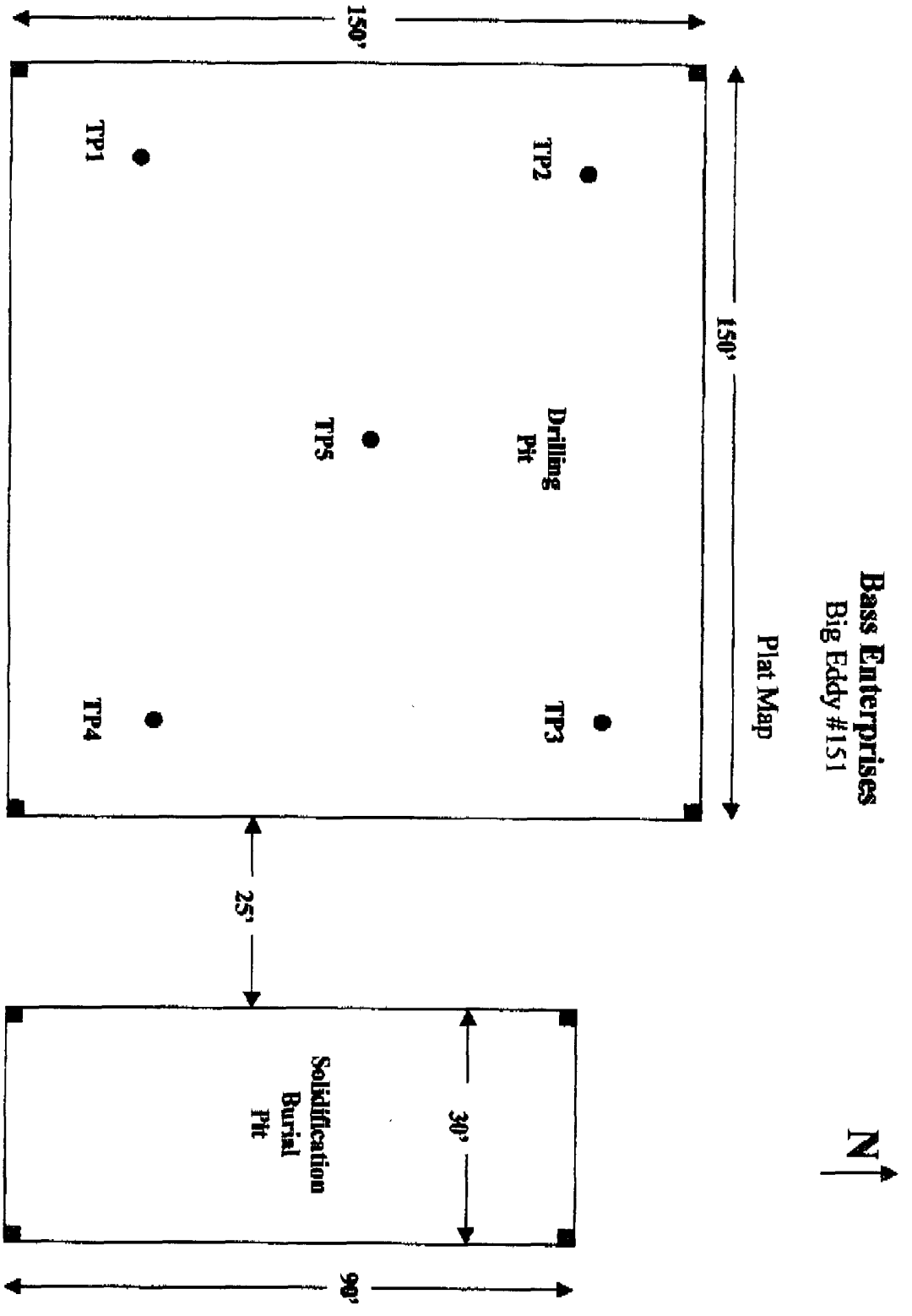
I have changed employment from Hungry Horse, LLC to Elke Environmental.

Glenn, Logan Anderson with Elke indicated to me that he had received verbal approval from you last week to cap and backfill the Big Eddy # 151 to eliminate additional potential chloride impact at this site.

I am needing to verify from you so that we can proceed immediately.

Your assistance would be greatly appreciated.

