TALON
"All the Pieces"

AMARILLO
52, North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

AUSTIN
3003 Tom Gary Cove
Building C-100
Round Rock, Texas 78664
Phone 512.989.3429
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MIDLAND
#9 East Industrial Loop
Midland, Texas 79701
Phone 432.522.2133
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NEW BRAUNFELS
707 N. Walnut Ave.
Suite 203
New Braunfels, Texas 78130
Phone 210.629.0235
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9506 East 43st Street, Ste. G
Tulsa, OK 74146
Phone 918.742.0271
Fax 918.742.0876

HOBBS
312 East Taylor Street
Hobbs, New Mexico 88240
Phone 505.393.4201
Fax 505.393.4658

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
EMERGENCY RESPONSE

Toll Free: 866.742.0742
www.talonlpe.com

October 27,2008

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Paul Kautz
New Mexico Oil Conservation Division
District 1 office
1625 French Dr.
Hobbs, New Mexico 88240

RE: **Request for closure of the Paloma 28 State Com #2 pit.**

In September of 2008, Talon/LPE was contracted by the Mewbourne Oil Company to perform the pit closure activities at the Paloma 28 State Com #2, API# 30-025-38908, Unit M Sec 28-T20S-R36E, in Lea county New Mexico. The C-144 for this pit closure was submitted to Paul Kautz and approved on September 15, 2008.

Talon/LPE mixed all drill cuttings from the reserve pit at a ratio not more than 3:1 to stabilize the soil in preparation for trench burial. The drill cuttings were mixed on the west side of the pit. Upon completion of mixing the drill cuttings, Eb Taylor with Talon/LPE called Paul Kautz to notify him of the planed sampling of the east pit floor and drill cuttings. On September 27, 2008 Talon/LPE collected two five point composite samples of the pit floor and one five point composite sample from the drill cuttings. The samples were sent to Trace Analysis and analyzed in compliance with 19.15.17.13NMAC for official analytical results. When analytical results were reviewed, it was determined that the drill cuttings could be buried on site (see attached analytical). Talon/LPE excavated a burial cell in the east side of the reserve pit approximately 150'x40'x20', and lined it with a 20 mil liner. Once the drill cuttings were placed in the burial cell, a 20 mil cap was placed on top to seal the burial cell. On October 9, 2008 Eb Taylor with Talon/LPE collected two five point composite samples from the west pit floor and sent them to Trace Analysis to be analyzed in compliance with 19.15.17.13 NMAC for official analytical (see attached analytical). The area was backfilled and contoured to the surrounding area. The area was seeded with Homesteaders Choice seed mix.

No deed amendment is required for this closure due to the fact the this is state land, Mewbourne Oil Company will place the burial marker at 32° 32.308 N 103° 21.984 W.

After review of attached documents and analysis by the NMOCD, Talon/LPE, and Mewbourne Oil Company we are requesting that this pit be considered properly closed.

Sincerely,

Eb Taylor
New Mexico Division Manager
Talon/LPE

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: MEWBOURNE OIL COMPANY OGRID #: 14744
Address: PO BOX 5270; HOBBS, NEW MEXICO 88241
Facility or well name: PALOMA 28 STATE COM #2
API Number: 30-025-38908 OCD Permit Number: P1-00231
U/L or Qtr/Qtr M Section 28 Township 20 S Range 36 E County: LEA
Center of Proposed Design: Latitude N32° 32' 19" Longitude W103° 21' 55" 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
WATER 150+/-
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☐ Welded ☒ Factory ☐ Other Volume: 14400 bbl Dimensions: L 120 x W 100 x D 8

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

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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.

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): CHARLES MARTIN Title: Engineer

Signature: Charles L. Martin Date: 9/15/2008

e-mail address: cmartin@mewbourne.com Telephone: (575) 393-5905

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

OCD Representative Signature: [signature] **Approval Date:** 9/15/08

Title: Geologist **OCD Permit Number:** P1-00231

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:** 10/29/08

22.
Closure Method:

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

☐ If different from approved plan, please explain.

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

Instructions: Please 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) N/A

☒ 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 32° 32.308 N Longitude 103° 21.984 W 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): Charles Martin Title: Engineer

Signature: Charles L. Martin Date: 12-17-08

e-mail address: CMartin@mewbourne.com Telephone: (575) 393-5905

September 15, 2008

NMOCD District 2 Office
1301 W. Grand
Artesia, New Mexico 88210

RE: **Paloma 28 State Com #2** – Temporary Pit Closure Request
API: 30-025-38908
Unit M Sec 28–T20S-R36E

Site Ranking Score: 0
Depth to Ground Water: 150'
100 Year Flood Plain: No
Potash Area: No per R-111P

Surface Owner: State of New Mexico
Analytical Testing: Chlorides, BTEX, TPH, GRO, DRO
Primary Land Use: Ranching and Oil & Gas Production

Pursuant to Rule 19.15.17.10 NMAC (a/k/a Pit Rule 17) of the New Mexico Oil Conservation District of the State of New Mexico regulatory requirement for temporary pit closure, please accept the following documentation for request of final closure of the temporary pit for the aforementioned location.

Talon/LPE (Talon) has been contracted by Mewbourne Oil Company (Mewbourne) to perform pit closure activities on the aforementioned location. Talon/LPE and Mewbourne wishes to purpose the following hybrid closure procedure for the aforementioned temporary pit.

- **Burial Trench:** In compliance with 19.15.17.13 NMAC, Talon will stiffen the "reef" area to a 3:1 ratio and place in a lined 20mil In-situ burial cell with approximate dimensions of 150x40x20. A 20mil "lid" will be placed on top of the burial cell to seal in the impacted material. Upon excavation of the "reef" all applicable soil testing will be performed pursuant to Pit Rule 17 to verify the limits, which have been set by the NMOCD, have been obtained. A copy of the analytical data will be attached to the Final Report. (**Note:** If the burial contents from the reef area are not at or below the required Chloride and TPH levels, this area will then be transported to Lea Land Disposal Facility, Permit No. WM-1-035.)

- **Sampling Plan:** In compliance with Subsection F of 19.15.17.13 NMAC a five point composite sample will be taken from the floor of the excavation and the burial contents. The samples will be sent Trace Analysis for official analytical results.

- **Soil Cover Design:** In compliance with Subsection H of 19.15.17.13 NMAC three foot of native material will be placed over the burial cell with one foot of top soil to ensure re-vegetation. The excavated pit area will be backfilled with native material and one foot of topsoil.

- **Re-vegetation Plan:** In compliance with Subsection I of 19.15.17.13 NMAC the area will be re-seeded to re-establish native vegetation. Will be reseeded with "Homesteaders Choice" seed mixture per surface owner request.

- **Site Reclamation Plan:** In compliance with Subsection I of 19.15.17.13 NMAC the impacted and disturbed area will be re-contoured to surrounding terrain.

- **Marker:** A marker will be placed per NMOCD guidelines with all required information permanently listed on it.

- **Deed:** In compliance with 19.15.17.13 NMAC a deed will be filed with the county clerk and an approved copy will be attached to the final report.

A copy of the Surface Owners Notification has been attached for documentation of compliance with Subsection F of 19.15.17.13 NMAC. A Topographical map and Satellite photo has been attached to verify that this location is not within any watercourse or wetlands area. Pursuant to Order R-111P, this area has also been cleared from the subsurface mining area. A copy of a Hydrological map has been attached as documentation for water depth and domestic/stock watering purposes. A copy of the FEMA 100-year Flood Plain map was not available for this area. Verbal verification has been obtained to verify this area is not within any municipal fresh water field.

Please review the attached documentation and you may contact Charles Martin of Mewbourne Oil Company at 575-441-2081 or Shelly J. Tucker of Talon/LPE at 575-706-7234 with any questions or concerns.

Sincerely,

Shelly J. Tucker
Project Manager
Talon/LPE

Attachments:

1. Surface Owner Notification letter
2. Diagram of burial cell
3. Diagram of temporary pit
4. Hydrogeologic Data (Water Map)
5. Topographical Map
6. Satellite Image

/sjt

Send To Printer | Back To TerraServer | Change to 11x17 Print Size | Remove Grid Lines | Change to Landscape

USGS 28 km SW of Hobbs, New Mexico, United States 01 Nov 1997

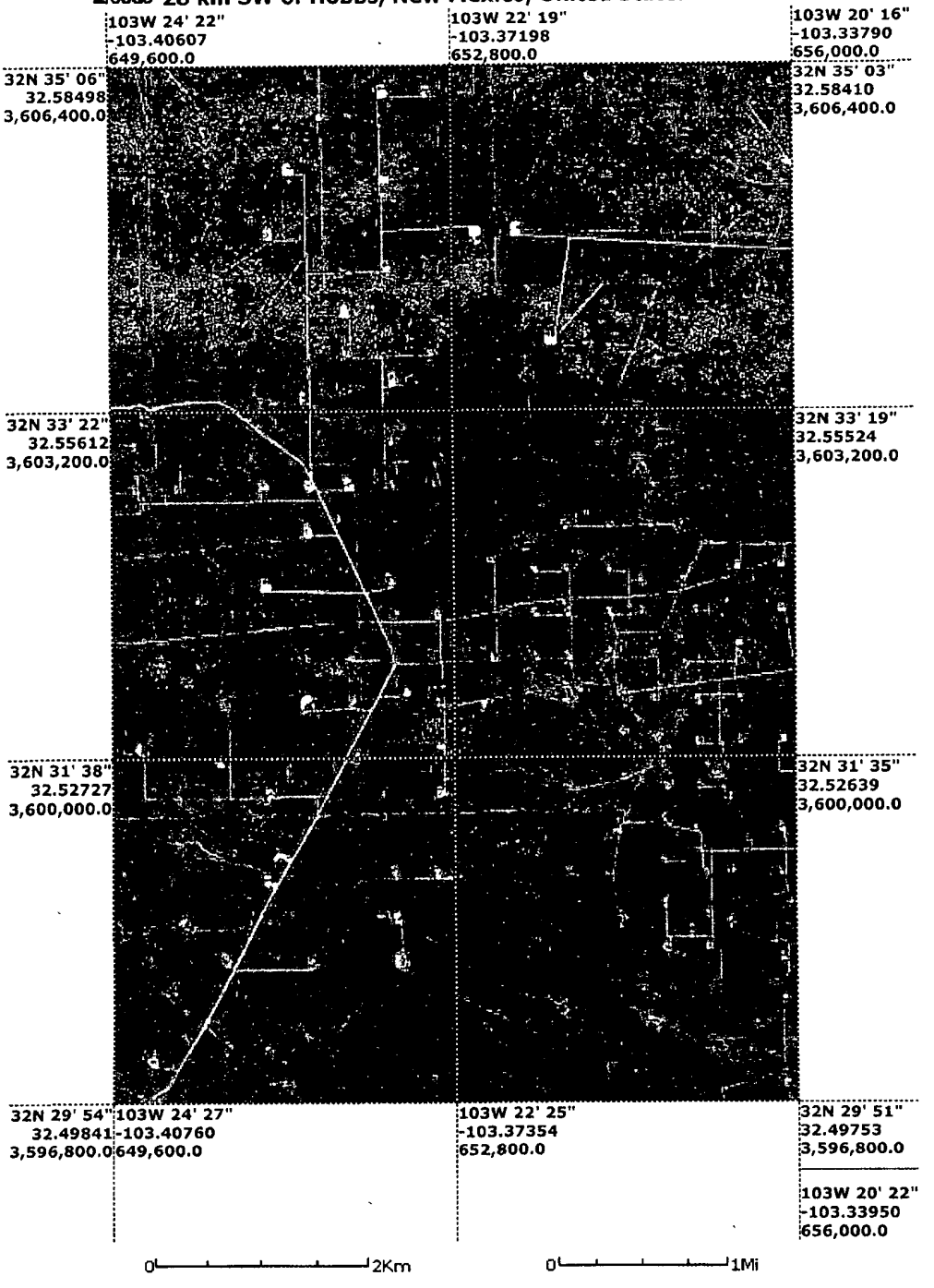
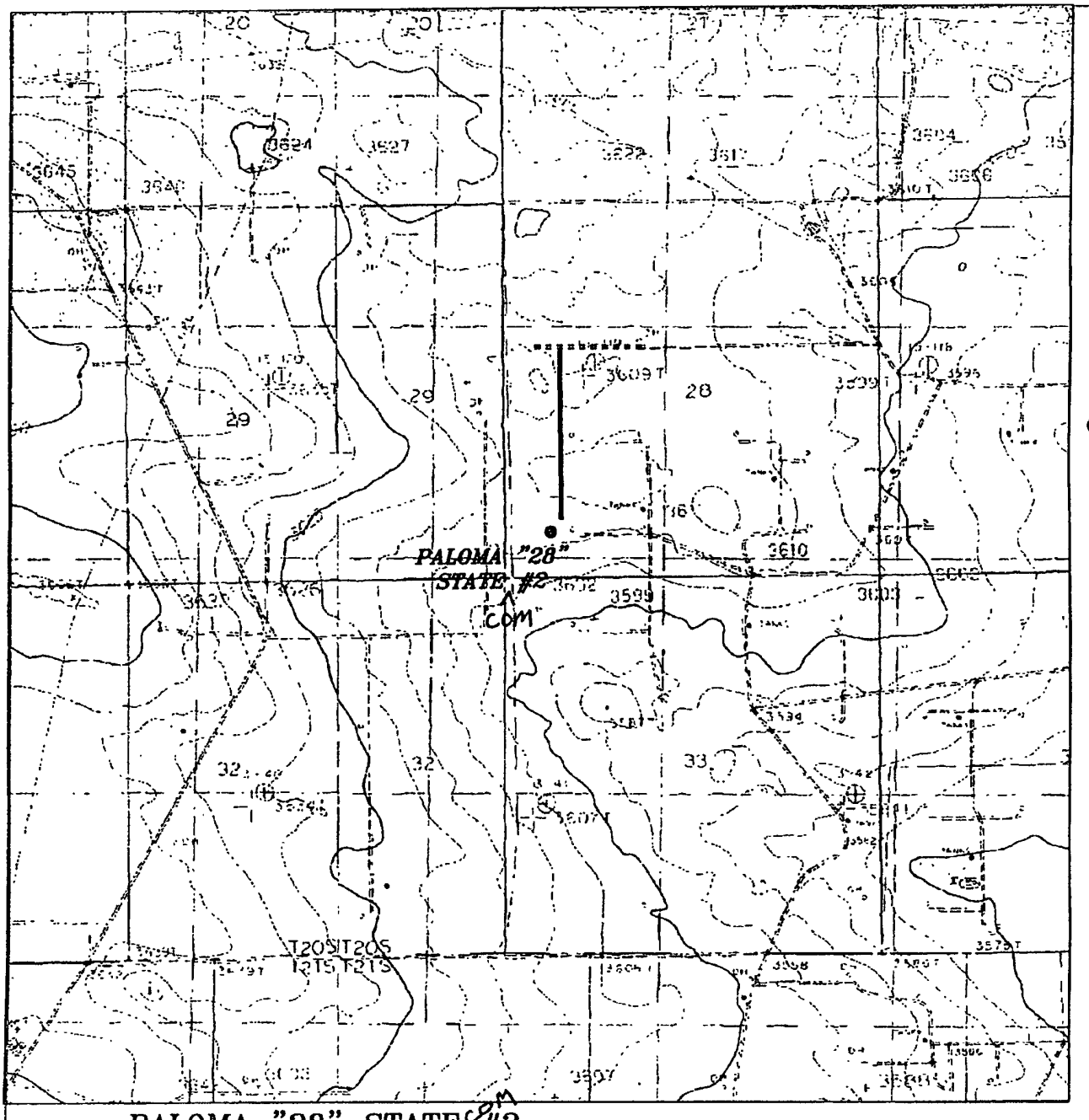


