TALON

AMARILLO
921 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 3428
Fax 512 989.3487

MIDLAND
2901 State Highway 349
Midland, Texas 79706
Phone 432.522.2133
Fax 432 522.2180

SAN ANTONIO
17170 Jordan Road
Suite 102
Selma, Texas 78154
Phone 210 579.0235
Fax 210.568 2191

TULSA
9906 East 43rd Street
Suite G
Tulsa, Oklahoma 74146
Phone 918.742 0871
Fax 918 742.0876

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88241
Phone 505 393.4261
Fax 505 393 4658

TYLER
719 West Front Street
Suite 255
Tyler, Texas 75702
Phone 903 531 9971
Fax 903.531.9979

HOUSTON
3233 West 11th Street
Suite 400
Houston, Texas 77008
Phone 713 861.0081
Fax 713 868.3208

NVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
EMERGENCY RESPONSE

Toll Free 866 742.0742
www talonlpe.com

February 9, 2009

Larry Johnson
New Mexico Oil Conservation Division
District 1 office
1625 French Dr.
Hobbs, New Mexico 88240

Re: **Request for pit closure of the Paloma Federal Com #1 pit.**

In December of 2009 Talon/LPE was contracted by Mewbourne Oil Company to perform the pit closure activities at the Paloma 21 Fed Com #1, API# 30-25-38817, Unit M Sec 21- T20S-R36E, in Lea county New Mexico. The C-144 for this pit closure was submitted to Paul Kautz and approved on September 29, 2008.

Talon contacted Paul Kautz on December 2, 2008 to give forty eight notice of intent to proceed with trench burial and was given verbal permission to proceed. Talon 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. Upon completion of mixing the drill cuttings, Eb Taylor with Talon called Paul Kautz on December 18, 2008 to notify him of the planned sampling of the drill cuttings. Eb Taylor received a call from Jeff Leking on December 19, 2008 and the sampling event was scheduled for December 22, 2008 at 8:30 AM. Jeff did not show up and the sampling event proceeded. A five point composite sample was collected from the drill cuttings and 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 south side of the reserve pit approximately 150' x 40' x 20', 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 January 9, 2009 Eb Taylor with Talon/LPE collected a five point composition sample from the pit floor and sent them to Trace Analysis to be analyzed in compliance with 19.15.17.13NMAC for official analytical (see attached analytical). The area was backfilled and contoured to the surrounding area.

A burial marker was placed at 32° 33' 176 N 103° 21' 967 W.

This property is owned by the Dale Cooper family trust and a deed notice was filed with the Lea county New Mexico County Clerk.

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.

Respectfully submitted,

Eb Taylor

FOR RECORD ONLY
WELL FILE
ENVIRONMENTAL ENGINEER

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

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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
x 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: P.O. Box 5270, Hobbs NM 88241
Facility or well name: Paloma 21 Federal Com #1
API Number: 30-025-38817 OCD Permit Number:
U/L or Qtr/Qtr M Section 21 Township 20S Range 36E County: Lea
Center of Proposed Design: Latitude N 32° 32'11" Longitude W 103° 21'55" NAD: x 1927 ☐ 1983
Surface Owner: ☐ Federal ☐ State x Private ☐ Tribal Trust or Indian Allotment

2.
x **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: x Drilling x Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
x Lined ☐ Unlined Liner type: Thickness 20 mil x LLDPE ☐ HDPE ☐ PVC ☐ Other
x String-Reinforced
Liner Seams: x Welded x 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

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): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

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

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

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

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

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

x **Closure Completion Date: 01/21/2009**

22.
Closure Method:

☐ Waste Excavation and Removal x 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.***

x Proof of Closure Notice (surface owner and division)

x Proof of Deed Notice (required for on-site closure)

x Plot Plan (for on-site closures and temporary pits)

☐ Confirmation Sampling Analytical Results (if applicable)

x Waste Material Sampling Analytical Results (required for on-site closure)

☐ Disposal Facility Name and Permit Number

x Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

x Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 32° 33'176" N Longitude 103° 21'967" NAD: x1927 ☐ 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): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

Submit To Appropriate District Office
Two Copies
District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd , Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-105
July 17, 2008

1. WELL API NO.
30-025-38817

2 Type of Lease
☐ STATE FEE ☒ FED/INDIAN

3 State Oil & Gas Lease No NM 89873

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4 Reason for filing:

☐ **COMPLETION REPORT** (Fill in boxes #1 through #31 for State and Fee wells only)

x **C-144 CLOSURE ATTACHMENT** (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33, attach this and the plat to the C-144 closure report in accordance with 19 15 17.13.K NMAC)

5 Lease Name or Unit Agreement Name Paloma

6. Well Number. 21 Federal Com #1

7 Type of Completion:
x NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER

8. Name of Operator
Mewbourne Oil Company

9 OGRID 14744

10. Address of Operator

P.O Box 5270 Hobbs New Mexico 88241

11. Pool name or Wildcat

12.Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:										
BH:										

13. Date Spudded	14 Date T D. Reached	15. Date Rig Released	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
		11/28/08		

18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21 Type Electric and Other Logs Run

22 Producing Interval(s). of this completion - Top, Bottom, Name

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB /FT	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25 TUBING RECORD

SIZE	DEPTH SET	PACKER SET

26 Perforation record (interval, size, and number)

27 ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

28. PRODUCTION

Date First Production	Production Method *(Flowing, gas lift, pumping - Size and type pump)*	Well Status *(Prod or Shut-in)*

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl	Gas - Oil Ratio

Flow Tubing Press	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl	Gas - MCF	Water - Bbl	Oil Gravity - API - *(Corr.)*

29 Disposition of Gas *(Sold, used for fuel vented, etc.)*

30. Test Witnessed By

31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit

33. If an on-site burial was used at the well, report the exact location of the on-site burial

Latitude 32° 33' 176" N Longitude 103° 21' 961" W NAD 1927 1983

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature [signature] Printed Name M M Young Title District Manager Date 6/10/09

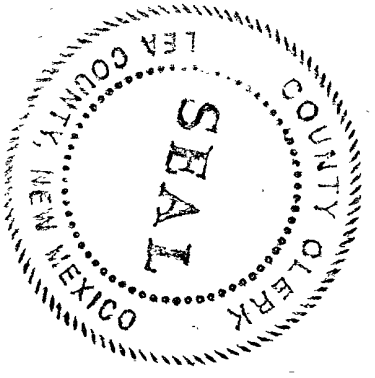
E-mail Address

9
1

05543

Deed Notification

Drill cuttings produced during the drilling operations on the Mewbourne Oil Company Paloma 21 Fed. Com #1 well located in Unit letter M of Section 21, T20S, R36E, of Lea County, New Mexico are buried on this property. A steel marker placed at 32° 33.174 N, 103° 21.969 W marks the center of the burial site. The contents are encapsulated in a 20 mil string reinforced LLDPE liner and extend from 4 feet to 18 feet below ground level. The burial location extends 20 feet to the south, 20 feet to the north, 60 feet to the east, and 60 feet to the west of the marker.