Thanks,
Jerry Brian-Geologist,REM,REPA
Office Manager-Hobbs Office
505-390-6149



Bass Enterprises
Big Eddy #151

Plat Map

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

Field Analytical Report Form

Client Bass Enterprises **Analyst** Kim Baker

Site Big Eddy #151

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP1	2-28-07	10'		397		32° 27' 15.5"N 104° 07' 16.5"W
TP1	2-28-07	12'		88	9.9	32° 27' 15.5"N 104° 07' 16.5"W
TP2	2-28-07	10'		5,769		32° 27' 16.5"N 104° 07' 16.7"W
TP2	2-28-07	12'		2,944		32° 27' 16.5"N 104° 07' 16.7"W
TP2	2-28-07	14'		237	4.5	32° 27' 16.5"N 104° 07' 16.7"W
TP3	2-28-07	10'		214	3.7	32° 27' 15.1"N 104° 07' 14.9"W
TP4	2-28-07	10'		246	5.5	32° 27' 16.6"N 104° 07' 15.0"W
TP5	2-28-07	10'		8,974		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	12'		10,200		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	14'		12,045		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	16'		9,800		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	18'		5,320		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	20'		3,014		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	22'		2,600		32° 27' 16.1"N 104° 07' 15.7"W

Notes TP5 @22' was a field chloride analysis in water.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

COPY FROM WELL FILE

RECEIVED
MAY 30 2006
OCD-ARTESIA

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: BEPCO, L. P. Telephone. (432)683-2277 e-mail address. machilders@basspet.com
Address: P. O. Box 2760 - Midland, Texas 79702
Facility or well name. Big Eddy Unit #151 API#: 30-015-33157 U/lor Qtr/Qtr H Sec 30 T 21S R 28E
County: Eddy Latitude 32.453972 Longitude 104.120750 NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 7300 bbl	Volume: ____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	0

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**
Date: 05/25/2006
Printed Name/Title Annette Childers - Administrative Assistant Signature Annette Childers

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations

Approval:
Printed Name/Title Gerry Guye Deputy Field Inspector District II - Artesia
Signature Gerry Guye
Date JUN 1 - 2006

USGS information shows this area to be water sensitive.

As a condition of approval, a closure plan must be submitted and approved prior to the commencement of closure procedures.

New Mexico Office of the State Engineer

COPY FROM WELL FILE **POD Reports and Downloads**

Township: 21S Range: 28E Sections: 32,20,19,31,29

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) Non-Domestic Domestic All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 05/25/2006

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet) Min	Max	Avg

No Records found, try again

New Mexico Office of the State Engineer
POD Reports and Downloads COPY FROM WELL FILE

Township: 21S Range: 27E Sections: 36,24,25

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ○ Non-Domestic ○ Domestic
◉ All

POD / Surface Data Report | Avg Depth to Water Report | Water Column Report

Clear Form | iWATERS Menu | Help

AVERAGE DEPTH OF WATER REPORT 05/25/2006

							(Depth Water in Feet)		
Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	Min	Max	Avg
C	21S	27E	24				2	17	21	19
C	21S	27E	25				6	5	178	67

Record Count: 8

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

COPY FROM WELL FILE

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office. 2006
For downstream facilities, submit to Santa Fe office

RECEIVED
OCD - ARTESIA

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: BEPCO, L.P. Telephone: (432)683-2277 e-mail address: cdgoodman@basspet.com
Address: P.O. BOX 2760 MIDLAND, TX 79702-2760
Facility or well name: BIG EDDY UNIT #151 API#: 30-015-33157 U/lor Qtr/Qtr H Sec 30 T 21S R 28E
County: EDDY Latitude 32.453972 Longitude 104.120750 NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 7300 bbl	Volume: ____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	20

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☒ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

Excess water will be removed from the pit. A burial pit will be constructed and lined with 12 mil impervious liner. The drilling pit contents will be mixed with Elke Envionmental Solidification Product at a 20 mud to 1 product ratio to solidify the contents after being placed in the burial pit. After all contents are placed in the burial pit, the contents will be covered with a 20 mil impervious liner with a minimum of 3 ft. overlap on all sides and a minimum of 3 ft below ground level. The burial pit will then be covered with clean native soil and domed to prevent pooling. A final report will be given at the end of the job. Notice will be given 48 hrs before start of job.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☒.**
Date: 10/02/2006
Printed Name/Title CINDI GOODMAN PRODUCTION CLERK Signature Cindi Goodman

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title District II Supervisor Signature James W. Gum Date: 10/5/06

As a condition of approval if during pit construction water is encountered or if water seeps in pits after construction the **OCD MUST BE CONTACTED IMMEDIATELY!**

Elke Environmental, Inc.