Image courtesy of the U.S. Geological Survey

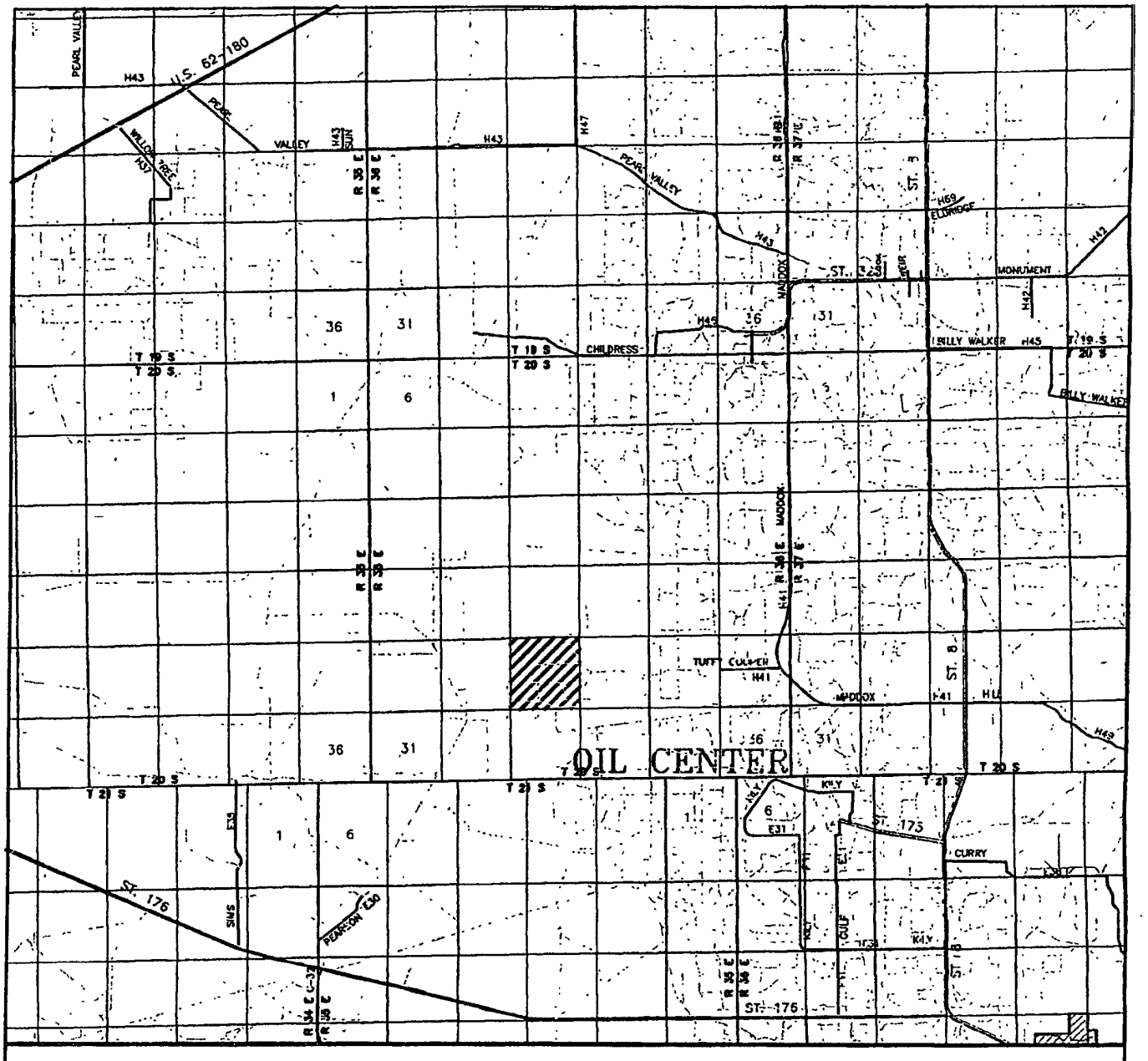


PALOMA "28" STATE COM #2
Located 660' FSL and 660' FWL
Section 28, Township 20 South, Range 36 East,
N.M.P.M., Lea County, New Mexico.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	19688 JMS
Survey Date:	05-14-2008
Scale:	1" = 2000'
Date:	05-15-2008

MEWBOURNE OIL CO.



PALOMA "28" STATE COM #2
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(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	19688 JMS
Survey Date:	05-14-2008
Scale:	1" = 2 MILES
Date:	05-15-2006

MEWBOURNE OIL CO.

FEMA Map Service Center

Product Catalog | Map Search | Quick Order | Digital Post Office | Help

Log on

Home > Product Catalog > FEMA Issued Flood Maps

FEMA Issued Flood Maps

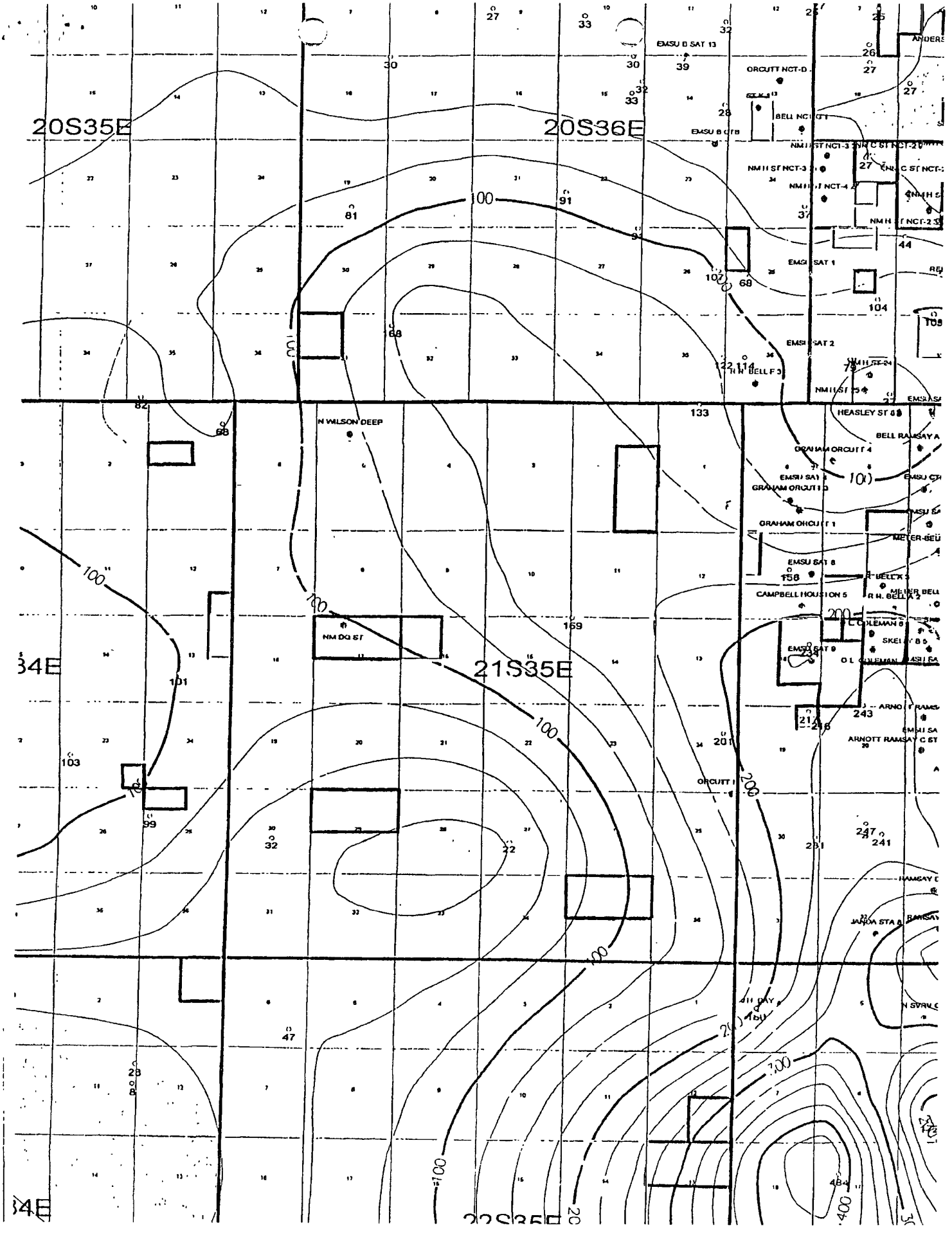
State : NEW MEXICO **County :** LEA COUNTY **Community :** LEA CO *

Sorry there are no items to display for this State, County and Community.