N.M. Young
District Manager
Hobbs, N.M.

Signed 6/10/2009 by NM Young of Mewbourne Oil Company

OFFICIAL SEAL
Jackie L. Lathan
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 7/18/2012

Jackie L Lathan
Notary

Commission expires 7/18/2012

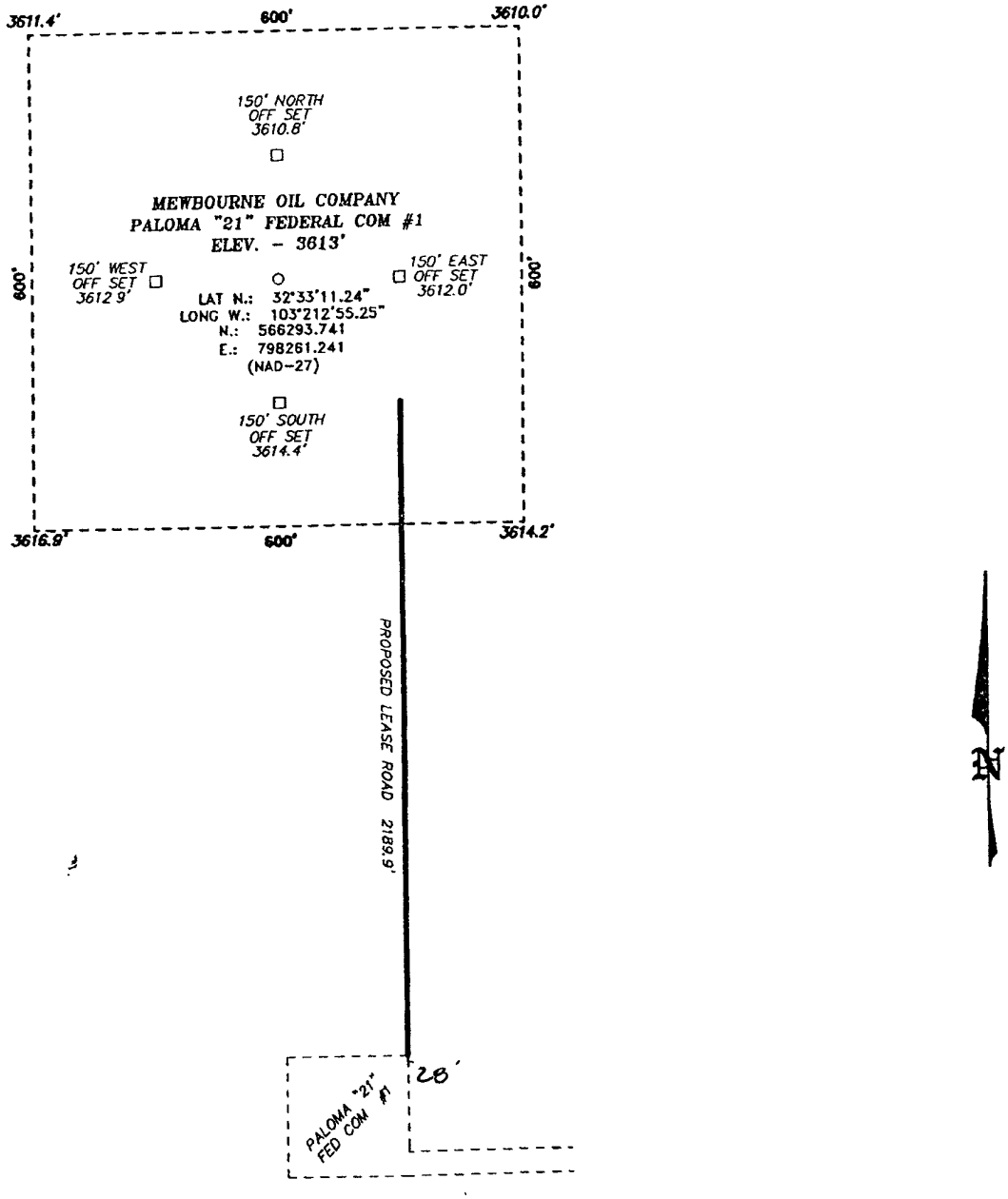
STATE OF NEW MEXICO
COUNTY OF LEA
FILED

JUN 10 2009

at 11:56 o'clock A M
and recorded in Book
Page
Pat Chappelle, Lea County Clerk
By Deputy

05543

SECTION 21, TOWNSHIP 20 SOUTH, RANGE 36 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



DRIVING DIRECTIONS:

FROM THE JUNCTION MADDOX, AND TUFFY COOPER, GO WEST 0.9 MILES TO HOUSE, CONTINUE WEST 1.9 MILES WEST TO LEASE ROAD, GO 0.2 MILES NORTHWEST; THENCE 0.7 MILES WEST TO DRY HOLE, FROM DRY HOLE GO WEST 0.2 MILES TO PALOMA 28 #1 LOCATION AND PROPOSED LEASE ROAD.

MEWBOURNE OIL COMPANY

REF: PALOMA "21" FEDERAL COM #1 / WELL PAD TOPO

THE PALOMA "21" FEDERAL COM #1 LOCATED 660' FROM THE SOUTH LINE AND 660' FROM THE WEST LINE OF SECTION 21, TOWNSHIP 20 SOUTH, RANGE 36 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O BOX 1786 – HOBBS, NEW MEXICO

W.O. Number: 18965	Drawn By: J. SMALL		
Date: 12-24-2007	Disk: JMS 18965W	Survey Date: 12-21-2007	Sheet 1 of 1 Sheets

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

July 30, 2008

Dale Cooper Family Trust
Box 6
Monument, NM 88265

Dear Clay Cooper:

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.

~~Paloma 21 Fed Com #1~~	Paloma 21 Fed Com #2
Unit Letter M	Unit Letter L
Sec 21, T20S, R36E	Sec 21, T20S, R36E
Lea Co., NM	Lea Co., NM

Thank you,

Charles L. Martin
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:
Clay Cooper
Dale Cooper Family trust
Box 6
Monument, NM 88265

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Betty R Cooper ☐ Agent ☐ Addressee

B. Received by (Printed Name) Betty R. Cooper
C. Date of Delivery 8-1-08

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

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 7007 2560 0003 0324 9017

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-08-02686	**Request or PO Number:**	812238
Client Sample ID:	183416 SPLP EXTRACT	**ARS Sample ID:**	ARS1-08-02686-001
Sample Collection Date:	12/22/08 08 45	**Date Received:**	12/30/2008
Sample Matrix:	Aqueous	**Report Date:**	01/06/09 10:31

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
RA-226	0 067	0 134	0.103	0.038	pCi/L	ARS-010/EPA 904.0	1/5/09 16.50	GJ	95 12%
RA-228	-0 575	0 557	1 063	0.493	pCi/L	ARS-010/EPA 904.0	1/2/09 14.02	GJ	63.20%

NOTES: For RA-228, the LCSD fell outside the acceptance criteria biased low; however, the samples did meet duplicate criteria. Data is being reported as valid per technical review.