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

May 10, 2007

New Mexico Oil Conservation Division
Mr. Tim Gum
1301 West Grand Ave.
Artesia, New Mexico 88210

Re: Drilling Pit of Bass Enterprises – Big Eddy #151

Mr. Tim Gum,

Enclosed is a copy of the data sent to Sante Fe NMOCD for this drilling pit. The contamination under the drilling pit hit groundwater so the drilling pit is still open. The burial pit for the solidified mud has been capped with a 20 mil liner and backfilled as per the C-144. If you have any questions about the enclosed report please contact me at the office.

Sincerely,

Logan Anderson

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company – Bass Enterprises	Contact – Micheal Lyon
Address – P O Box 2760 Midland, TX 79702	Telephone No. – 432-683-2277
Facility Name – Big Eddy #151	Facility Type – Drilling Pit

Surface Owner - Federal	Mineral Owner -	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	30	21S	28E					Eddy

Latitude 32-27-16.1N **Longitude** 104-07-15.7W

NATURE OF RELEASE

Type of Release – Drilling Mud Fluids	Volume of Release ?	Volume Recovered – None
Source of Release – Drilling Pit	Date and Hour of Occurrence ?	Date and Hour of Discovery-2-28-07 11AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Artesia NMOCD Tim Gum 2-28-07 11:33AM Sante Fe NMOCD Glenn Von Gonten 2-28-07 1:33PM	
By Whom? Kim Baker – Elke Environmental	Date and Hour 2-28-07	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. ?	

If a Watercourse was Impacted, Describe Fully.* Drilling mud was hauled to Solidified onsite and buried per approved C-144. After mud was removed a vertical delineation was performed with a trackhoe, and soil was sampled every 2'. Bottom of the drilling pit is 10' below ground surface. Water was reached at 22' and the mud/water tested above standards.