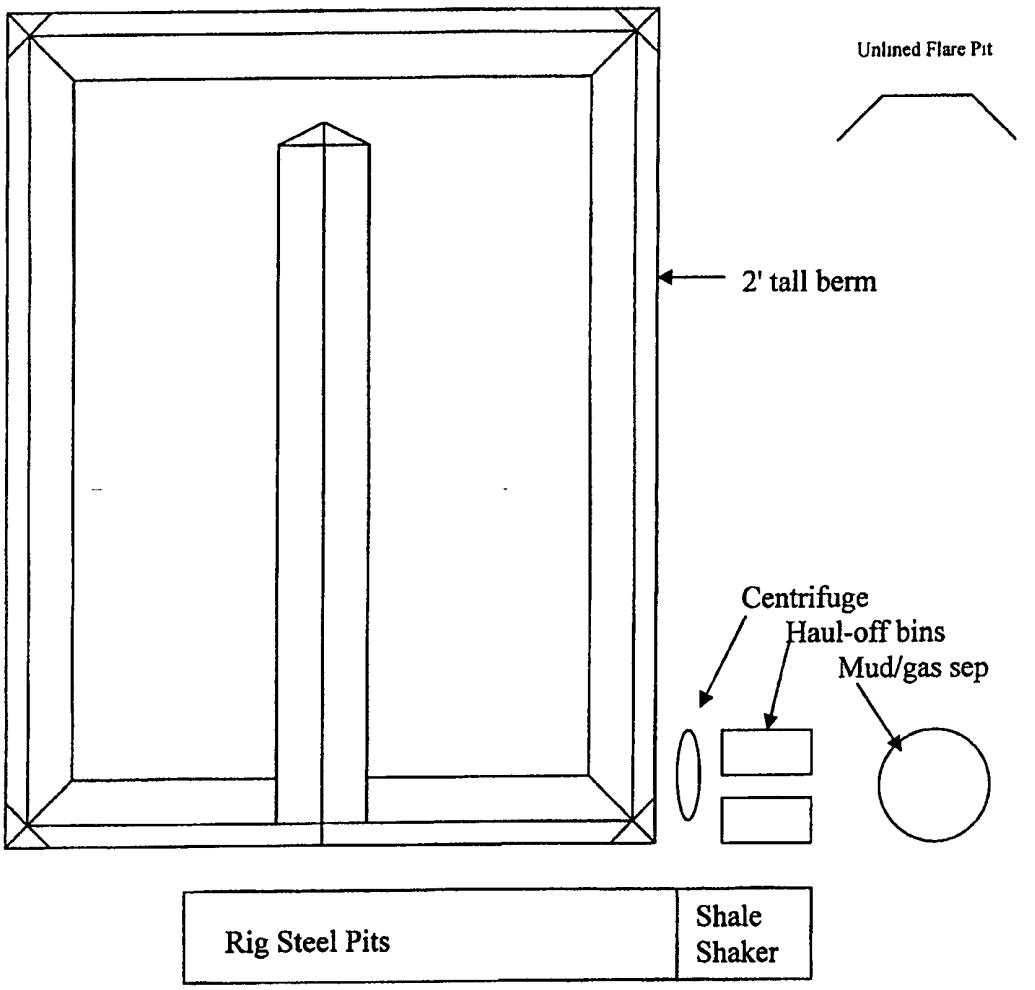
* designates unincorporated areas

FEMA Map Service Center, P.O. Box 1038 Jessup, Maryland 20794-1038 Phone: (800) 358-9616

Adobe Acrobat Reader required to view certain documents. Click here to download.


20S35E
20S36E
21S35E
22S35E
N WILSON DEEP
NM DQ ST
CAMPBELL HOUSTON 5
ORCUTT NCT-D
GRAHAM ORCUTT 4
GRAHAM ORCUTT 5
GRAHAM ORCUTT 1
EMSU SAT 8
EMSU SAT 1
EMSU SAT 2
EMSU B SAT 13
EMSU B CTB
BELL NCT-GT
NMH ST NCT-3
NMH ST NCT-4
NMH ST NCT-24
HEASLEY ST 8
BELL RAMSAY A
ARNOTT RAMSAY C ST
JARDA STA 8
100
200
300
400

Temporary Pit Design and Construction



Pit Dimensions:
Peak Width: 100'. Floor Width: 76'
Peak Length: 120' Floor Length: 96'
Floor is 6' below GL.
Center Berm is 6' above pit floor (peak is at ground level).
All walls are built with 2:1 slope.
Pit is fenced on 3 sides with barbed wire.
Pit is lined with 20 mil string reinforced LLDPE. Installed with 18" anchor trench.
Approximate volume including 2' freeboard: 14,400 bbl.

FILE COPY

MEWBOURNE OIL COMPANY
701 S. CECIL
PO BOX 5270
HOBBS, NM 88240
(575) 393-5905
(575) 397-6252 FAX

July 30, 2008

Commissioner Patrick H. Lyons
310 Old Santa Fe Trail
Santa Fe, NM 87504

Dear Mr. Lyons:

This letter is to inform the surface owner that the wells listed below will require a temporary pit to be constructed & closed, as required by the NMOCD, adjacent to the well site location.

Penlon Ranch 24 State #2
Unit Letter E
Sec 24, T20S, R27E
Eddy Co., NM

Paloma 28 State #2
Unit Letter M
Sec 28, T20S, R36E
Lea Co., NM

Thank you,

Charles Martin

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

State of New Mexico
P.O. Box 1148
Santa Fe, NM 87504-1148

Commissioner Patrick H. Lyons

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

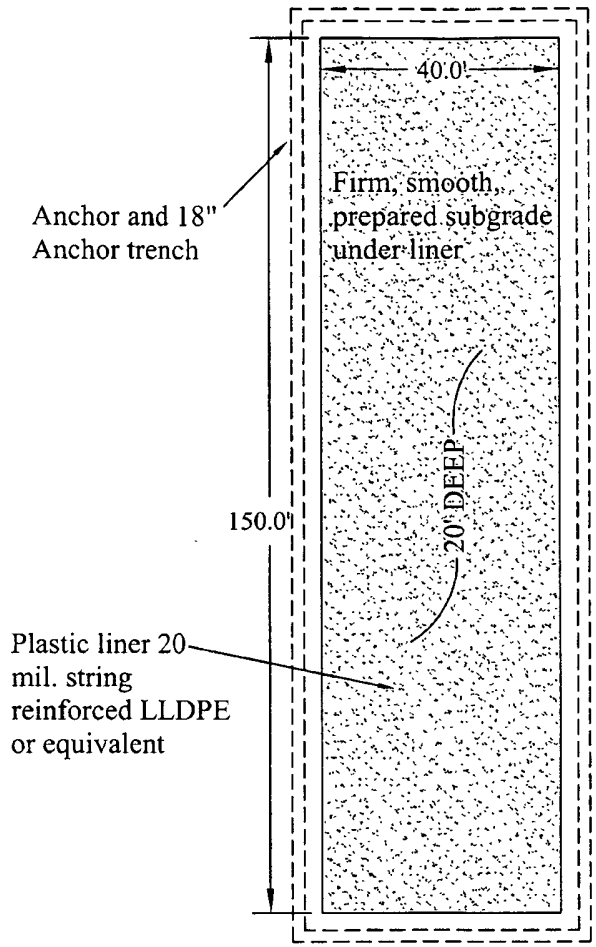
SANTA FE, NM AUG - 6 2008 USPS 87501

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7007 2560 0003 0324 9048

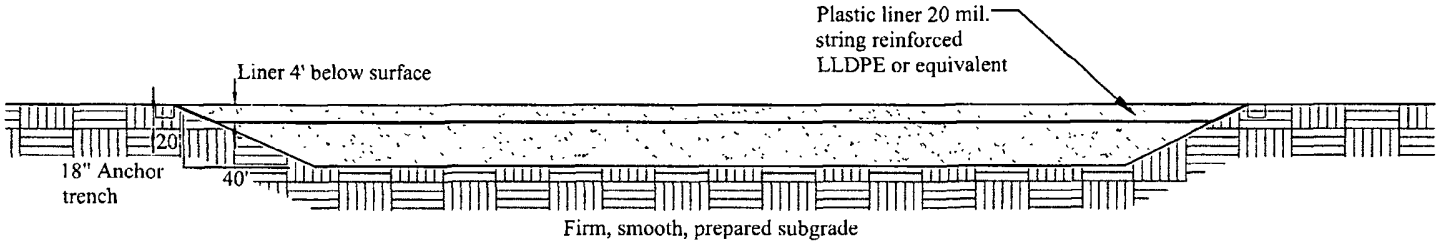
PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540



Site Overhead View

Date:	9-15-08
Scale:	Not To Scale
Drawn By:	SJA

Mewbourne Oil Company
Paloma 28 State #2
Lea County, New Mexico
Pit Liner Site Plain



Site Detail

Date: 09·15·08	Mewbourne Oil Company Paloma 28 State Com #2 Lea County, New Mexico Pit Liner Detail Plat
Scale: Not To Scale	
Drawn By: SJA	

On the 8 day of May, 2008 Mewbourne Oil Co. visually inspected the Paloma 28 St Com #2 location in Unit Letter M of Sec 28, T 20 S, R 36 E, of Lea County, NM with the API # 30 - 025-38908.

This is to certify that upon visual inspection of the above mentioned location there are no permanent residences, schools, hospitals, institutions or churches within 300 feet. The location is not within 500 feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, nor within 1000 horizontal feet of any other fresh water well or spring, nor within 500 feet of a wetland, nor within 300 feet of a continuously flowing water course, nor within 200 feet of any other significant watercourse or lakebed, sinkhole or playa lake (measured from the ordinary high-water mark).

Signature: Charles L. Martin Date: 9-15-08

Summary Report

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: October 3, 2008

Work Order: 8092924

Project Location: Lea County, NM
Project Name: Paloma 28 St. Com. #2

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
174935	BH-1	soil	2008-09-26	09:40	2008-09-29
174936	BH-2	soil	2008-09-26	09:50	2008-09-29
174937	Drill Cuttings	soil	2008-09-26	10:15	2008-09-29

	BTEX				MTBE	TPH 418.1	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TRPHC	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
174935 - BH-1	<0.0100	<0.0100	<0.0100	<0.0100		<10.0	<50.0	<1.00
174936 - BH-2	<0.0100	<0.0100	<0.0100	<0.0100		<10.0	<50.0	<1.00
174937 - Drill Cuttings						<10.0		

Sample: 174935 - BH-1

Param	Flag	Result	Units	RL
Chloride		<32.5	mg/Kg	3.25

Sample: 174936 - BH-2

Param	Flag	Result	Units	RL
Chloride		<32.5	mg/Kg	3.25

Sample: 174937 - Drill Cuttings

Param	Flag	Result	Units	RL
SPLP Silver		<0.00300	mg/L	0.00300
SPLP Arsenic		<0.0100	mg/L	0.0100

continued ...

sample 174937 continued ...

Param	Flag	Result	Units	RL
SPLP Barium		**0.330**	mg/L	0.100
SPLP Cadmium		<0.00500	mg/L	0.00500
SPLP Chloride		**21.2**	mg/L	0.500
SPLP Cyanide		<2.00	mg/Kg	2.00
SPLP Fluoride		<1.00	mg/L	0.200
SPLP Mercury		<0.000200	mg/L	0.000200
Nitrate-N		<1.00	mg/L	0.200
Naphthalene		<0.000200	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Dibenzofuran		<0.000200	mg/L	0.000200
Fluorene		<0.000200	mg/L	0.000200
Anthracene		<0.000200	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000200	mg/L	0.000200
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200	mg/L	0.000200
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200
SPLP Lead		<0.0100	mg/L	0.0100
Total PCB		<0.000500	mg/L	0.000500
Aroclor 1016 (PCB-1016)		<0.000500	mg/L	0.000500
Aroclor 1221 (PCB-1221)		<0.000500	mg/L	0.000500
Aroclor 1232 (PCB-1232)		<0.000500	mg/L	0.000500
Aroclor 1242 (PCB-1242)		<0.000500	mg/L	0.000500
Aroclor 1248 (PCB-1248)		<0.000500	mg/L	0.000500
Aroclor 1254 (PCB-1254)		<0.000500	mg/L	0.000500
Aroclor 1260 (PCB-1260)		<0.000500	mg/L	0.000500
Aroclor 1268 (PCB-1268)		<0.000500	mg/L	0.000500
SPLP Selenium		<0.0500	mg/L	0.0500
SPLP U		<0.0500	mg/L	0.0500
Vinyl Chloride		<1.00	µg/L	1.00
1,1-Dichloroethene		<1.00	µg/L	1.00
Methylene chloride		**5.23**	µg/L	5.00
1,1-Dichloroethane		<1.00	µg/L	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1.00
Chloroform		<1.00	µg/L	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1.00
Benzene		<1.00	µg/L	1.00
Carbon Tetrachloride		<1.00	µg/L	1.00
Trichloroethene (TCE)		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00

continued ...

sample 174937 continued ...

Param	Flag	Result	Units	RL
1,1,2-Trichloroethane		<1.00	µg/L	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1.00

Summary Report

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: September 29, 2008

Work Order: 8092924

Project Location: Lea County, NM
Project Name: Paloma 28 St. Com #2

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
174935	BH-1	soil	2008-09-26	09:40	2008-09-29
174936	BH-2	soil	2008-09-26	09:50	2008-09-29

Sample: 174935 - BH-1

Param	Flag	Result	Units	RL
Chloride		<32.5	mg/Kg	3.25

Sample: 174936 - BH-2

Param	Flag	Result	Units	RL
Chloride		<32.5	mg/Kg	3.25

TRACEANALYSIS, INC.