Project Manager Review

LELAP Certificate # 30658 NELAP Certificate # E87558

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: December 30, 2008

Work Order: 8122318

Project Location: Lea County, NM
Project Name: Paloma 21 Fed. Com. #1
Project Number: MEWBOU036 Pit

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
183416	Insitu Cuttings	soil	2008-12-22	08:45	2008-12-23

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.

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 21 Fed. Com. #1 were received by TraceAnalysis, Inc. on 2008-12-23 and assigned to work order 8122318 Samples for work order 8122318 were received intact at a temperature of 4.6 deg. C.

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

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
MTBE	S 8021B
SPLP Ag	S 6010B
SPLP As	S 6010B
SPLP Ba	S 6010B
SPLP Cd	S 6010B
SPLP Cl	E 300.0
SPLP Cr	S 6010B
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 8122318 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: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method.	S 8021B	Prep Method.	S 5035
QC Batch:	55469	Date Analyzed:	2008-12-23	Analyzed By:	ER
Prep Batch.	47407	Sample Preparation.	2008-12-23	Prepared By.	ER

Parameter	Flag	Result	RL Units	Dilution	RL
MTBE		<0 0100	mg/Kg	1	0.0100
Benzene		**0.0104**	mg/Kg	1	0.0100
Toluene		**0.0681**	mg/Kg	1	0.0100
Ethylbenzene		**0.162**	mg/Kg	1	0.0100
Xylene		**0.108**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1.00	100	59 - 136.1
4-Bromofluorobenzene (4-BFB)		1.23	mg/Kg	1	1.00	123	54.4 - 176.2

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Ag	Analytical Method:	S 6010B	Prep Method.	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By.	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24	Prepared By:	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

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

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP As	Analytical Method.	S 6010B	Prep Method:	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24	Prepared By:	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

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

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Ba	Analytical Method:	S 6010B	Prep Method.	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24	Prepared By.	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Barium		**0.369**	mg/L	1	0.100

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis.	SPLP Cd	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	55520	Date Analyzed·	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	SPLP Extraction·	2008-12-24	Prepared By.	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Cadmium		<0 00500	mg/L	1	0.00500

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Cl	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	55608	Date Analyzed:	2008-12-30	Analyzed By:	RD
Prep Batch:	47527	SPLP Extraction:	2008-12-28	Prepared By:	RD
		Sample Preparation:	2008-12-30	Prepared By:	RD

Parameter	Flag	Result	RL Units	Dilution	RL
SPLP Chloride		**55.3**	mg/L	10	0.500

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Cr	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24	Prepared By:	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Chromium		**0.00500**	mg/L	1	0.00500

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Cyanide	Analytical Method:	SM 4500-CN C,E	Prep Method:	SPLP 1312
QC Batch:	55619	Date Analyzed:	2008-12-29	Analyzed By:	SS
Prep Batch:	47538	SPLP Extraction.	2008-12-28	Prepared By:	SS
		Sample Preparation:	2008-12-29	Prepared By:	SS

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

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Fluoride	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	55608	Date Analyzed:	2008-12-30	Analyzed By:	RD
Prep Batch:	47527	SPLP Extraction:	2008-12-28	Prepared By.	RD
		Sample Preparation:	2008-12-30	Prepared By:	RD

Parameter	Flag	RL Result	Units	Dilution	RL
SPLP Fluoride		**0.223**	mg/L	1	0.200

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Hg	Analytical Method.	S 7470A	Prep Method.	N/A
QC Batch:	55514	Date Analyzed:	2008-12-25	Analyzed By:	TP
Prep Batch:	47443	Sample Preparation:	2008-12-24	Prepared By:	TP

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

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP NO3 (IC)	Analytical Method:	E 300.0	Prep Method:	SPLP 1312
QC Batch:	55608	Date Analyzed.	2008-12-30	Analyzed By:	RD
Prep Batch	47527	SPLP Extraction:	2008-12-28	Prepared By:	RD
		Sample Preparation:	2008-12-30	Prepared By.	RD

Parameter	Flag	Result	RL Units	Dilution	RL
Nitrate-N		<0.200	mg/L	1	0.200

Sample: 183416 - Insitu Cuttings

Laboratory.	Lubbock				
Analysis:	SPLP PAH	Analytical Method:	S 8270C	Prep Method.	SPLP 1312
QC Batch:	55563	Date Analyzed:	2008-12-29	Analyzed By:	MN
Prep Batch:	47490	SPLP Extraction:	2008-12-28	Prepared By:	MN
		Sample Preparation:	2008-12-29	Prepared By:	MN

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		0.0558	mg/L	1	0.0800	70	37.4 - 123
Nitrobenzene-d5		0.0551	mg/L	1	0.0800	69	34.3 - 130
Terphenyl-d14		0.0594	mg/L	1	0.0800	74	10 - 252

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Pb	Analytical Method:	S 6010B	Prep Method.	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By.	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24	Prepared By.	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

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

Sample: 183416 - Insitu Cuttings

Laboratory	Lubbock				
Analysis:	SPLP PCB	Analytical Method:	S 8082	Prep Method.	SPLP 1312
QC Batch.	55549	Date Analyzed:	2008-12-29	Analyzed By:	DS
Prep Batch:	47476	SPLP Extraction.	2008-12-28	Prepared By:	DS
		Sample Preparation:	2008-12-29	Prepared By:	DS

Parameter	Flag	Result	RL 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		0.000585	mg/L	1	0.000500	117	10 - 128

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Se	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24	Prepared By:	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

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

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP U	Analytical Method:	S 6010B	Prep Method:	SPLP 1312
QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	SPLP Extraction:	2008-12-24	Prepared By:	KV
		Sample Preparation:	2008-12-25	Prepared By:	KV

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

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	SPLP Volatiles	Analytical Method:	S 8260B	Prep Method:	SPLP 1312
QC Batch:	55564	Date Analyzed:	2008-12-28	Analyzed By:	KB
Prep Batch:	47491	SPLP Extraction	2008-12-27	Prepared By:	KB
		Sample Preparation:	2008-12-28	Prepared By:	KB