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

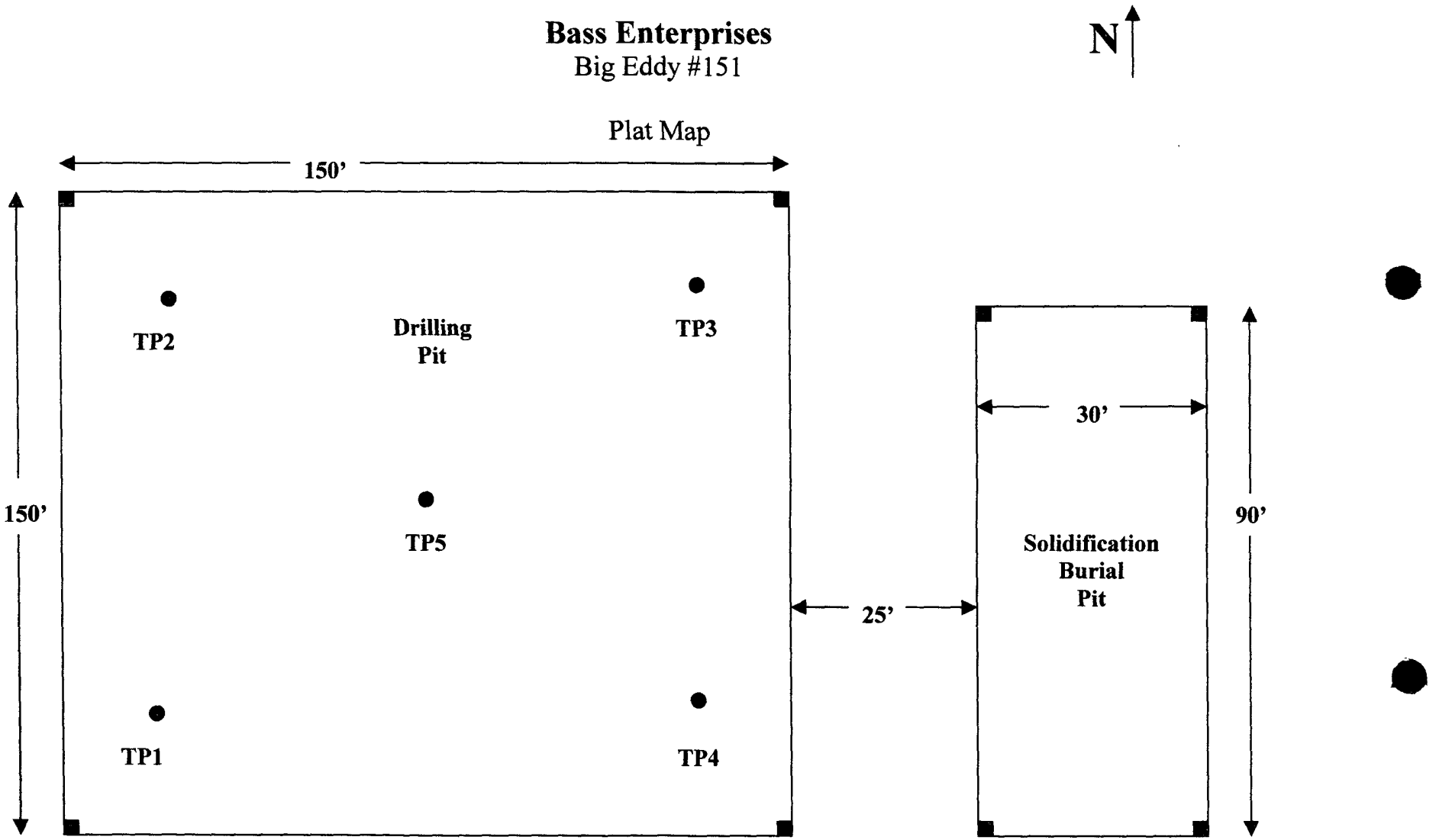
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Logan Anderson	Approved by District Supervisor:	
Title: Agent / Elke Environmental	Approval Date:	Expiration Date:
E-mail Address: la_elkeenv@yahoo.com	Conditions of Approval:	Attached ☐
Date: 5-10-07 Phone: 432-366-0043		

* Attach Additional Sheets If Necessary

Bass Enterprises
Big Eddy #151

Plat Map



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

Field Analytical Report Form

Client Bass Enterprises **Analyst** Kim Baker

Site Big Eddy #151

Sample ID	Date	Depth	TPH / PPM	Cl / PPM	PID / PPM	GPS
TP1	2-28-07	10'		397		32° 27' 15.5"N 104° 07' 16.5"W
TP1	2-28-07	12'		88	9.9	32° 27' 15.5"N 104° 07' 16.5"W
TP2	2-28-07	10'		5,769		32° 27' 16.5"N 104° 07' 16.7"W
TP2	2-28-07	12'		2,944		32° 27' 16.5"N 104° 07' 16.7"W
TP2	2-28-07	14'		237	4.5	32° 27' 16.5"N 104° 07' 16.7"W
TP3	2-28-07	10'		214	3.7	32° 27' 15.1"N 104° 07' 14.9"W
TP4	2-28-07	10'		246	5.5	32° 27' 16.6"N 104° 07' 15.0"W
TP5	2-28-07	10'		8,974		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	12'		10,200		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	14'		12,045		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	16'		9,800		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	18'		5,320		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	20'		3,014		32° 27' 16.1"N 104° 07' 15.7"W
TP5	2-28-07	22'		2,600		32° 27' 16.1"N 104° 07' 15.7"W

Notes TP5 @22' was a field chloride analysis in water.