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX LELAP-02003 Kansas E-10317 **El Paso:** T104704221-08-TX LELAP-02002 **Midland:** T104704392-08-TX

Analytical and Quality Control Report

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: October 3, 2008

Work Order: 8092924

Project Location: Lea County, NM
Project Name: Paloma 28 St. Com. #2
Project Number: Paloma 28 St. Com. #2

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
174935	BH-1	soil	2008-09-26	09:40	2008-09-29
174936	BH-2	soil	2008-09-26	09:50	2008-09-29
174937	Drill Cuttings	soil	2008-09-26	10:15	2008-09-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 44 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Paloma 28 St. Com. #2 were received by TraceAnalysis, Inc. on 2008-09-29 and assigned to work order 8092924. Samples for work order 8092924 were received intact at a temperature of 3.9 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
SPLP Ag	S 6010B
SPLP As	S 6010B
SPLP Ba	S 6010B
SPLP Cd	S 6010B
SPLP Cl	E 300.0
SPLP Cyanide	SM 4500-CN C,E
SPLP Fluoride	E 300.0
SPLP Hg	S 7470A
SPLP NO3 (IC)	E 300.0
SPLP PAH	S 8270C
SPLP Pb	S 6010B
SPLP PCB	S 8082
SPLP Se	S 6010B
SPLP U	S 6010B
SPLP Volatiles	S 8260B
TPH 418.1	E 418.1
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8092924 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 174935 - BH-1

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	52815	Date Analyzed:	2008-09-29	Analyzed By:	ER
Prep Batch:	45262	Sample Preparation:	2008-09-29	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.26	mg/Kg	1	1.00	126	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.29	mg/Kg	1	1.00	129	54.4 - 176.2

Sample: 174935 - BH-1

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52819	Date Analyzed:	2008-09-29	Analyzed By:	RD
Prep Batch:	45264	Sample Preparation:	2008-09-29	Prepared By:	RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<32.5	mg/Kg	10	3.25

Sample: 174935 - BH-1

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	52850	Date Analyzed:	2008-09-30	Analyzed By:	CM
Prep Batch:	45291	Sample Preparation:	2008-09-30	Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		<10.0	mg/Kg	1	10.0

Sample: 174935 - BH-1

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	52840	Date Analyzed:	2008-09-29	Analyzed By:	MN
Prep Batch:	45282	Sample Preparation:	2008-09-29	Prepared By:	MN

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		110	mg/Kg	1	100	110	57.5 - 139

Sample: 174935 - BH-1

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	52816	Date Analyzed:	2008-09-29	Analyzed By:	ER
Prep Batch:	45262	Sample Preparation:	2008-09-29	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.51	mg/Kg	1	1.00	151	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.57	mg/Kg	1	1.00	157	45.6 - 214.7

Sample: 174936 - BH-2

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	52815	Date Analyzed:	2008-09-29	Analyzed By:	ER
Prep Batch:	45262	Sample Preparation:	2008-09-29	Prepared By:	ER

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[1]	1.44	mg/Kg	1	1.00	144	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.39	mg/Kg	1	1.00	139	54.4 - 176.2

Sample: 174936 - BH-2

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	52819	Date Analyzed:	2008-09-29	Analyzed By:	RD
Prep Batch:	45264	Sample Preparation:	2008-09-29	Prepared By:	RD

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<32.5	mg/Kg	10	3.25

Sample: 174936 - BH-2

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	52850	Date Analyzed:	2008-09-30	Analyzed By:	CM
Prep Batch:	45291	Sample Preparation:	2008-09-30	Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		<10.0	mg/Kg	1	10.0

Sample: 174936 - BH-2

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	52840	Date Analyzed:	2008-09-29	Analyzed By:	MN
Prep Batch:	45282	Sample Preparation:	2008-09-29	Prepared By:	MN

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		105	mg/Kg	1	100	105	57.5 - 139

[1] High surrogate recovery. Sample non-detect, result bias high.

Sample: 174936 - BH-2

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	52816	Date Analyzed:	2008-09-29	Analyzed By:	ER
Prep Batch:	45262	Sample Preparation:	2008-09-29	Prepared By:	ER

Parameter	Flag	Result	RL	Units	Dilution	RL
GRO		<1.00		mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[2]	1.75	mg/Kg	1	1.00	175	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	1.00	170	45.6 - 214.7

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Ag	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	SPLP Extraction:	2008-09-30	Prepared By:	KV
		Sample Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Silver		<0.00300		mg/L	1	0.00300

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP As	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	SPLP Extraction:	2008-09-30	Prepared By:	KV
		Sample Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Arsenic		<0.0100		mg/L	1	0.0100

[2]High surrogate recovery. Sample non-detect, result bias high.

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Ba	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	SPLP Extraction:	2008-09-30	Prepared By:	KV
		Sample Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Barium		**0.330**		mg/L	1	0.100

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Cd	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	SPLP Extraction:	2008-09-30	Prepared By:	KV
		Sample Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Cadmium		<0.00500		mg/L	1	0.00500

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Cl	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	52903	Date Analyzed:	2008-10-01	Analyzed By:	RD
Prep Batch:	45327	SPLP Extraction:	2008-09-30	Prepared By:	RD
		Sample Preparation:	2008-10-01	Prepared By:	RD

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Chloride		**21.2**		mg/L	5	0.500

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Cyanide	Analytical Method:	SM 4500-CN C,E	Prep Method:	SPLP 1312
QC Batch:	52953	Date Analyzed:	2008-10-02	Analyzed By:	SS
Prep Batch:	45368	SPLP Extraction:	2008-10-01	Prepared By:	SS
		Sample Preparation:	2008-10-02	Prepared By:	SS

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Cyanide		<2.00	mg/Kg	1	2.00

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Fluoride	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	52903	Date Analyzed:	2008-10-01	Analyzed By:	RD
Prep Batch:	45327	SPLP Extraction:	2008-09-30	Prepared By:	RD
		Sample Preparation:	2008-10-01	Prepared By:	RD

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Fluoride		<1.00	mg/L	5	0.200

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Hg	Analytical Method:	S 7470A	Prep Method:	N/A
QC Batch:	52897	Date Analyzed:	2008-10-01	Analyzed By:	TP
Prep Batch:	45323	Sample Preparation:	2008-10-01	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Mercury		<0.000200	mg/L	1	0.000200

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	52903	Date Analyzed:	2008-10-01	Analyzed By:	RD
Prep Batch:	45327	SPLP Extraction:	2008-09-30	Prepared By:	RD
		Sample Preparation:	2008-10-01	Prepared By:	RD

Parameter	Flag	RL Result	Units	Dilution	RL
Nitrate-N		<1.00	mg/L	5	0.200

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP PAH	Analytical Method:	S 8270C	Prep Method:	SPLP 1312
QC Batch:	52958	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45372	SPLP Extraction:	2008-10-01	Prepared By:	DS
		Sample Preparation:	2008-10-02	Prepared By:	DS

Parameter	Flag	Result	RL	Units	Dilution	RL
Naphthalene		<0.000200		mg/L	1	0.000200
Acenaphthylene		<0.000200		mg/L	1	0.000200
Acenaphthene		<0.000200		mg/L	1	0.000200
Dibenzofuran		<0.000200		mg/L	1	0.000200
Fluorene		<0.000200		mg/L	1	0.000200
Anthracene		<0.000200		mg/L	1	0.000200
Phenanthrene		<0.000200		mg/L	1	0.000200
Fluoranthene		<0.000200		mg/L	1	0.000200
Pyrene		<0.000200		mg/L	1	0.000200
Benzo(a)anthracene		<0.000200		mg/L	1	0.000200
Chrysene		<0.000200		mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200		mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000200		mg/L	1	0.000200
Benzo(a)pyrene		<0.000200		mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000200		mg/L	1	0.000200
Dibenzo(a,h)anthracene		<0.000200		mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200		mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		0.0486	mg/L	1	0.0800	61	37.4 - 123
Nitrobenzene-d5		0.0438	mg/L	1	0.0800	55	34.3 - 130
Terphenyl-d14		0.0665	mg/L	1	0.0800	83	10 - 252

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Pb	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	SPLP Extraction:	2008-09-30	Prepared By:	KV
		Sample Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	Result	RL	Units	Dilution	RL
SPLP Lead		<0.0100		mg/L	1	0.0100

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP PCB	Analytical Method:	S 8082	Prep Method:	SPLP 1312
QC Batch:	52959	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45374	SPLP Extraction:	2008-10-01	Prepared By:	DS
		Sample Preparation:	2008-10-02	Prepared By:	DS

Parameter	Flag	Result	RL Result	Units	Dilution	RL
Total PCB			<0.000500	mg/L	1	0.000500
Aroclor 1016 (PCB-1016)			<0.000500	mg/L	1	0.000500
Aroclor 1221 (PCB-1221)			<0.000500	mg/L	1	0.000500
Aroclor 1232 (PCB-1232)			<0.000500	mg/L	1	0.000500
Aroclor 1242 (PCB-1242)			<0.000500	mg/L	1	0.000500
Aroclor 1248 (PCB-1248)			<0.000500	mg/L	1	0.000500
Aroclor 1254 (PCB-1254)			<0.000500	mg/L	1	0.000500
Aroclor 1260 (PCB-1260)			<0.000500	mg/L	1	0.000500
Aroclor 1268 (PCB-1268)			<0.000500	mg/L	1	0.000500

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Deca chlorobiphenyl		0.000514	mg/L	1	0.000500	103	10 - 128

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Se	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	SPLP Extraction:	2008-09-30	Prepared By:	KV
		Sample Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	Result	RL Result	Units	Dilution	RL
SPLP Selenium			<0.0500	mg/L	1	0.0500

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP U	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	SPLP Extraction:	2008-09-30	Prepared By:	KV
		Sample Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP U		<0.0500	mg/L	1	0.0500

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Volatiles	Analytical Method:	S 8260B	Prep Method:	SPLP 1312
QC Batch:	52938	Date Analyzed:	2008-10-01	Analyzed By:	KB
Prep Batch:	45355	SPLP Extraction:	2008-09-30	Prepared By:	KB
		Sample Preparation:	2008-10-01	Prepared By:	KB

Parameter	Flag	RL Result	Units	Dilution	RL
Vinyl Chloride		<1.00	µg/L	1	1.00
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		**5.23**	µg/L	1	5.00
1,1-Dichloroethane		<1.00	µg/L	1	1.00
1,2-Dichloroethane (EDC)		<1.00	µg/L	1	1.00
Chloroform		<1.00	µg/L	1	1.00
1,1,1-Trichloroethane		<1.00	µg/L	1	1.00
Benzene		<1.00	µg/L	1	1.00
Carbon Tetrachloride		<1.00	µg/L	1	1.00
Trichloroethene (TCE)		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
1,1,2-Trichloroethane		<1.00	µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00	µg/L	1	1.00
Tetrachloroethene (PCE)		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00
1,1,2,2-Tetrachloroethane		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.5	µg/L	1	50.0	115	70 - 130
Toluene-d8		51.4	µg/L	1	50.0	103	70 - 130
4-Bromofluorobenzene (4-BFB)		45.0	µg/L	1	50.0	90	70 - 130

Sample: 174937 - Drill Cuttings

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	52850	Date Analyzed:	2008-09-30	Analyzed By:	CM
Prep Batch:	45291	Sample Preparation:	2008-09-30	Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		<10.0	mg/Kg	1	10.0

Method Blank (1) QC Batch: 52815

QC Batch: 52815 Date Analyzed: 2008-09-29 Analyzed By: ER
Prep Batch: 45262 QC Preparation: 2008-09-29 Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00347	mg/Kg	0.01
Toluene		<0.00525	mg/Kg	0.01
Ethylbenzene		<0.00607	mg/Kg	0.01
Xylene		<0.00724	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.864	mg/Kg	1	1.00	86	69.3 - 110.2
4-Bromofluorobenzene (4-BFB)		0.631	mg/Kg	1	1.00	63	24.4 - 114.6

Method Blank (1) QC Batch: 52816

QC Batch: 52816 Date Analyzed: 2008-09-29 Analyzed By: ER
Prep Batch: 45262 QC Preparation: 2008-09-29 Prepared By: ER

Parameter	Flag	MDL Result	Units	RL
GRO		<0.144	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	83.3 - 108.5
4-Bromofluorobenzene (4-BFB)		0.783	mg/Kg	1	1.00	78	34.5 - 105.8

Method Blank (1) QC Batch: 52819

QC Batch: 52819 Date Analyzed: 2008-09-29 Analyzed By: RD
Prep Batch: 45264 QC Preparation: 2008-09-29 Prepared By: RD