Parameter	Flag	Result	RL Units	Dilution	RL
Bromochloromethane		<1.00	µg/L	1	1.00
Dichlorodifluoromethane		<1.00	µg/L	1	1.00
Chloromethane (methyl chloride)		<1.00	µg/L	1	1.00
Vinyl Chloride		<1.00	µg/L	1	1.00
Bromomethane (methyl bromide)		<5.00	µg/L	1	5.00
Chloroethane		<1.00	µg/L	1	1.00
Trichlorofluoromethane		<1.00	µg/L	1	1.00
Acetone		**11.1**	µg/L	1	10.0
Iodomethane (methyl iodide)		<5.00	µg/L	1	5.00
Carbon Disulfide		<1.00	µg/L	1	1.00
Acrylonitrile		<1.00	µg/L	1	1.00
2-Butanone (MEK)		<5.00	µg/L	1	5.00
4-Methyl-2-pentanone (MIBK)		<5.00	µg/L	1	5.00
2-Hexanone		<5.00	µg/L	1	5.00
trans 1,4-Dichloro-2-butene		<10.0	µg/L	1	10.0
1,1-Dichloroethene		<1.00	µg/L	1	1.00
Methylene chloride		<5.00	µg/L	1	5.00
MTBE		<1.00	µg/L	1	1.00
trans-1,2-Dichloroethene		<1.00	µg/L	1	1.00

continued ...

sample 183416 continued ...

Parameter	Flag	Result	RL	Units	Dilution	RL
1,1-Dichloroethane		<1.00		µg/L	1	1.00
cis-1,2-Dichloroethene		<1.00		µg/L	1	1.00
2,2-Dichloropropane		<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
1,1-Dichloropropene		<1.00		µg/L	1	1.00
Benzene		<1.00		µg/L	1	1.00
Carbon Tetrachloride		<1.00		µg/L	1	1.00
1,2-Dichloropropane		<1.00		µg/L	1	1.00
Trichloroethene (TCE)		<1.00		µg/L	1	1.00
Dibromomethane (methylene bromide)		<1.00		µg/L	1	1.00
Bromodichloromethane		<1.00		µg/L	1	1.00
2-Chloroethyl vinyl ether		<5.00		µg/L	1	5.00
cis-1,3-Dichloropropene		<1.00		µg/L	1	1.00
trans-1,3-Dichloropropene		<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
1,3-Dichloropropane		<1.00		µg/L	1	1.00
Dibromochloromethane		<1.00		µg/L	1	1.00
1,2-Dibromoethane (EDB)		<1.00		µg/L	1	1.00
Tetrachloroethene (PCE)		**2.53**		µg/L	1	1.00
Chlorobenzene		<1.00		µg/L	1	1.00
1,1,1,2-Tetrachloroethane		<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
Bromoform		<1.00		µg/L	1	1.00
Styrene		<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
2-Chlorotoluene		<1.00		µg/L	1	1.00
1,2,3-Trichloropropane		<1.00		µg/L	1	1.00
Isopropylbenzene		<1.00		µg/L	1	1.00
Bromobenzene		<1.00		µg/L	1	1.00
n-Propylbenzene		<1.00		µg/L	1	1.00
1,3,5-Trimethylbenzene		<1.00		µg/L	1	1.00
tert-Butylbenzene		<1.00		µg/L	1	1.00
1,2,4-Trimethylbenzene		<1.00		µg/L	1	1.00
1,4-Dichlorobenzene (para)		<1.00		µg/L	1	1.00
sec-Butylbenzene		<1.00		µg/L	1	1.00
1,3-Dichlorobenzene (meta)		<1.00		µg/L	1	1.00
p-Isopropyltoluene		<1.00		µg/L	1	1.00
4-Chlorotoluene		<1.00		µg/L	1	1.00

continued ...

sample 183416 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
1,2-Dichlorobenzene (ortho)		<1.00	µg/L	1	1.00
n-Butylbenzene		<1.00	µg/L	1	1 00
1,2-Dibromo-3-chloropropane		<5.00	µg/L	1	5.00
1,2,3-Trichlorobenzene		<5.00	µg/L	1	5.00
1,2,4-Trichlorobenzene		<5.00	µg/L	1	5.00
Naphthalene		<5.00	µg/L	1	5.00
Hexachlorobutadiene		<5.00	µg/L	1	5.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.3	µg/L	1	50.0	105	70 - 130
Toluene-d8		50.5	µg/L	1	50.0	101	70 - 130
4-Bromofluorobenzene (4-BFB)		45.9	µg/L	1	50.0	92	70 - 130

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	55597	Date Analyzed:	2008-12-30	Analyzed By:	CM
Prep Batch.	47512	Sample Preparation:	2008-12-30	Prepared By:	CM

Parameter	Flag	RL Result	Units	Dilution	RL
TRPHC		**191**	mg/Kg	1	10.0

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	55481	Date Analyzed:	2008-12-23	Analyzed By:	
Prep Batch:	47416	Sample Preparation:	2008-12-23	Prepared By:	

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		101	mg/Kg	1	100	101	57.5 - 139

Sample: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	55470	Date Analyzed:	2008-12-23	Analyzed By:	ER
Prep Batch:	47407	Sample Preparation:	2008-12-23	Prepared By.	ER

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**12.2**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.00	mg/Kg	1	1 00	100	55 3 - 161.9
4-Bromofluorobenzene (4-BFB)		1.18	mg/Kg	1	1 00	118	45.6 - 214.7

Method Blank (1) QC Batch: 55469

QC Batch:	55469	Date Analyzed:	2008-12-23	Analyzed By:	ER
Prep Batch:	47407	QC Preparation:	2008-12-23	Prepared By:	ER

Parameter	Flag	MDL Result	Units	RL
MTBE		<0.00260	mg/Kg	0.01
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)		0.981	mg/Kg	1	1.00	98	69.3 - 110.2
4-Bromofluorobenzene (4-BFB)		0.959	mg/Kg	1	1.00	96	24.4 - 114.6

Method Blank (1) QC Batch: 55470

QC Batch:	55470	Date Analyzed:	2008-12-23	Analyzed By:	ER
Prep Batch:	47407	QC Preparation:	2008-12-23	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)		1.03	mg/Kg	1	1.00	103	83 3 - 108.5
4-Bromofluorobenzene (4-BFB)		0.904	mg/Kg	1	1.00	90	34.5 - 105.8

Method Blank (1) QC Batch: 55481

QC Batch: 55481 | Date Analyzed: 2008-12-23 | Analyzed By:
Prep Batch: 47416 | QC Preparation: 2008-12-23 | Prepared By:

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		99.0	mg/Kg	1	100	99	72.4 - 150

Method Blank (1) QC Batch: 55514

QC Batch: 55514 | Date Analyzed. 2008-12-25 | Analyzed By: TP
Prep Batch: 47443 | QC Preparation: 2008-12-24 | Prepared By: TP

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

Method Blank (1) QC Batch: 55520

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation. 2008-12-24 | Prepared By: KV