ENVIRONMENTAL LAB OF
12600 West I-20 East - Odessa, Texas 79765
A Xenco Laboratories Company

Analytical Report

Prepared for:

Kim Baker

Elke Environmental

P.O. Box 14167

Odessa, TX 79768

Project: Big Eddy #151

Project Number: None Given

Location: Bass Enterprise

Lab Order Number: 7C01007

Report Date: 03/13/07

Elke Environmental	Project Big Eddy #151	Fax. (432) 366-0884
P O Box 14167	Project Number None Given	
Odessa TX, 79768	Project Manager Kim Baker	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP1@ 12'	7C01007-01	Soil	02/28/07 07:00	03-01-2007 13:15
TP2@ 14'	7C01007-02	Soil	02/28/07 08:00	03-01-2007 13:15
TP3@ 10'	7C01007-03	Soil	02/28/07 09:00	03-01-2007 13:15
TP4@ 10'	7C01007-04	Soil	02/28/07 10:00	03-01-2007 13:15

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Elke Environmental	Project Big Eddy #151	Fax (432) 366-0884
P O. Box 14167	Project Number None Given	
Odessa TX, 79768	Project Manager Kim Baker	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP1@ 12' (7C01007-01) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70206	03/02/07	03/07/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10 0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10 0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*94.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*102 %*	*70-130*		"	"	"	"	
TP2@ 14' (7C01007-02) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70206	03/02/07	03/05/07	EPA 8015M	
Carbon Ranges C12-C28	**15.5**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**15.5**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*93.0 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*103 %*	*70-130*		"	"	"	"	
TP3@ 10' (7C01007-03) Soil									
Carbon Ranges C6-C12	ND	10.0	mg/kg dry	1	EC70206	03/02/07	03/05/07	EPA 8015M	
Carbon Ranges C12-C28	ND	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	ND	10 0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*95.4 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*100 %*	*70-130*		"	"	"	"	
TP4@ 10' (7C01007-04) Soil									
Carbon Ranges C6-C12	**20.8**	10 0	mg/kg dry	1	EC70206	03/02/07	03/05/07	EPA 8015M	
Carbon Ranges C12-C28	**31.1**	10.0	"	"	"	"	"	"	
Carbon Ranges C28-C35	ND	10.0	"	"	"	"	"	"	
Total Hydrocarbons	**51.9**	10.0	"	"	"	"	"	"	
Surrogate: 1-Chlorooctane		*97.6 %*	*70-130*		"	"	"	"	
Surrogate: 1-Chlorooctadecane		*110 %*	*70-130*		"	"	"	"	

Elke Environmental	Project: Big Eddy #151	Fax (432) 366-0884
P O Box 14167	Project Number: None Given	
Odessa TX, 79768	Project Manager: Kim Baker	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TP1@ 12' (7C01007-01) Soil									
Chloride	**J [5.25]**	20.0	mg/kg	40	EC70501	03/02/07	03/03/07	EPA 300.0	J
% Moisture	**20.3**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	
TP2@ 14' (7C01007-02) Soil									
Chloride	**83.4**	20.0	mg/kg	40	EC70501	03/02/07	03/03/07	EPA 300.0	
% Moisture	**16.4**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	
TP3@ 10' (7C01007-03) Soil									
Chloride	**28.1**	20.0	mg/kg	40	EC70501	03/02/07	03/03/07	EPA 300.0	
% Moisture	**21.8**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	
TP4@ 10' (7C01007-04) Soil									
Chloride	**266**	25 0	mg/kg	50	EC70501	03/02/07	03/03/07	EPA 300.0	
% Moisture	**21.5**	0.1	%	1	EC70205	03/01/07	03/01/07	% calculation	