Parameter	Flag	MDL Result	Units	RL
Chloride		<1.80	mg/Kg	3.25

Method Blank (1) QC Batch: 52840

QC Batch:	52840	Date Analyzed:	2008-09-29	Analyzed By:	MN
Prep Batch:	45282	QC Preparation:	2008-09-29	Prepared By:	MN

Parameter	Flag	MDL Result	Units	RL
DRO		<14.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		94.4	mg/Kg	1	100	94	72.4 - 150

Method Blank (1) QC Batch: 52850

QC Batch:	52850	Date Analyzed:	2008-09-30	Analyzed By:	CM
Prep Batch:	45291	QC Preparation:	2008-09-30	Prepared By:	CM

Parameter	Flag	MDL Result	Units	RL
TRPHC		<1.06	mg/Kg	10

Method Blank (1) QC Batch: 52885

QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	QC Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP Cadmium		<0.00140	mg/L	0.005

Method Blank (1) QC Batch: 52885

QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	QC Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP Lead		<0.00320	mg/L	0.01

Method Blank (1) QC Batch: 52885

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR
Prep Batch: 45312 QC Preparation: 2008-10-01 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Selenium		<0.0131	mg/L	0.05

Method Blank (1) QC Batch: 52885

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR
Prep Batch: 45312 QC Preparation: 2008-10-01 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Arsenic		<0.00430	mg/L	0.01

Method Blank (1) QC Batch: 52885

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR
Prep Batch: 45312 QC Preparation: 2008-10-01 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Barium		<0.00170	mg/L	0.1

Method Blank (1) QC Batch: 52885

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR
Prep Batch: 45312 QC Preparation: 2008-10-01 Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Silver		<0.00210	mg/L	0.003

Method Blank (1) QC Batch: 52885

QC Batch:	52885	Date Analyzed:	2008-10-01	Analyzed By:	RR
Prep Batch:	45312	QC Preparation:	2008-10-01	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP U		<0.0105	mg/L	0.05

Method Blank (1) QC Batch: 52897

QC Batch:	52897	Date Analyzed:	2008-10-01	Analyzed By:	TP
Prep Batch:	45323	QC Preparation:	2008-10-01	Prepared By:	TP

Parameter	Flag	MDL Result	Units	RL
SPLP Mercury		<0.0000251	mg/L	0.0002

Method Blank (1) QC Batch: 52903

QC Batch:	52903	Date Analyzed:	2008-10-01	Analyzed By:	RD
Prep Batch:	45327	QC Preparation:	2008-10-01	Prepared By:	RD

Parameter	Flag	MDL Result	Units	RL
Nitrate-N		<0.0700	mg/L	0.2

Method Blank (1) QC Batch: 52903

QC Batch:	52903	Date Analyzed:	2008-10-01	Analyzed By:	RD
Prep Batch:	45327	QC Preparation:	2008-10-01	Prepared By:	RD

Parameter	Flag	MDL Result	Units	RL
SPLP Chloride		<0.137	mg/L	0.5

Method Blank (1) QC Batch: 52903

QC Batch:	52903	Date Analyzed:	2008-10-01	Analyzed By:	RD
Prep Batch:	45327	QC Preparation:	2008-10-01	Prepared By:	RD

Parameter	Flag	MDL Result	Units	RL
SPLP Fluoride		<0.0889	mg/L	0.2

Method Blank (1) QC Batch: 52938

QC Batch: 52938
Prep Batch: 45355

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.177	µg/L	1
Dichlorodifluoromethane		<0.208	µg/L	1
Chloromethane (methyl chloride)		<0.134	µg/L	1
Vinyl Chloride		<0.135	µg/L	1
Bromomethane (methyl bromide)		<1.23	µg/L	5
Chloroethane		<0.182	µg/L	1
Trichlorofluoromethane		<0.0610	µg/L	1
Acetone		<5.50	µg/L	10
Iodomethane (methyl iodide)		<0.107	µg/L	5
Carbon Disulfide		<0.0360	µg/L	1
Acrylonitrile		<0.0970	µg/L	1
2-Butanone (MEK)		<0.531	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.421	µg/L	5
2-Hexanone		<0.168	µg/L	5
trans 1,4-Dichloro-2-butene		<0.517	µg/L	10
1,1-Dichloroethene		<0.136	µg/L	1
Methylene chloride		<0.649	µg/L	5
MTBE		<0.123	µg/L	1
trans-1,2-Dichloroethene		<0.126	µg/L	1
1,1-Dichloroethane		<0.0600	µg/L	1
cis-1,2-Dichloroethene		<0.151	µg/L	1
2,2-Dichloropropane		<0.180	µg/L	1
1,2-Dichloroethane (EDC)		<0.113	µg/L	1
Chloroform		<0.141	µg/L	1
1,1,1-Trichloroethane		<0.116	µg/L	1
1,1-Dichloropropene		<0.0540	µg/L	1
Benzene		<0.146	µg/L	1
Carbon Tetrachloride		<0.0790	µg/L	1
1,2-Dichloropropane		<0.111	µg/L	1
Trichloroethene (TCE)		<0.117	µg/L	1
Dibromomethane (methylene bromide)		<0.140	µg/L	1
Bromodichloromethane		<0.161	µg/L	1
2-Chloroethyl vinyl ether		<0.388	µg/L	5
cis-1,3-Dichloropropene		<0.0890	µg/L	1
trans-1,3-Dichloropropene		<0.0760	µg/L	1

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Parameter	Flag	MDL Result	Units	RL
Toluene		<0.0600	µg/L	1
1,1,2-Trichloroethane		<0.135	µg/L	1
1,3-Dichloropropane		<0.0990	µg/L	1
Dibromochloromethane		<0.0900	µg/L	1
1,2-Dibromoethane (EDB)		<0.0700	µg/L	1
Tetrachloroethene (PCE)		<0.270	µg/L	1
Chlorobenzene		<0.0540	µg/L	1
1,1,1,2-Tetrachloroethane		<0.0990	µg/L	1
Ethylbenzene		<0.0360	µg/L	1
m,p-Xylene		<0.0940	µg/L	1
Bromoform		<0.0570	µg/L	1
Styrene		<0.0910	µg/L	1
o-Xylene		<0.0960	µg/L	1
1,1,2,2-Tetrachloroethane		<0.125	µg/L	1
2-Chlorotoluene		<0.0570	µg/L	1
1,2,3-Trichloropropane		<0.458	µg/L	1
Isopropylbenzene		<0.0850	µg/L	1
Bromobenzene		<0.106	µg/L	1
n-Propylbenzene		<0.0590	µg/L	1
1,3,5-Trimethylbenzene		<0.0250	µg/L	1
tert-Butylbenzene		<0.107	µg/L	1
1,2,4-Trimethylbenzene		<0.0990	µg/L	1
1,4-Dichlorobenzene (para)		<0.217	µg/L	1
sec-Butylbenzene		<0.0430	µg/L	1
1,3-Dichlorobenzene (meta)		<0.0690	µg/L	1
p-Isopropyltoluene		<0.106	µg/L	1
4-Chlorotoluene		<0.0940	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	1
n-Butylbenzene		<0.0850	µg/L	1
1,2-Dibromo-3-chloropropane		<0.690	µg/L	5
1,2,3-Trichlorobenzene		<0.135	µg/L	5
1,2,4-Trichlorobenzene		<0.155	µg/L	5
Naphthalene		<0.594	µg/L	5
Hexachlorobutadiene		<0.248	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.0	µg/L	1	50.0	104	70 - 130
Toluene-d8		50.1	µg/L	1	50.0	100	70 - 130
4-Bromofluorobenzene (4-BFB)		45.6	µg/L	1	50.0	91	70 - 130

Method Blank (1) QC Batch: 52953

QC Batch:	52953	Date Analyzed:	2008-10-02	Analyzed By:	SS
Prep Batch:	45368	QC Preparation:	2008-10-02	Prepared By:	SS

Parameter	Flag	MDL Result	Units	RL
SPLP Cyanide		<1.94	mg/Kg	2

Method Blank (1) QC Batch: 52958

QC Batch:	52958	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45372	QC Preparation:	2008-10-02	Prepared By:	DS

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000853	mg/L	0.0002
Acenaphthylene		<0.0000768	mg/L	0.0002
Acenaphthene		<0.000103	mg/L	0.0002
Dibenzofuran		<0.000200	mg/L	0.0002
Fluorene		<0.0000861	mg/L	0.0002
Anthracene		<0.000170	mg/L	0.0002
Phenanthrene		<0.0000884	mg/L	0.0002
Fluoranthene		<0.0000969	mg/L	0.0002
Pyrene		<0.0000855	mg/L	0.0002
Benzo(a)anthracene		<0.0000703	mg/L	0.0002
Chrysene		<0.000113	mg/L	0.0002
Benzo(b)fluoranthene		<0.000134	mg/L	0.0002
Benzo(k)fluoranthene		<0.000227	mg/L	0.0002
Benzo(a)pyrene		<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000253	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000180	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000158	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorobiphenyl		0.0450	mg/L	1	0.0800	56	10 - 146
Nitrobenzene-d5		0.0523	mg/L	1	0.0800	65	10 - 141
Terphenyl-d14		0.0635	mg/L	1	0.0800	79	10 - 266

Method Blank (1) QC Batch: 52959

QC Batch:	52959	Date Analyzed:	2008-10-02	Analyzed By:	DS
Prep Batch:	45374	QC Preparation:	2008-10-02	Prepared By:	DS

Parameter	Flag	MDL Result	Units	RL
Total PCB		<0.000125	mg/L	0.0005
Aroclor 1016 (PCB-1016)		<0.000122	mg/L	0.0005
Aroclor 1221 (PCB-1221)		<0.000118	mg/L	0.0005
Aroclor 1232 (PCB-1232)		<0.0000459	mg/L	0.0005
Aroclor 1242 (PCB-1242)		<0.000125	mg/L	0.0005
Aroclor 1248 (PCB-1248)		<0.0000546	mg/L	0.0005
Aroclor 1254 (PCB-1254)		<0.0000569	mg/L	0.0005
Aroclor 1260 (PCB-1260)		<0.0000331	mg/L	0.0005
Aroclor 1268 (PCB-1268)		<0.0000282	mg/L	

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Deca chlorobiphenyl		0.000432	mg/L	1	0.000500	86	10 - 128

Laboratory Control Spike (LCS-1)

QC Batch: 52815
Prep Batch: 45262

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: ER
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.831	mg/Kg	1	1.00	<0.00347	83	80.5 - 115.5
Toluene	0.849	mg/Kg	1	1.00	<0.00525	85	80 - 114.7
Ethylbenzene	0.815	mg/Kg	1	1.00	<0.00607	82	77.1 - 114.2
Xylene	2.52	mg/Kg	1	3.00	<0.00724	84	77.6 - 114.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.875	mg/Kg	1	1.00	<0.00347	88	80.5 - 115.5	5	20
Toluene	0.864	mg/Kg	1	1.00	<0.00525	86	80 - 114.7	2	20
Ethylbenzene	0.835	mg/Kg	1	1.00	<0.00607	84	77.1 - 114.2	2	20
Xylene	2.58	mg/Kg	1	3.00	<0.00724	86	77.6 - 114.5	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.830	0.833	mg/Kg	1	1.00	83	83	74.2 - 114.7
4-Bromofluorobenzene (4-BFB)	0.774	0.804	mg/Kg	1	1.00	77	80	69.7 - 118.7

Laboratory Control Spike (LCS-1)

QC Batch: 52816
Prep Batch: 45262

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: ER
Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.62	mg/Kg	1	10.0	<0.144	96	73.1 - 114.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	8.91	mg/Kg	1	10.0	<0.144	89	73.1 - 114.7	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.961	0.903	mg/Kg	1	1.00	96	90	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	0.956	0.945	mg/Kg	1	1.00	96	94	70.3 - 116.1

Laboratory Control Spike (LCS-1)

QC Batch: 52819
Prep Batch: 45264

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: RD
Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.0	mg/Kg	1	100	<1.80	99	96.5 - 104.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	97.5	mg/Kg	1	100	<1.80	98	96.5 - 104.4	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52840
Prep Batch: 45282

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: MN
Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	293	mg/Kg	1	250	<14.5	117	73.4 - 123

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	281	mg/Kg	1	250	<14.5	112	73.4 - 123	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	102	99.4	mg/Kg	1	100	102	99	57.5 - 139

Laboratory Control Spike (LCS-1)

QC Batch: 52850
Prep Batch: 45291

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-30

Analyzed By: CM
Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	231	mg/Kg	1	250	<1.06	92	75.5 - 136