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

Method Blank (1) QC Batch: 55520

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Parameter	Flag	MDL Result	Units	RL
SPLP Lead		<0 00320	mg/L	0.01

Method Blank (1) QC Batch: 55520

QC Batch:	55520	Date Analyzed.	2008-12-26	Analyzed By:	RR
Prep Batch	47446	QC Preparation:	2008-12-24	Prepared By:	KV

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

Method Blank (1) QC Batch: 55520

QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch·	47446	QC Preparation.	2008-12-24	Prepared By:	KV

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

Method Blank (1) QC Batch: 55520

QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	QC Preparation:	2008-12-24	Prepared By:	KV

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

Method Blank (1) QC Batch: 55520

QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	QC Preparation:	2008-12-24	Prepared By:	KV

Parameter	Flag	MDL Result	Units	RL
SPLP Chromium		<0.000900	mg/L	0.005

Method Blank (1) QC Batch: 55520

QC Batch:	55520	Date Analyzed:	2008-12-26	Analyzed By.	RR
Prep Batch:	47446	QC Preparation:	2008-12-24	Prepared By.	KV

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

Method Blank (1) QC Batch: 55520

QC Batch:	55520	Date Analyzed.	2008-12-26	Analyzed By:	RR
Prep Batch:	47446	QC Preparation:	2008-12-24	Prepared By:	KV

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

Method Blank (1) QC Batch: 55549

QC Batch:	55549	Date Analyzed:	2008-12-29	Analyzed By:	DS
Prep Batch.	47476	QC Preparation.	2008-12-29	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		0.000477	mg/L	1	0.000500	95	10 - 128

Method Blank (1) QC Batch: 55563

QC Batch:	55563	Date Analyzed:	2008-12-29	Analyzed By:	MN
Prep Batch:	47490	QC Preparation:	2008-12-29	Prepared By:	MN

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		0.0406	mg/L	1	0.0800	51	10 - 146
Nitrobenzene-d5		0.0398	mg/L	1	0.0800	50	10 - 141
Terphenyl-d14		0.0537	mg/L	1	0.0800	67	10 - 266

Method Blank (1) QC Batch: 55564

QC Batch:	55564	Date Analyzed:	2008-12-28	Analyzed By:	KB
Prep Batch:	47491	QC Preparation:	2008-12-28	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		0.0700	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

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Parameter	Flag	MDL Result	Units	RL
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
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		0.0700	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		0.0900	µg/L	1
1,2,3-Trichloropropane		<0.458	µg/L	1
Isopropylbenzene		0.100	µg/L	1
Bromobenzene		<0.106	µg/L	1
n-Propylbenzene		0.150	µg/L	1
1,3,5-Trimethylbenzene		0.0900	µg/L	1
tert-Butylbenzene		<0.107	µg/L	1
1,2,4-Trimethylbenzene		0.100	µg/L	1

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Parameter	Flag	MDL Result	Units	RL
1,4-Dichlorobenzene (para)		<0.217	µg/L	1
sec-Butylbenzene		0.180	µg/L	1
1,3-Dichlorobenzene (meta)		0.100	µg/L	1
p-Isopropyltoluene		0.150	µg/L	1
4-Chlorotoluene		0.100	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.100	µg/L	1
n-Butylbenzene		0.220	µg/L	1
1,2-Dibromo-3-chloropropane		<0.690	µg/L	5
1,2,3-Trichlorobenzene		0.150	µg/L	5
1,2,4-Trichlorobenzene		<0.155	µg/L	5
Naphthalene		<0.594	µg/L	5
Hexachlorobutadiene		0.570	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.4	µg/L	1	50.0	101	70 - 130
Toluene-d8		50.3	µg/L	1	50.0	101	70 - 130
4-Bromofluorobenzene (4-BFB)		46.6	µg/L	1	50.0	93	70 - 130

Method Blank (1) QC Batch: 55597

QC Batch: 55597 | Date Analyzed: 2008-12-30 | Analyzed By: CM
Prep Batch: 47512 | QC Preparation: 2008-12-30 | Prepared By: CM

Parameter	Flag	MDL Result	Units	RL
TRPHC		<5.28	mg/Kg	10

Method Blank (1) QC Batch: 55608

QC Batch: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

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

Method Blank (1) QC Batch: 55608

QC Batch: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

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

Method Blank (1) QC Batch: 55608

QC Batch: 55608 Date Analyzed: 2008-12-30 Analyzed By: RD
Prep Batch: 47527 QC Preparation: 2008-12-30 Prepared By: RD

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

Method Blank (1) QC Batch: 55619

QC Batch: 55619 Date Analyzed: 2008-12-29 Analyzed By: SS
Prep Batch: 47538 QC Preparation: 2008-12-29 Prepared By: SS

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

Laboratory Control Spike (LCS-1)

QC Batch: 55469 Date Analyzed: 2008-12-23 Analyzed By: ER
Prep Batch: 47407 QC Preparation: 2008-12-23 Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
MTBE	1.09	mg/Kg	1	1.00	<0.00260	109	77.5 - 118.4
Benzene	1.02	mg/Kg	1	1.00	<0.00347	102	80.5 - 115.5
Toluene	1.02	mg/Kg	1	1.00	<0.00525	102	80 - 114.7
Ethylbenzene	1.01	mg/Kg	1	1.00	<0.00607	101	77.1 - 114.2
Xylene	3.05	mg/Kg	1	3.00	<0.00724	102	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
MTBE	1.09	mg/Kg	1	1.00	<0.00260	109	77.5 - 118.4	0	20
Benzene	1.02	mg/Kg	1	1.00	<0.00347	102	80.5 - 115.5	0	20
Toluene	1.02	mg/Kg	1	1.00	<0.00525	102	80 - 114.7	0	20
Ethylbenzene	1.01	mg/Kg	1	1.00	<0.00607	101	77.1 - 114.2	0	20

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control spikes continued ...