Elke Environmental	Project: Big Eddy #151	Fax: (432) 366-0884
P O Box 14167	Project Number: None Given	
Odessa TX, 79768	Project Manager: Kim Baker	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70206 - Solvent Extraction (GC)										
Blank (EC70206-BLK1)				Prepared & Analyzed: 03/02/07						
Carbon Ranges C6-C12	ND	10.0	mg/kg wet							
Carbon Ranges C12-C28	ND	10.0	"							
Carbon Ranges C28-C35	ND	10.0	"							
Total Hydrocarbons	ND	10.0	"							
Surrogate: 1-Chlorooctane	*53.5*		*mg/kg*	*50.0*		*107*	*70-130*			
Surrogate: 1-Chlorooctadecane	*63.4*		*"*	*50.0*		*127*	*70-130*			
LCS (EC70206-BS1)				Prepared & Analyzed: 03/02/07						
Carbon Ranges C6-C12	603	10.0	mg/kg wet	500		121	75-125			
Carbon Ranges C12-C28	512	10.0	"	500		102	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00			75-125			
Total Hydrocarbons	1120	10.0	"	1000		112	75-125			
Surrogate: 1-Chlorooctane	*63.5*		*mg/kg*	*50.0*		*127*	*70-130*			
Surrogate: 1-Chlorooctadecane	*62.6*		*"*	*50.0*		*125*	*70-130*			
Calibration Check (EC70206-CCV1)				Prepared: 03/02/07 Analyzed: 03/05/07						
Carbon Ranges C6-C12	221		mg/kg	250		88.4	80-120			
Carbon Ranges C12-C28	235		"	250		94.0	80-120			
Total Hydrocarbons	455		"	500		91.0	80-120			
Surrogate: 1-Chlorooctane	*57.2*		*"*	*50.0*		*114*	*70-130*			
Surrogate: 1-Chlorooctadecane	*56.6*		*"*	*50.0*		*113*	*70-130*			
Matrix Spike (EC70206-MS1)	**Source: 7C01016-02**			Prepared: 03/02/07 Analyzed: 03/06/07						
Carbon Ranges C6-C12	734	10.0	mg/kg dry	568	ND	129	75-125			M1
Carbon Ranges C12-C28	626	10.0	"	568	ND	110	75-125			
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125			
Total Hydrocarbons	1360	10.0	"	1140	ND	119	75-125			
Surrogate: 1-Chlorooctane	*56.2*		*mg/kg*	*50.0*		*112*	*70-130*			
Surrogate: 1-Chlorooctadecane	*57.6*		*"*	*50.0*		*115*	*70-130*			

Elke Environmental	Project: Big Eddy #151	Fax (432) 366-0884
P O. Box 14167	Project Number: None Given	
Odessa TX, 79768	Project Manager: Kim Baker	

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70206 - Solvent Extraction (GC)										
Matrix Spike Dup (EC70206-MSD1)	**Source: 7C01016-02**			Prepared 03/02/07 Analyzed. 03/06/07						
Carbon Ranges C6-C12	731	10 0	mg/kg dry	568	ND	129	75-125	0.00	20	M1
Carbon Ranges C12-C28	616	10.0	"	568	ND	108	75-125	1.83	20	
Carbon Ranges C28-C35	ND	10.0	"	0.00	ND		75-125		20	
Total Hydrocarbons	1350	10.0	"	1140	ND	118	75-125	0 844	20	
Surrogate: 1-Chlorooctane	*52 3*		*mg/kg*	*50.0*		*105*	*70-130*			
Surrogate: 1-Chlorooctadecane	*57.0*		*"*	*50.0*		*114*	*70-130*			

Elke Environmental	Project: Big Eddy #151	Fax: (432) 366-0884
P O Box 14167	Project Number None Given	
Odessa TX, 79768	Project Manager Kim Baker	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70205 - General Preparation (Prep)										
Blank (EC70205-BLK1)				Prepared & Analyzed: 03/01/07						
% Solids	100		%							
Duplicate (EC70205-DUP1)		**Source: 7C01001-01**		Prepared & Analyzed: 03/01/07						
% Solids	55.2		%		52.4			5.20	20	
Duplicate (EC70205-DUP2)		**Source: 7C01019-04**		Prepared & Analyzed: 03/01/07						
% Solids	89.4		%		88.9			0.561	20	
Duplicate (EC70205-DUP3)		**Source: 7C01018-05**		Prepared & Analyzed: 03/01/07						
% Moisture	12.6	0.1	%		14.6			14.7	20	
Batch EC70501 - General Preparation (WetChem)										
Blank (EC70501-BLK1)				Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	ND	0.500	mg/kg							
LCS (EC70501-BS1)				Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	10.8	0.500	mg/kg	10.0		108	80-120			
Calibration Check (EC70501-CCV1)				Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	9.59		mg/kg	10.0		95.9	80-120			
Duplicate (EC70501-DUP1)		**Source: 7B28001-01**		Prepared: 03/02/07 Analyzed: 03/03/07						
Chloride	304	10.0	mg/kg		304			0.00	20	
Duplicate (EC70501-DUP2)		**Source: 7C01016-01**		Prepared 03/02/07 Analyzed: 03/03/07						
Chloride	154	10.0	mg/kg		157			1.93	20	