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	240	mg/Kg	1	250	<1.06	96	75.5 - 136	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cadmium	0.271	mg/L	1	0.250	<0.00140	108	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cadmium	0.269	mg/L	1	0.250	<0.00140	108	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Lead	0.503	mg/L	1	0.500	<0.00320	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Lead	0.489	mg/L	1	0.500	<0.00320	98	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Selenium	0.460	mg/L	1	0.500	<0.0131	92	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Selenium	0.459	mg/L	1	0.500	<0.0131	92	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Arsenic	0.512	mg/L	1	0.500	<0.00430	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Arsenic	0.509	mg/L	1	0.500	<0.00430	102	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Barium	1.07	mg/L	1	1.00	<0.00170	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Barium	1.07	mg/L	1	1.00	<0.00170	107	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR
Prep Batch: 45312 QC Preparation: 2008-10-01 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Silver	0.129	mg/L	1	0.125	<0.00210	103	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Silver	0.126	mg/L	1	0.125	<0.00210	101	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR
Prep Batch: 45312 QC Preparation: 2008-10-01 Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP U	0.505	mg/L	1	0.500	<0.0105	101	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP U	0.523	mg/L	1	0.500	<0.0105	105	90 - 110	4	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52897 Date Analyzed: 2008-10-01 Analyzed By: TP
Prep Batch: 45323 QC Preparation: 2008-10-01 Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Mercury	0.00100	mg/L	1	0.00100	<0.0000251	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Mercury	0.000962	mg/L	1	0.00100	<0.0000251	96	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52903
Prep Batch: 45327

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RD
Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	2.38	mg/L	1	2.50	<0.0700	95	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N	2.34	mg/L	1	2.50	<0.0700	94	90 - 110	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52903
Prep Batch: 45327

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RD
Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chloride	12.7	mg/L	1	12.5	<0.137	102	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Chloride	12.7	mg/L	1	12.5	<0.137	102	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52903
Prep Batch: 45327

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RD
Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Fluoride	2.46	mg/L	1	2.50	<0.0889	98	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Fluoride	2.46	mg/L	1	2.50	<0.0889	98	90 - 110	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52938
Prep Batch: 45355

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: KB
Prepared By: KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	42.2	µg/L	1	50.0	<0.136	84	70 - 130
Benzene	53.3	µg/L	1	50.0	<0.146	107	70 - 130
Trichloroethene (TCE)	47.0	µg/L	1	50.0	<0.117	94	70 - 130
Toluene	53.7	µg/L	1	50.0	<0.0600	107	70 - 130
Chlorobenzene	51.5	µg/L	1	50.0	<0.0540	103	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	40.2	µg/L	1	50.0	<0.136	80	70 - 130	5	
Benzene	54.5	µg/L	1	50.0	<0.146	109	70 - 130	2	
Trichloroethene (TCE)	48.6	µg/L	1	50.0	<0.117	97	70 - 130	3	
Toluene	54.5	µg/L	1	50.0	<0.0600	109	70 - 130	2	
Chlorobenzene	52.1	µg/L	1	50.0	<0.0540	104	70 - 130	1	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	47.1	46.2	µg/L	1	50.0	94	92	70 - 130
Toluene-d8	48.9	48.7	µg/L	1	50.0	98	97	70 - 130
4-Bromofluorobenzene (4-BFB)	51.7	50.8	µg/L	1	50.0	103	102	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 52953
Prep Batch: 45368

Date Analyzed: 2008-10-02
QC Preparation: 2008-10-02

Analyzed By: SS
Prepared By: SS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cyanide	11.5	mg/Kg	1	12.0	<1.94	96	-

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cyanide	11.3	mg/Kg	1	12.0	<1.94	94	-	2	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 52958 | Date Analyzed: 2008-10-02 | Analyzed By: DS
Prep Batch: 45372 | QC Preparation: 2008-10-02 | Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0505	mg/L	1	0.0800	<0.0000853	63	10 - 141
Acenaphthylene	0.0620	mg/L	1	0.0800	<0.0000768	78	10 - 152
Acenaphthene	0.0597	mg/L	1	0.0800	<0.000103	75	10 - 151
Dibenzofuran	0.0595	mg/L	1	0.0800	<0.000200	74	10 - 148
Fluorene	0.0694	mg/L	1	0.0800	<0.0000861	87	10 - 172
Anthracene	0.0630	mg/L	1	0.0800	<0.000170	79	19.6 - 172
Phenanthrene	0.0608	mg/L	1	0.0800	<0.0000884	76	22.5 - 172
Fluoranthene	0.0672	mg/L	1	0.0800	<0.0000969	84	17.3 - 187
Pyrene	0.0670	mg/L	1	0.0800	<0.0000855	84	14.9 - 199
Benzo(a)anthracene	0.0647	mg/L	1	0.0800	<0.0000703	81	19.4 - 185
Chrysene	0.0671	mg/L	1	0.0800	<0.000113	84	18.4 - 188
Benzo(b)fluoranthene	0.0629	mg/L	1	0.0800	<0.000134	79	10 - 193
Benzo(k)fluoranthene	0.0670	mg/L	1	0.0800	<0.000227	84	27.8 - 196
Benzo(a)pyrene	0.0725	mg/L	1	0.0800	<0.000200	91	12.4 - 205
Indeno(1,2,3-cd)pyrene	0.0759	mg/L	1	0.0800	<0.000253	95	10 - 198
Dibenzo(a,h)anthracene	0.0758	mg/L	1	0.0800	<0.000180	95	10 - 172
Benzo(g,h,i)perylene	0.0752	mg/L	1	0.0800	<0.000158	94	10 - 186

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	0.0482	mg/L	1	0.0800	<0.0000853	60	10 - 141	5	20
Acenaphthylene	0.0601	mg/L	1	0.0800	<0.0000768	75	10 - 152	3	20
Acenaphthene	0.0572	mg/L	1	0.0800	<0.000103	72	10 - 151	4	20
Dibenzofuran	0.0575	mg/L	1	0.0800	<0.000200	72	10 - 148	3	20
Fluorene	0.0659	mg/L	1	0.0800	<0.0000861	82	10 - 172	5	20
Anthracene	0.0604	mg/L	1	0.0800	<0.000170	76	19.6 - 172	4	20
Phenanthrene	0.0589	mg/L	1	0.0800	<0.0000884	74	22.5 - 172	3	20

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control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Fluoranthene	0.0646	mg/L	1	0.0800	<0.0000969	81	17.3 - 187	4	20
Pyrene	0.0637	mg/L	1	0.0800	<0.0000855	80	14.9 - 199	5	20
Benzo(a)anthracene	0.0612	mg/L	1	0.0800	<0.0000703	76	19.4 - 185	6	20
Chrysene	0.0639	mg/L	1	0.0800	<0.000113	80	18.4 - 188	5	20
Benzo(b)fluoranthene	0.0625	mg/L	1	0.0800	<0.000134	78	10 - 193	1	20
Benzo(k)fluoranthene	0.0656	mg/L	1	0.0800	<0.000227	82	27.8 - 196	2	20
Benzo(a)pyrene	0.0714	mg/L	1	0.0800	<0.000200	89	12.4 - 205	2	20
Indeno(1,2,3-cd)pyrene	0.0755	mg/L	1	0.0800	<0.000253	94	10 - 198	0	20
Dibenzo(a,h)anthracene	0.0743	mg/L	1	0.0800	<0.000180	93	10 - 172	2	20
Benzo(g,h,i)perylene	0.0740	mg/L	1	0.0800	<0.000158	92	10 - 186	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorobiphenyl	0.0569	0.0551	mg/L	1	0.0800	71	69	10 - 165
Nitrobenzene-d5	0.0590	0.0565	mg/L	1	0.0800	74	71	10 - 157
Terphenyl-d14	0.0717	0.0691	mg/L	1	0.0800	90	86	10 - 220

Laboratory Control Spike (LCS-1)

QC Batch: 52959 | Date Analyzed: 2008-10-02 | Analyzed By: DS
Prep Batch: 45374 | QC Preparation: 2008-10-02 | Prepared By: DS

Param		LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Aroclor 1260 (PCB-1260)	[3]	0.00276	mg/L	1	0.00200	<0.0000331	138	10 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Aroclor 1260 (PCB-1260)	[4]	0.00274	mg/L	1	0.00200	<0.0000331	137	10 - 128	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Deca chlorobiphenyl	0.000416	0.000415	mg/L	1	0.000500	83	83	10 - 128

[3]Aroclor 1260 (PCB-1260) above control chart limits for LCS/LCSD. Entire QC batch non-detect, bias high. •
[4]Aroclor 1260 (PCB-1260) above control chart limits for LCS/LCSD. Entire QC batch non-detect, bias high. •

Matrix Spike (MS-1) Spiked Sample: 174928

QC Batch: 52815
Prep Batch: 45262

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: ER
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.740	mg/Kg	1	1.00	<0.00347	74	42.9 - 130.7
Toluene	0.772	mg/Kg	1	1.00	<0.00525	77	46.9 - 135.4
Ethylbenzene	0.802	mg/Kg	1	1.00	<0.00607	80	48.3 - 149.3
Xylene	2.44	mg/Kg	1	3.00	<0.00724	81	48.8 - 150.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.854	mg/Kg	1	1.00	<0.00347	85	42.9 - 130.7	14	20
Toluene	0.897	mg/Kg	1	1.00	<0.00525	90	46.9 - 135.4	15	20
Ethylbenzene	0.929	mg/Kg	1	1.00	<0.00607	93	48.3 - 149.3	15	20
Xylene	2.82	mg/Kg	1	3.00	<0.00724	94	48.8 - 150.9	14	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.882	0.997	mg/Kg	1	1	88	100	63.2 - 128.3
4-Bromofluorobenzene (4-BFB)	0.946	1.05	mg/Kg	1	1	95	105	61.5 - 161.2

Matrix Spike (MS-1) Spiked Sample: 174933

QC Batch: 52816
Prep Batch: 45262

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: ER
Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	12.9	mg/Kg	1	10.0	<0.144	129	48.9 - 155.8

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	12.6	mg/Kg	1	10.0	<0.144	126	48.9 - 155.8	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.32	1.20	mg/Kg	1	1	132	120	41.8 - 145.4
4-Bromofluorobenzene (4-BFB)	1.60	1.48	mg/Kg	1	1	160	148	50.3 - 197.8

Matrix Spike (MS-1) Spiked Sample:

QC Batch: 52819
Prep Batch: 45264

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: RD
Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	788	mg/Kg	10	500	243.24	109	74.7 - 123.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	792	mg/Kg	10	500	243.24	110	74.7 - 123.2	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174870

QC Batch: 52840
Prep Batch: 45282

Date Analyzed: 2008-09-29
QC Preparation: 2008-09-29

Analyzed By: MN
Prepared By: MN

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	99.2	mg/Kg	1	250	64.1	14	0 - 197

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	[5]	131	mg/Kg	1	250	64.1	27	0 - 197	28	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	[6] [7]	346	372	mg/Kg	1	100	346	372	57.5 - 139

Matrix Spike (MS-1) Spiked Sample:

QC Batch: 52850
Prep Batch: 45291

Date Analyzed: 2008-09-30
QC Preparation: 2008-09-30

Analyzed By: CM
Prepared By: CM

[5] MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[6] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[7] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	116	mg/Kg	1	250	<1.06	46	10 - 354

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	124	mg/Kg	1	250	<1.06	50	10 - 354	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cadmium	0.264	mg/L	1	0.250	<0.00140	106	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cadmium	0.264	mg/L	1	0.250	<0.00140	106	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Lead	0.497	mg/L	1	0.500	<0.00320	99	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Lead	0.517	mg/L	1	0.500	<0.00320	103	75 - 125	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Selenium	0.451	mg/L	1	0.500	<0.0131	90	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Selenium	0.450	mg/L	1	0.500	<0.0131	90	75 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Arsenic	0.504	mg/L	1	0.500	<0.00430	101	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Arsenic	0.498	mg/L	1	0.500	<0.00430	100	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Barium	1.41	mg/L	1	1.00	0.33	108	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Barium	1.42	mg/L	1	1.00	0.33	109	75 - 125	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52885
Prep Batch: 45312

Date Analyzed: 2008-10-01
QC Preparation: 2008-10-01

Analyzed By: RR
Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Silver	0.126	mg/L	1	0.125	<0.00210	101	75 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Silver	0.129	mg/L	1	0.125	<0.00210	103	75 - 125	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52885 | Date Analyzed: 2008-10-01 | Analyzed By: RR
Prep Batch: 45312 | QC Preparation: 2008-10-01 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP U	0.534	mg/L	1	0.500	<0.0105	107	90 - 110

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP U	0.537	mg/L	1	0.500	<0.0105	107	90 - 110	1	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52897 | Date Analyzed: 2008-10-01 | Analyzed By: TP
Prep Batch: 45323 | QC Preparation: 2008-10-01 | Prepared By: TP