Param	LCSD Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Xylene	3.06	mg/Kg	1	3.00	<0.00724	102	77.6 - 114.5	0	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)	1.00	0.946	mg/Kg	1	1.00	100	95	74.2 - 114.7
4-Bromofluorobenzene (4-BFB)	1.01	0.980	mg/Kg	1	1.00	101	98	69.7 - 118.7

Laboratory Control Spike (LCS-1)

QC Batch: 55470 | Date Analyzed: 2008-12-23 | Analyzed By: ER
Prep Batch: 47407 | QC Preparation: 2008-12-23 | Prepared By: ER

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.96	mg/Kg	1	10.0	<0.144	100	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	9.89	mg/Kg	1	10.0	<0.144	99	73.1 - 114.7	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
Trifluorotoluene (TFT)	0.978	0.959	mg/Kg	1	1.00	98	96	77.4 - 111.4
4-Bromofluorobenzene (4-BFB)	0.964	0.944	mg/Kg	1	1.00	96	94	70.3 - 116.1

Laboratory Control Spike (LCS-1)

QC Batch: 55481 | Date Analyzed: 2008-12-23 | Analyzed By:
Prep Batch: 47416 | QC Preparation: 2008-12-23 | Prepared By:

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	267	mg/Kg	1	250	<14.5	107	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	265	mg/Kg	1	250	<14.5	106	73.4 - 123	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
n-Triacontane	95.5	98.1	mg/Kg	1	100	96	98	57.5 - 139

Laboratory Control Spike (LCS-1)

QC Batch: 55514 | Date Analyzed: 2008-12-25 | Analyzed By: TP
Prep Batch: 47443 | QC Preparation: 2008-12-24 | Prepared By: TP

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Mercury	0.00103	mg/L	1	0.00100	<0.0000251	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 Mercury	0.000994	mg/L	1	0.00100	<0.0000251	99	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cadmium	0.246	mg/L	1	0.250	<0.00140	98	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	0.240	mg/L	1	0.250	<0.00140	96	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | 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	0.495	mg/L	1	0.500	<0.00320	99	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch. 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Selenium	0.455	mg/L	1	0.500	<0.0131	91	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	0.444	mg/L	1	0.500	<0.0131	89	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Arsenic	0.471	mg/L	1	0.500	<0.00430	94	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	0.462	mg/L	1	0.500	<0.00430	92	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Barium	0.981	mg/L	1	1.00	<0.00170	98	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	0.962	mg/L	1	1.00	<0.00170	96	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chromium	0.0900	mg/L	1	0.100	<0.000900	90	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 Chromium	0.0870	mg/L	1	0.100	<0.000900	87	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Silver	0.114	mg/L	1	0.125	<0.00210	91	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	0.112	mg/L	1	0.125	<0.00210	90	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: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP U	0.476	mg/L	1	0.500	<0.0105	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
SPLP U	0.458	mg/L	1	0.500	<0.0105	92	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: 55549 | Date Analyzed: 2008-12-29 | Analyzed By: DS
Prep Batch: 47476 | QC Preparation: 2008-12-29 | Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit
Aroclor 1260 (PCB-1260)	0.00218	mg/L	1	0.00200	<0.0000331	109	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)	0.00235	mg/L	1	0.00200	<0.0000331	118	10 - 128	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
Deca chlorobiphenyl	0.000500	0.000499	mg/L	1	0.000500	100	100	10 - 128

Laboratory Control Spike (LCS-1)

QC Batch: 55563 | Date Analyzed: 2008-12-29 | Analyzed By: MN
Prep Batch: 47490 | QC Preparation: 2008-12-29 | Prepared By: MN

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0450	mg/L	1	0.0800	<0.0000853	56	10 - 141
Acenaphthylene	0.0585	mg/L	1	0.0800	<0.0000768	73	10 - 152

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec	Rec. Limit
Acenaphthene	0.0574	mg/L	1	0.0800	<0.000103	72	10 - 151
Dibenzofuran	0.0538	mg/L	1	0.0800	<0.000200	67	10 - 148
Fluorene	0.0651	mg/L	1	0.0800	<0.0000861	81	10 - 172
Anthracene	0.0550	mg/L	1	0.0800	<0.000170	69	19.6 - 172
Phenanthrene	0.0573	mg/L	1	0.0800	<0.0000884	72	22.5 - 172
Fluoranthene	0.0592	mg/L	1	0.0800	<0.0000969	74	17.3 - 187
Pyrene	0.0614	mg/L	1	0.0800	<0.0000855	77	14.9 - 199
Benzo(a)anthracene	0.0595	mg/L	1	0.0800	<0.0000703	74	19.4 - 185
Chrysene	0.0631	mg/L	1	0.0800	<0.000113	79	18.4 - 188
Benzo(b)fluoranthene	0.0592	mg/L	1	0.0800	<0.000134	74	10 - 193
Benzo(k)fluoranthene	0.0623	mg/L	1	0.0800	<0.000227	78	27.8 - 196
Benzo(a)pyrene	0.0688	mg/L	1	0.0800	<0.000200	86	12.4 - 205
Indeno(1.2,3-cd)pyrene	0.0612	mg/L	1	0.0800	<0.000253	76	10 - 198
Dibenzo(a.h)anthracene	0.0603	mg/L	1	0.0800	<0.000180	75	10 - 172
Benzo(g,h,i)perylene	0.0700	mg/L	1	0.0800	<0.000158	88	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	0.0456	mg/L	1	0.0800	<0.0000853	57	10 - 141	1	20
Acenaphthylene	0.0595	mg/L	1	0.0800	<0.0000768	74	10 - 152	2	20
Acenaphthene	0.0580	mg/L	1	0.0800	<0.000103	72	10 - 151	1	20
Dibenzofuran	0.0541	mg/L	1	0.0800	<0.000200	68	10 - 148	1	20
Fluorene	0.0650	mg/L	1	0.0800	<0.0000861	81	10 - 172	0	20
Anthracene	0.0550	mg/L	1	0.0800	<0.000170	69	19.6 - 172	0	20
Phenanthrene	0.0584	mg/L	1	0.0800	<0.0000884	73	22.5 - 172	2	20
Fluoranthene	0.0593	mg/L	1	0.0800	<0.0000969	74	17.3 - 187	0	20
Pyrene	0.0613	mg/L	1	0.0800	<0.0000855	77	14.9 - 199	0	20
Benzo(a)anthracene	0.0594	mg/L	1	0.0800	<0.0000703	74	19.4 - 185	0	20
Chrysene	0.0634	mg/L	1	0.0800	<0.000113	79	18.4 - 188	0	20
Benzo(b)fluoranthene	0.0616	mg/L	1	0.0800	<0.000134	77	10 - 193	4	20
Benzo(k)fluoranthene	0.0654	mg/L	1	0.0800	<0.000227	82	27.8 - 196	5	20
Benzo(a)pyrene	0.0712	mg/L	1	0.0800	<0.000200	89	12.4 - 205	3	20
Indeno(1,2,3-cd)pyrene	0.0639	mg/L	1	0.0800	<0.000253	80	10 - 198	4	20
Dibenzo(a,h)anthracene	0.0631	mg/L	1	0.0800	<0.000180	79	10 - 172	4	20
Benzo(g,h,i)perylene	0.0736	mg/L	1	0.0800	<0.000158	92	10 - 186	5	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	0.0514	0.0522	mg/L	1	0.0800	64	65	10 - 165
Nitrobenzene-d5	0.0526	0.0531	mg/L	1	0.0800	66	66	10 - 157
Terphenyl-d14	0.0601	0.0608	mg/L	1	0.0800	75	76	10 - 220

Laboratory Control Spike (LCS-1)

QC Batch: 55564 | Date Analyzed: 2008-12-28 | Analyzed By: KB
Prep Batch: 47491 | QC Preparation: 2008-12-28 | Prepared By. KB