Elke Environmental	Project: Big Eddy #151	Fax: (432) 366-0884
P O Box 14167	Project Number: None Given	
Odessa TX, 79768	Project Manager: Kim Baker	

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EC70501 - General Preparation (WetChem)										
Matrix Spike (EC70501-MS1)	**Source: 7B28001-01**			Prepared: 03/02/07 Analyzed 03/03/07						
Chloride	538	10 0	mg/kg	200	304	117	80-120			
Matrix Spike (EC70501-MS2)	**Source: 7C01016-01**			Prepared 03/02/07 Analyzed: 03/03/07						
Chloride	661	10 0	mg/kg	200	157	252	80-120			M1

Elke Environmental	Project: Big Eddy #151	Fax (432) 366-0884
P.O. Box 14167	Project Number: None Given	
Odessa TX, 79768	Project Manager: Kim Baker	

Notes and Definitions

M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS)
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: _____ Date: 3/13/2007

Brent Barron, Laboratory Director/Corp. Technical Director
Celey D. Keene, Org. Tech Director
Raland K. Tuttle, Laboratory Consultant

James Mathis, QA/QC Officer
Jeanne Mc Murrey, Inorg. Tech Director

Environmental Lab of Texas I, Ltd.

600 West I-20 East
Odessa, Texas 79763
Phone 915-563-1800
Fax: 915-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kim Baker 557-5654
Company Name: Eike Environmental, Inc
Company Address: P O Box 14167
City/State/Zip: Odessa Tx 79768
Telephone No: 432-366-0043
Fax No. 432-366-0884
Sampler Signature: [signature]

Project Name: BIG LADY #1
Project #:
Project Loc: BASS ENTERPRISES
PO #:

(lab use only)
ORDER #: 00000

LAB #	FIELD CODE 3/1/07	Date Sampled	Time Sampled	No. of Containers	Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Water	Sludge	Soil	Other (specify)	TPH 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	NORM	TDS/TSS				RUSH TAT (Pre-Schedule)	Standard TAT
-01	TP1 @ 2' per Kim	2-28-07	7:00AM	1	X									X		X		X													X
-02	TP2 @ 14'	2-28-07	8:00AM	1	X									X		X		X													X
-03	TP3 @ 10'	2-28-07	9:00AM	1	X									X		X		X													X
-04	TP4 @ 10'	2-28-07	10:00AM	1	X									X		X		X													X

Special Instructions:

Relinquished by	Date	Time	Received by	Date	Time
[signature]	3/1/07	1:15			
Relinquished by	Date	Time	Received by ELOT	Date	Time
			[signature]	[illegible]	[illegible]

Sample Containers Intact? (Y) N
Temperature Upon Receipt:
Laboratory Comments:
[illegible]
6 C

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Elke Env.

Date/ Time: 3/1/07 12:15

Lab ID #: 7B01009

Initials: CK

Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	Yes	No	4.0 °C	
#2 Shipping container in good condition?	Yes (circled)	No		
#3 Custody Seals intact on shipping container/ cooler?	Yes (circled)	No	Not Present	
#4 Custody Seals intact on sample bottles/ container?	Yes (circled)	No	Not Present	
#5 Chain of Custody present?	Yes (circled)	No		
#6 Sample instructions complete of Chain of Custody?	Yes (circled)	No		
#7 Chain of Custody signed when relinquished/ received?	Yes (circled)	No		
#8 Chain of Custody agrees with sample label(s)?	Yes (circled)	No	ID written on Cont / Lid	
#9 Container label(s) legible and intact?	Yes (circled)	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	Yes (circled)	No		
#11 Containers supplied by ELOT?	Yes (circled)	No		
#12 Samples in proper container/ bottle?	Yes (circled)	No	See Below	
#13 Samples properly preserved?	Yes (circled)	No	See Below	
#14 Sample bottles intact?	Yes (circled)	No		
#15 Preservations documented on Chain of Custody?	Yes (circled)	No		
#16 Containers documented on Chain of Custody?	Yes (circled)	No		
#17 Sufficient sample amount for indicated test(s)?	Yes (circled)	No	See Below	
#18 All samples received within sufficient hold time?	Yes (circled)	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	Not Applicable (circled)	
#20 VOC samples have zero headspace?	Yes (circled)	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