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Mercury	0.00119	mg/L	1	0.00100	0.000186	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Mercury	0.00118	mg/L	1	0.00100	0.000186	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52903 | Date Analyzed: 2008-10-01 | Analyzed By: RD
Prep Batch: 45327 | QC Preparation: 2008-10-01 | Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	12.3	mg/L	5	12.5	<0.350	98	73.6 - 122

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Nitrate-N	12.2	mg/L	5	12.5	<0.350	98	73.6 - 122	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52903 | Date Analyzed: 2008-10-01 | Analyzed By: RD
Prep Batch: 45327 | QC Preparation: 2008-10-01 | Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chloride	79.0	mg/L	5	62.5	21.1911	92	49.8 - 149

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Chloride	80.0	mg/L	5	62.5	21.1911	94	49.8 - 149	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52903 | Date Analyzed: 2008-10-01 | Analyzed By: RD
Prep Batch: 45327 | QC Preparation: 2008-10-01 | Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Fluoride	12.0	mg/L	5	12.5	<0.444	96	63.5 - 127

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Fluoride	11.2	mg/L	5	12.5	<0.444	90	63.5 - 127	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 174937

QC Batch: 52953 | Date Analyzed: 2008-10-02 | Analyzed By: SS
Prep Batch: 45368 | QC Preparation: 2008-10-02 | Prepared By: SS

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cyanide	12.4	mg/Kg	1	12.0	<1.94	103	-

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cyanide	11.6	mg/Kg	1	12.0	<1.94	97	-	7	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 52815 Date Analyzed: 2008-09-29 Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0908	91	85 - 115	2008-09-29
Toluene		mg/Kg	0.100	0.0890	89	85 - 115	2008-09-29
Ethylbenzene		mg/Kg	0.100	0.0860	86	85 - 115	2008-09-29
Xylene		mg/Kg	0.300	0.268	89	85 - 115	2008-09-29

Standard (CCV-1)

QC Batch: 52815 Date Analyzed: 2008-09-29 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0889	89	85 - 115	2008-09-29
Toluene		mg/Kg	0.100	0.0891	89	85 - 115	2008-09-29
Ethylbenzene		mg/Kg	0.100	0.0887	89	85 - 115	2008-09-29
Xylene		mg/Kg	0.300	0.268	89	85 - 115	2008-09-29

Standard (ICV-1)

QC Batch: 52816 Date Analyzed: 2008-09-29 Analyzed By: ER

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.916	92	85 - 115	2008-09-29

Standard (CCV-1)

QC Batch: 52816 Date Analyzed: 2008-09-29 Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.970	97	85 - 115	2008-09-29

Standard (ICV-1)

QC Batch: 52819 Date Analyzed: 2008-09-29 Analyzed By: RD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2008-09-29

Standard (CCV-1)

QC Batch: 52819 Date Analyzed: 2008-09-29 Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-09-29

Standard (ICV-1)

QC Batch: 52840 Date Analyzed: 2008-09-29 Analyzed By: MN

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	109	85 - 115	2008-09-29

Standard (CCV-1)

QC Batch: 52840 Date Analyzed: 2008-09-29 Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	279	112	85 - 115	2008-09-29

Standard (CCV-1)

QC Batch: 52850 Date Analyzed: 2008-09-30 Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	91.4	91	80 - 120	2008-09-30

Standard (CCV-2)

QC Batch: 52850 Date Analyzed: 2008-09-30 Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	95.2	95	80 - 120	2008-09-30

Standard (ICV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cadmium		mg/L	1.00	1.07	107	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Lead		mg/L	1.00	1.05	105	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Selenium		mg/L	1.00	1.07	107	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Arsenic		mg/L	1.00	1.07	107	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Barium		mg/L	1.00	1.04	104	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Silver		mg/L	0.125	0.130	104	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP U		mg/L	1.00	0.994	99	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cadmium		mg/L	1.00	1.03	103	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Lead		mg/L	1.00	1.01	101	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Selenium		mg/L	1.00	1.04	104	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Arsenic		mg/L	1.00	1.03	103	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Barium		mg/L	1.00	1.07	107	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Silver		mg/L	0.125	0.129	103	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52885 Date Analyzed: 2008-10-01 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP U		mg/L	1.00	1.03	103	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52897 Date Analyzed: 2008-10-01 Analyzed By: TP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Mercury		mg/L	0.00100	0.00102	102	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52897 Date Analyzed: 2008-10-01 Analyzed By: TP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Mercury		mg/L	0.00100	0.000990	99	80 - 120	2008-10-01

Standard (ICV-1)

QC Batch: 52903 Date Analyzed: 2008-10-01 Analyzed By: RD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.39	96	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52903 Date Analyzed: 2008-10-01 Analyzed By: RD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chloride		mg/L	12.5	12.7	102	90 - 110	2008-10-01

Standard (ICV-1)

QC Batch: 52903 Date Analyzed: 2008-10-01 Analyzed By: RD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Fluoride		mg/L	2.50	2.37	95	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52903 Date Analyzed: 2008-10-01 Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Nitrate-N		mg/L	2.50	2.38	95	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52903 Date Analyzed: 2008-10-01 Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chloride		mg/L	12.5	12.7	102	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52903 Date Analyzed: 2008-10-01 Analyzed By: RD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Fluoride		mg/L	2.50	2.48	99	90 - 110	2008-10-01

Standard (CCV-1)

QC Batch: 52938 Date Analyzed: 2008-10-01 Analyzed By: KB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	52.6	105	80 - 120	2008-10-01
1,1-Dichloroethene		µg/L	50.0	43.0	86	80 - 120	2008-10-01

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloroform		µg/L	50.0	53.0	106	80 - 120	2008-10-01
1,2-Dichloropropane		µg/L	50.0	55.6	111	80 - 120	2008-10-01
Toluene		µg/L	50.0	55.2	110	80 - 120	2008-10-01
Chlorobenzene		µg/L	50.0	52.2	104	80 - 120	2008-10-01
Ethylbenzene		µg/L	50.0	49.5	99	80 - 120	2008-10-01

Standard (ICV-1)

QC Batch: 52953 Date Analyzed: 2008-10-02 Analyzed By: SS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cyanide		mg/Kg	0.120	<1.94	0	-	2008-10-02

Standard (CCV-1)

QC Batch: 52953 Date Analyzed: 2008-10-02 Analyzed By: SS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Cyanide		mg/Kg	0.120	<1.94	0	-	2008-10-02

Standard (CCV-1)

QC Batch: 52958 Date Analyzed: 2008-10-02 Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	56.0	93	80 - 120	2008-10-02
Acenaphthylene		mg/L	60.0	59.4	99	80 - 120	2008-10-02
Acenaphthene		mg/L	60.0	59.1	98	80 - 120	2008-10-02
Dibenzofuran		mg/L	60.0	61.6	103	80 - 120	2008-10-02
Fluorene		mg/L	60.0	67.4	112	80 - 120	2008-10-02
Anthracene		mg/L	60.0	59.5	99	80 - 120	2008-10-02
Phenanthrene		mg/L	60.0	56.8	95	80 - 120	2008-10-02
Fluoranthene		mg/L	60.0	59.8	100	80 - 120	2008-10-02
Pyrene		mg/L	60.0	57.4	96	80 - 120	2008-10-02
Benzo(a)anthracene		mg/L	60.0	55.5	92	80 - 120	2008-10-02

continued ...

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chrysene		mg/L	60.0	57.6	96	80 - 120	2008-10-02
Benzo(b)fluoranthene		mg/L	60.0	61.4	102	80 - 120	2008-10-02
Benzo(k)fluoranthene		mg/L	60.0	60.9	102	80 - 120	2008-10-02
Benzo(a)pyrene		mg/L	60.0	64.0	107	80 - 120	2008-10-02
Indeno(1,2,3-cd)pyrene		mg/L	60.0	67.7	113	80 - 120	2008-10-02
Dibenzo(a,h)anthracene		mg/L	60.0	67.7	113	80 - 120	2008-10-02
Benzo(g,h,i)perylene		mg/L	60.0	66.1	110	80 - 120	2008-10-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		56.0	mg/L	1	60.0	93	80 - 120
Nitrobenzene-d5		60.0	mg/L	1	60.0	100	80 - 120
Terphenyl-d14		57.7	mg/L	1	60.0	96	80 - 120

Standard (ICV-1)

QC Batch: 52959 Date Analyzed: 2008-10-02 Analyzed By: DS

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Aroclor 1242 (PCB-1242)	[8]	mg/L	0.400	0.546	136	85 - 115	2008-10-02
Aroclor 1254 (PCB-1254)		mg/L	0.400	0.360	90	85 - 115	2008-10-02
Aroclor 1260 (PCB-1260)		mg/L	0.400	0.413	103	85 - 115	2008-10-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Deca chlorobiphenyl		0.114	mg/L	1	0.100	114	85 - 115

Standard (CCV-1)

QC Batch: 52959 Date Analyzed: 2008-10-02 Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Aroclor 1242 (PCB-1242)	[9]	mg/L	0.400	0.504	126	85 - 115	2008-10-02
Aroclor 1254 (PCB-1254)		mg/L	0.400	0.358	90	85 - 115	2008-10-02

continued ...

[8]Aroclor 1242 (PCB-1242) outside of control limits on CCV(ICV). CCV(ICV) component average is 111% which is within acceptable range. This is acceptable by Method 8000.

[9]Aroclor 1242 (PCB-1242) outside of control limits on CCV(ICV). CCV(ICV) component average is 110% which is within acceptable range. This is acceptable by Method 8000.

standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Aroclor 1260 (PCB-1260)		mg/L	0.400	0.456	114	85 - 115	2008-10-02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Deca chlorobiphenyl		0.110	mg/L	1	0.100	110	85 - 115

LAB Order ID # 8092924 Page ____ of ____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9, Lubbock, Texas 79424, Tel (806) 794-1296, Fax (806) 794-1298, 1 (800) 378-1296
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8808 Camp Bowie Blvd. West Suite 180, Ft. Worth, Texas 76116, Tel (817) 201-5260, Fax (817) 560-4336

Company Name: TALON LPE
Phone #: 432 238-4388
Address: (Street, City, Zip) 318 E TAYLOR HOBBS NM 88240
Fax #:
Contact Person: ED TAYLOR
E-mail:
Invoice to: (If different from above) NEW BOURNE OIL
Project #:
Project Name: PALOMA "29" STATE COM #2
Project Location (including state): LEA COUNTY NM
Sampler Signature: Ed T

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
174935	BH-1	1			X							X		9/26	9:40
936	BH-2	1			X							X		9/26	9:50
937	DRILL CUTTINGS	2			X							X		9/26	10:15

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD TSS pH	Moisture Content	CHLORIDES 4500 CL	SPLP 1312				Turn Around Time if different from standard	Hold
	X	X	X													T	T					X	
	X	X	X																			X	
	X	X	Y														X					X	

Relinquished by: Ed T Company: TALON Date: 9/29/08 Time: 4:00
Received by: Company: Date: Time: Temp°c:

Relinquished by: Company: Date: Time:
Received by: Company: Date: Time: Temp°c:

Relinquished by: Jan A. Tyler Company: TALON Date: 9/29/08 Time: 9:32 AM
Received by: Company: Date: 0929 or 0932 Time: Temp°c: 3.9

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: SEE ATTACHED SHEET FOR DRILL CUTTINGS
ASAP
Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C

Carrier # Carr

Summary Report

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: October 24, 2008

Work Order: 8101303

Project Location: Lea County, NM
Project Name: Paloma 28 St. Com. #2

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176227	BH-3	soil	2008-10-09	16:05	2008-10-10
176228	BH-4	soil	2008-10-09	16:20	2008-10-10

	BTEX				MTBE	TPH 418.1	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TRPHC	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
176227 - BH-3	<0.0100	<0.0100	<0.0100	<0.0100		<10.0	<50.0	<1.00
176228 - BH-4	<0.0100	<0.0100	<0.0100	<0.0100		<10.0	<50.0	<1.00

Sample: 176227 - BH-3

Param	Flag	Result	Units	RL
Chloride		**113**	mg/Kg	3.25

Sample: 176228 - BH-4

Param	Flag	Result	Units	RL
Chloride		**111**	mg/Kg	3.25

TraceAnalysis, Inc.