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec Limit
1,1-Dichloroethene	55.9	µg/L	1	50.0	<0.136	112	70 - 130
Benzene	54.9	µg/L	1	50.0	<0 146	110	70 - 130
Trichloroethene (TCE)	52.7	µg/L	1	50.0	<0.117	105	70 - 130
Toluene	55.4	µg/L	1	50.0	<0.0600	111	70 - 130
Chlorobenzene	52.7	µg/L	1	50.0	0.07	105	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	57.4	µg/L	1	50.0	<0.136	115	70 - 130	3	
Benzene	56.8	µg/L	1	50.0	<0.146	114	70 - 130	3	
Trichloroethene (TCE)	52.9	µg/L	1	50.0	<0.117	106	70 - 130	0	
Toluene	55 8	µg/L	1	50.0	<0.0600	112	70 - 130	1	
Chlorobenzene	53.4	µg/L	1	50.0	0.07	107	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	51.5	51.0	µg/L	1	50.0	103	102	70 - 130
Toluene-d8	47.8	49.3	µg/L	1	50.0	96	99	70 - 130
4-Bromofluorobenzene (4-BFB)	50.9	50.7	µg/L	1	50.0	102	101	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch. 55597 | Date Analyzed: 2008-12-30 | Analyzed By: CM
Prep Batch: 47512 | QC Preparation: 2008-12-30 | Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	272	mg/Kg	1	250	<5.28	109	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	282	mg/Kg	1	250	<5.28	113	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: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	2.27	mg/L	1	2.50	<0.0700	91	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	2.32	mg/L	1	2.50	<0.0700	93	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: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chloride	11.4	mg/L	1	12.5	<0.137	91	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	11.5	mg/L	1	12.5	<0.137	92	90 - 110	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: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Fluoride	2.31	mg/L	1	2.50	<0.0889	92	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	2.27	mg/L	1	2.50	<0.0889	91	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: 55619 | Date Analyzed: 2008-12-29 | Analyzed By: SS
Prep Batch: 47538 | QC Preparation: 2008-12-29 | Prepared By: SS

Param	LCS 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	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Cyanide	12.4	mg/Kg	1	12.0	<1.94	103	-	0	

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

Matrix Spike (MS-1) Spiked Sample: 183395

QC Batch: 55469 | Date Analyzed: 2008-12-23 | Analyzed By: ER
Prep Batch: 47407 | QC Preparation: 2008-12-23 | Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
MTBE	1.03	mg/Kg	1	1.00	<0.00260	103	10.4 - 161.1
Benzene	1.22	mg/Kg	1	1.00	<0.00347	122	42.9 - 130.7
Toluene	1.28	mg/Kg	1	1.00	<0.00525	128	46.9 - 135.4
Ethylbenzene	1.34	mg/Kg	1	1.00	<0.00607	134	48.3 - 149.3
Xylene	4.05	mg/Kg	1	3.00	<0.00724	135	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
MTBE	1.07	mg/Kg	1	1.00	<0.00260	107	10.4 - 161.1	4	20
Benzene	1.24	mg/Kg	1	1.00	<0.00347	124	42.9 - 130.7	2	20
Toluene	1.32	mg/Kg	1	1.00	<0.00525	132	46.9 - 135.4	3	20
Ethylbenzene	1.38	mg/Kg	1	1.00	<0.00607	138	48.3 - 149.3	3	20
Xylene	4.20	mg/Kg	1	3.00	<0.00724	140	48.8 - 150.9	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) [1,2]	1.35	1.36	mg/Kg	1	1	135	136	63.2 - 128.3
4-Bromofluorobenzene (4-BFB)	1.31	1.38	mg/Kg	1	1	131	138	61.5 - 161.2

[1]Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.
[2]Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

Matrix Spike (MS-1) Spiked Sample: 183396

QC Batch: 55470 | Date Analyzed: 2008-12-23 | Analyzed By: ER
Prep Batch: 47407 | QC Preparation: 2008-12-23 | Prepared By: ER

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	13.6	mg/Kg	1	10.0	<0.144	136	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	14.1	mg/Kg	1	10.0	<0.144	141	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)	[3] [4]	1.46	1.46	mg/Kg	1	1	146	146	41.8 - 145.4
4-Bromofluorobenzene (4-BFB)		1.53	1.55	mg/Kg	1	1	153	155	50.3 - 197.8

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55481 | Date Analyzed: 2008-12-23 | Analyzed By:
Prep Batch: 47416 | QC Preparation: 2008-12-23 | Prepared By:

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	252	mg/Kg	1	250	<14.5	101	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	252	mg/Kg	1	250	<14.5	101	0 - 197	0	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	91.0	89.9	mg/Kg	1	100	91	90	57.5 - 139

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55514 | Date Analyzed: 2008-12-25 | Analyzed By: TP
Prep Batch: 47443 | QC Preparation: 2008-12-24 | Prepared By: TP

[3]Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.
[4]Matrix spike recovery out of control limits. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Mercury	0.00123	mg/L	1	0.00100	0.000132	110	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	0.00119	mg/L	1	0.00100	0.000132	106	85 - 115	3	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: 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cadmium	0.243	mg/L	1	0.250	<0.00140	97	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	0.243	mg/L	1	0.250	<0.00140	97	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: 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Lead	0.489	mg/L	1	0.500	<0.00320	98	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	0.489	mg/L	1	0.500	<0.00320	98	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: 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Selenium	0.465	mg/L	1	0.500	<0.0131	93	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	0.462	mg/L	1	0.500	<0.0131	92	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: 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Arsenic	0.482	mg/L	1	0.500	<0.00430	96	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	0.484	mg/L	1	0.500	<0.00430	97	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: 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Barium	1.34	mg/L	1	1.00	0.369	97	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	1.33	mg/L	1	1.00	0.369	96	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: 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chromium	0.0930	mg/L	1	0.100	0.005	88	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 Chromium	0.0920	mg/L	1	0.100	0.005	87	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: 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch: 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Silver	0.115	mg/L	1	0.125	<0.00210	92	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	0.115	mg/L	1	0.125	<0.00210	92	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. 183416

QC Batch: 55520 | Date Analyzed: 2008-12-26 | Analyzed By: RR
Prep Batch. 47446 | QC Preparation: 2008-12-24 | Prepared By: KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP U	0.456	mg/L	1	0.500	<0.0105	91	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	0.476	mg/L	1	0.500	<0.0105	95	90 - 110	4	

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

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55564 | Date Analyzed: 2008-12-28 | Analyzed By: KB
Prep Batch: 47491 | QC Preparation: 2008-12-28 | Prepared By: KB