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[illegible] Fort Worth, Texas 76[illegible] 817•201•526[illegible]
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Eb Taylor
Talon LPE-Hobbs
318 E Taylor
Hobbs, NM, 88240

Report Date: October 24, 2008

Work Order: 8101303

Project Location: Lea County, NM
Project Name: Paloma 28 St. Com. #2
Project Number: Paloma 28 St. Com. #2

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
176227	BH-3	soil	2008-10-09	16:05	2008-10-10
176228	BH-4	soil	2008-10-09	16:20	2008-10-10

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Paloma 28 St. Com. #2 were received by TraceAnalysis, Inc. on 2008-10-10 and assigned to work order 8101303. Samples for work order 8101303 were received intact at a temperature of 3.9 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
TPH 418.1	E 418.1
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 8101303 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 176227 - BH-3

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	53228	Date Analyzed:	2008-10-13	Analyzed By:	MT
Prep Batch:	45592	Sample Preparation:	2008-10-13	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.23	mg/Kg	1	1.00	123	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.21	mg/Kg	1	1.00	121	54.4 - 176.2

Sample: 176227 - BH-3

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53610	Date Analyzed:	2008-10-24	Analyzed By:	RG
Prep Batch:	45900	Sample Preparation:	2008-10-23	Prepared By:	RG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**113**	mg/Kg	10	3.25

Sample: 176227 - BH-3

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	53555	Date Analyzed:	2008-10-23	Analyzed By:	CM
Prep Batch:	45864	Sample Preparation:		Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		<10.0	mg/Kg	1	10.0

Sample: 176227 - BH-3

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	53239	Date Analyzed:	2008-10-13	Analyzed By:	MN
Prep Batch:	45606	Sample Preparation:	2008-10-13	Prepared By:	MN

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		123	mg/Kg	1	100	123	49.5 - 185

Sample: 176227 - BH-3

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	53229	Date Analyzed:	2008-10-13	Analyzed By:	MT
Prep Batch:	45592	Sample Preparation:	2008-10-13	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.35	mg/Kg	1	1.00	135	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.38	mg/Kg	1	1.00	138	45.6 - 214.7

Sample: 176228 - BH-4

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	53228	Date Analyzed:	2008-10-13	Analyzed By:	MT
Prep Batch:	45592	Sample Preparation:	2008-10-13	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.30	mg/Kg	1	1.00	130	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	1	1.00	132	54.4 - 176.2

Sample: 176228 - BH-4

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	53610	Date Analyzed:	2008-10-24	Analyzed By:	RG
Prep Batch:	45900	Sample Preparation:	2008-10-23	Prepared By:	RG

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**111**	mg/Kg	10	3.25

Sample: 176228 - BH-4

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	53555	Date Analyzed:	2008-10-23	Analyzed By:	CM
Prep Batch:	45864	Sample Preparation:		Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		<10.0	mg/Kg	1	10.0

Sample: 176228 - BH-4

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	53239	Date Analyzed:	2008-10-13	Analyzed By:	MN
Prep Batch:	45606	Sample Preparation:	2008-10-13	Prepared By:	MN

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		141	mg/Kg	1	100	141	49.5 - 185

Sample: 176228 - BH-4

Laboratory: Lubbock
Analysis: TPH GRO
QC Batch: 53229
Prep Batch: 45592

Analytical Method: S 8015B
Date Analyzed: 2008-10-13
Sample Preparation: 2008-10-13

Prep Method: S 5035
Analyzed By: MT
Prepared By: MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.46	mg/Kg	1	1.00	146	55.3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.63	mg/Kg	1	1.00	163	45.6 - 214.7

Method Blank (1) QC Batch: 53228

QC Batch: 53228
Prep Batch: 45592

Date Analyzed: 2008-10-13
QC Preparation: 2008-10-13

Analyzed By: MT
Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00347	mg/Kg	0.01
Toluene		<0.00525	mg/Kg	0.01
Ethylbenzene		<0.00607	mg/Kg	0.01
Xylene		<0.00724	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.941	mg/Kg	1	1.00	94	69.3 - 110.2
4-Bromofluorobenzene (4-BFB)		0.708	mg/Kg	1	1.00	71	24.4 - 114.6

Method Blank (1) QC Batch: 53229

QC Batch: 53229
Prep Batch: 45592

Date Analyzed: 2008-10-13
QC Preparation: 2008-10-13

Analyzed By: MT
Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
GRO		<0.144	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	1.00	102	83.3 - 108.5

continued ...

method blank continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		0.813	mg/Kg	1	1.00	81	34.5 - 105.8

Method Blank (1) QC Batch: 53239

QC Batch: 53239
Prep Batch: 45606

Date Analyzed: 2008-10-13
QC Preparation: 2008-10-13

Analyzed By: MN
Prepared By: MN

Parameter	Flag	MDL Result	Units	RL
DRO		<6.77	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		137	mg/Kg	1	100	137	49.5 - 185

Method Blank (1) QC Batch: 53555

QC Batch: 53555
Prep Batch: 45864

Date Analyzed: 2008-10-23
QC Preparation: 2008-10-23

Analyzed By: CM
Prepared By: CM

Parameter	Flag	MDL Result	Units	RL
TRPHC		<1.06	mg/Kg	10

Method Blank (1) QC Batch: 53610

QC Batch: 53610
Prep Batch: 45900

Date Analyzed: 2008-10-24
QC Preparation: 2008-10-23

Analyzed By: RG
Prepared By: RG

Parameter	Flag	MDL Result	Units	RL
Chloride		<1.80	mg/Kg	3.25

Laboratory Control Spike (LCS-1)

QC Batch: 53228
Prep Batch: 45592

Date Analyzed: 2008-10-13
QC Preparation: 2008-10-13

Analyzed By: MT
Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.899	mg/Kg	1	1.00	<0.00347	90	80.5 - 115.5
Toluene	0.897	mg/Kg	1	1.00	<0.00525	90	80 - 114.7
Ethylbenzene	0.914	mg/Kg	1	1.00	<0.00607	91	77.1 - 114.2
Xylene	2.67	mg/Kg	1	3.00	<0.00724	89	77.6 - 114.5

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.923	mg/Kg	1	1.00	<0.00347	92	80.5 - 115.5	3	20
Toluene	0.903	mg/Kg	1	1.00	<0.00525	90	80 - 114.7	1	20
Ethylbenzene	0.932	mg/Kg	1	1.00	<0.00607	93	77.1 - 114.2	2	20
Xylene	2.72	mg/Kg	1	3.00	<0.00724	91	77.6 - 114.5	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.883	0.871	mg/Kg	1	1.00	88	87	74.2 - 114.7
4-Bromofluorobenzene (4-BFB)	0.819	0.866	mg/Kg	1	1.00	82	87	69.7 - 118.7

Laboratory Control Spike (LCS-1)

QC Batch: 53229 | Date Analyzed: 2008-10-13 | Analyzed By: MT
Prep Batch: 45592 | QC Preparation: 2008-10-13 | Prepared By: MT

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.98	mg/Kg	1	10.0	<0.144	90	73.1 - 114.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	9.78	mg/Kg	1	10.0	<0.144	98	73.1 - 114.7	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.921	0.975	mg/Kg	1	1.00	92	98	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	0.966	0.989	mg/Kg	1	1.00	97	99	70.3 - 116.1

Laboratory Control Spike (LCS-1)

QC Batch: 53239 | Date Analyzed: 2008-10-13 | Analyzed By: MN
Prep Batch: 45606 | QC Preparation: 2008-10-13 | Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	283	mg/Kg	1	250	<6.77	113	73.9 - 138

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	293	mg/Kg	1	250	<6.77	117	73.9 - 138	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	111	113	mg/Kg	1	100	111	113	49.5 - 185

Laboratory Control Spike (LCS-1)

QC Batch: 53555 | Date Analyzed: 2008-10-23 | Analyzed By: CM
Prep Batch: 45864 | QC Preparation: 2008-10-23 | Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	235	mg/Kg	1	250	<1.06	94	75.5 - 136

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	238	mg/Kg	1	250	<1.06	95	75.5 - 136	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 53610 | Date Analyzed: 2008-10-24 | Analyzed By: RG
Prep Batch: 45900 | QC Preparation: 2008-10-23 | Prepared By: RG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.4	mg/Kg	1	100	<1.80	99	96.5 - 104.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<1.80	101	96.5 - 104.4	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 176227

QC Batch: 53228 | Date Analyzed: 2008-10-13 | Analyzed By: MT
Prep Batch: 45592 | QC Preparation: 2008-10-13 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.02	mg/Kg	1	1.00	<0.00347	102	42.9 - 130.7
Toluene	1.07	mg/Kg	1	1.00	<0.00525	107	46.9 - 135.4
Ethylbenzene	1.17	mg/Kg	1	1.00	<0.00607	117	48.3 - 149.3
Xylene	3.46	mg/Kg	1	3.00	<0.00724	115	48.8 - 150.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.14	mg/Kg	1	1.00	<0.00347	114	42.9 - 130.7	11	20
Toluene	1.21	mg/Kg	1	1.00	<0.00525	121	46.9 - 135.4	12	20
Ethylbenzene	1.32	mg/Kg	1	1.00	<0.00607	132	48.3 - 149.3	12	20
Xylene	3.92	mg/Kg	1	3.00	<0.00724	131	48.8 - 150.9	12	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.07	1.21	mg/Kg	1	1	107	121	63.2 - 128.3
4-Bromofluorobenzene (4-BFB)	1.11	1.25	mg/Kg	1	1	111	125	61.5 - 161.2

Matrix Spike (MS-1) Spiked Sample: 176228

QC Batch: 53229 | Date Analyzed: 2008-10-13 | Analyzed By: MT
Prep Batch: 45592 | QC Preparation: 2008-10-13 | Prepared By: MT

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	12.5	mg/Kg	1	10.0	<0.144	125	48.9 - 155.8

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	13.0	mg/Kg	1	10.0	<0.144	130	48.9 - 155.8	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.17	1.14	mg/Kg	1	1	117	114	41.8 - 145.4
4-Bromofluorobenzene (4-BFB)	1.50	1.44	mg/Kg	1	1	150	144	50.3 - 197.8

Matrix Spike (MS-1) Spiked Sample: 176227

QC Batch: 53239 | Date Analyzed: 2008-10-13 | Analyzed By: MN
Prep Batch: 45606 | QC Preparation: 2008-10-13 | Prepared By: MN

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	267	mg/Kg	1	250	<6.77	107	50.7 - 134

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	285	mg/Kg	1	250	<6.77	114	50.7 - 134	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	133	136	mg/Kg	1	100	133	136	49.5 - 185

Matrix Spike (MS-1) Spiked Sample: 176227

QC Batch: 53555 | Date Analyzed: 2008-10-23 | Analyzed By: CM
Prep Batch: 45864 | QC Preparation: 2008-10-23 | Prepared By: CM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	268	mg/Kg	1	250	<1.06	107	10 - 354

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
TRPHC	273	mg/Kg	1	250	<1.06	109	10 - 354	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 177123

QC Batch: 53610 | Date Analyzed: 2008-10-24 | Analyzed By: RG
Prep Batch: 45900 | QC Preparation: 2008-10-23 | Prepared By: RG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	551	mg/Kg	10	500	42.07	102	74.7 - 123.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	562	mg/Kg	10	500	42.07	104	74.7 - 123.2	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 53228 Date Analyzed: 2008-10-13 Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0918	92	85 - 115	2008-10-13
Toluene		mg/Kg	0.100	0.0955	96	85 - 115	2008-10-13
Ethylbenzene		mg/Kg	0.100	0.0976	98	85 - 115	2008-10-13
Xylene		mg/Kg	0.300	0.287	96	85 - 115	2008-10-13

Standard (CCV-1)

QC Batch: 53228 Date Analyzed: 2008-10-13 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0978	98	85 - 115	2008-10-13
Toluene		mg/Kg	0.100	0.0955	96	85 - 115	2008-10-13
Ethylbenzene		mg/Kg	0.100	0.0951	95	85 - 115	2008-10-13
Xylene		mg/Kg	0.300	0.278	93	85 - 115	2008-10-13

Standard (ICV-1)

QC Batch: 53229 Date Analyzed: 2008-10-13 Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.898	90	85 - 115	2008-10-13

Standard (CCV-1)

QC Batch: 53229 Date Analyzed: 2008-10-13 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.874	87	85 - 115	2008-10-13

Standard (ICV-1)

QC Batch: 53239 Date Analyzed: 2008-10-13 Analyzed By: MN

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	264	106	85 - 115	2008-10-13

Standard (CCV-1)

QC Batch: 53239 Date Analyzed: 2008-10-13 Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	278	111	85 - 115	2008-10-13

Standard (ICV-1)

QC Batch: 53555 Date Analyzed: 2008-10-23 Analyzed By: CM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	85.4	85	80 - 120	2008-10-23

Standard (CCV-1)

QC Batch: 53555 Date Analyzed: 2008-10-23 Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	82.9	83	80 - 120	2008-10-23

Standard (ICV-1)

QC Batch: 53610 Date Analyzed: 2008-10-24 Analyzed By: RG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2008-10-24

Standard (CCV-1)

QC Batch: 53610 Date Analyzed: 2008-10-24 Analyzed By: RG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2008-10-24