Param		MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene		50.4	µg/L	1	50.0	<0.136	101	70 - 130
Benzene		49.7	µg/L	1	50.0	<0.146	99	70 - 130
Trichloroethene (TCE)	[5]	79.2	µg/L	1	50.0	<0.117	158	70 - 130
Toluene		50.2	µg/L	1	50.0	0.69	99	70 - 130
Chlorobenzene		47.0	µg/L	1	50.0	<0.0540	94	70 - 130

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
1,1-Dichloroethene		45.8	µg/L	1	50.0	<0.136	92	70 - 130	10	
Benzene		48.4	µg/L	1	50.0	<0.146	97	70 - 130	3	
Trichloroethene (TCE)	[6]	75.7	µg/L	1	50.0	<0.117	151	70 - 130	4	
Toluene		47.9	µg/L	1	50.0	0.69	94	70 - 130	5	
Chlorobenzene		46.3	µg/L	1	50.0	<0.0540	93	70 - 130	2	

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
Dibromofluoromethane	52.2	49.4	µg/L	1	50	104	99	70 - 130
Toluene-d8	49.0	49.4	µg/L	1	50	98	99	70 - 130
4-Bromofluorobenzene (4-BFB)	50.9	50.3	µg/L	1	50	102	101	70 - 130

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55597 | Date Analyzed: 2008-12-30 | Analyzed By: CM
Prep Batch: 47512 | QC Preparation: 2008-12-30 | Prepared By: CM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	502	mg/Kg	1	250	191	124	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	512	mg/Kg	1	250	191	128	10 - 354	2	20

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

[5]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[6]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control. RPD within RPD limits.

Matrix Spike (MS-1) Spiked Sample: 183416

QC Batch: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Nitrate-N	23.0	mg/L	10	25.0	<0.700	92	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	22.1	mg/L	10	25.0	<0.700	88	73.6 - 122	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: 183416

QC Batch: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Chloride	161	mg/L	10	120	55.3	88	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	170	mg/L	10	125	55.3	92	49.8 - 149	5	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: 183416

QC Batch: 55608 | Date Analyzed: 2008-12-30 | Analyzed By: RD
Prep Batch: 47527 | QC Preparation: 2008-12-30 | Prepared By: RD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Fluoride	20.0	mg/L	10	25.0	<0.889	79	63.5 - 127

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

continued ...

matrix spikes continued ...

Param	MSD Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
SPLP Fluoride [7]	25.2	mg/L	10	25.0	<0.889	100	63.5 - 127	23	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: 183416

QC Batch: 55619 | Date Analyzed: 2008-12-29 | Analyzed By: SS
Prep Batch: 47538 | QC Preparation: 2008-12-29 | Prepared By: SS

Param	MS Result	Units	Dil	Spike Amount	Matrix Result	Rec.	Rec. Limit
SPLP Cyanide	13.2	mg/Kg	1	12.0	<1.94	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 Cyanide	12.7	mg/Kg	1	12.0	<1.94	106	-	4	

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

Standard (CCV-2)

QC Batch: 55469 | Date Analyzed: 2008-12-23 | Analyzed By: ER

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0954	95	80 - 120	2008-12-23
Benzene		mg/Kg	0.100	0.0963	96	80 - 120	2008-12-23
Toluene		mg/Kg	0.100	0.0968	97	80 - 120	2008-12-23
Ethylbenzene		mg/Kg	0.100	0.0934	93	80 - 120	2008-12-23
Xylene		mg/Kg	0.300	0.284	95	80 - 120	2008-12-23

Standard (CCV-3)

QC Batch: 55469 | Date Analyzed: 2008-12-23 | Analyzed By: ER

[7] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.

Param	Flag	Units	CCVs True Conc	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.104	104	80 - 120	2008-12-23
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2008-12-23
Toluene		mg/Kg	0.100	0.101	101	80 - 120	2008-12-23
Ethylbenzene		mg/Kg	0.100	0.0995	100	80 - 120	2008-12-23
Xylene		mg/Kg	0.300	0.306	102	80 - 120	2008-12-23

Standard (CCV-2)

QC Batch: 55470 Date Analyzed: 2008-12-23 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	0.878	88	80 - 120	2008-12-23

Standard (CCV-3)

QC Batch: 55470 Date Analyzed: 2008-12-23 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	1.07	107	80 - 120	2008-12-23

Standard (CCV-1)

QC Batch: 55481 Date Analyzed: 2008-12-23 Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	263	105	85 - 115	2008-12-23

Standard (CCV-2)

QC Batch: 55481 Date Analyzed: 2008-12-23 Analyzed By:

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	264	106	85 - 115	2008-12-23

Standard (ICV-1)

QC Batch: 55514 Date Analyzed. 2008-12-25 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 000972	97	90 - 110	2008-12-25

Standard (CCV-1)

QC Batch: 55514 Date Analyzed: 2008-12-25 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	0.000958	96	80 - 120	2008-12-25

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.02	102	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.03	103	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.02	102	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.01	101	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.05	105	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 Analyzed By: RR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chromium		mg/L	1.00	1.03	103	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	0.125	100	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	0.954	95	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.01	101	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.02	102	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	0.998	100	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	0.992	99	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	1.03	103	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 Analyzed By: RR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
SPLP Chromium		mg/L	1.00	1.01	101	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	0.123	98	90 - 110	2008-12-26

Standard (CCV-1)

QC Batch: 55520 Date Analyzed: 2008-12-26 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	0.928	93	90 - 110	2008-12-26

Standard (ICV-1)

QC Batch: 55549 Date Analyzed: 2008-12-29 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	0.318	80	85 - 115	2008-12-29
Aroclor 1254 (PCB-1254)		mg/L	0.400	0.403	101	85 - 115	2008-12-29
Aroclor 1260 (PCB-1260)		mg/L	0.400	0.436	109	85 - 115	2008-12-29

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Deca chlorobiphenyl		0.115	mg/L	1	0.100	115	85 - 115

[8]Aroclor 1242 (PCB-1242) outside of control limits on CCV(ICV). CCV(ICV) component average is 101% which is within acceptable range. This is acceptable by Method 8000.

Standard (CCV-1)

QC Batch: 55549 Date Analyzed 2008-12-29 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	0.283	71	85 - 115	2008-12-29
Aroclor 1254 (PCB-1254)		mg/L	0.400	0.421	105	85 - 115	2008-12-29
Aroclor 1260 (PCB-1260)		mg/L	0.400	0.447	112	85 - 115	2008-12-29

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Deca chlorobiphenyl		0.112	mg/L	1	0.100	112	85 - 115

Standard (CCV-1)

QC Batch: 55563 Date Analyzed: 2008-12-29 Analyzed By: MN

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	60.2	100	80 - 120	2008-12-29
Acenaphthylene		mg/L	60.0	61.2	102	80 - 120	2008-12-29
Acenaphthene		mg/L	60.0	60.5	101	80 - 120	2008-12-29
Dibenzofuran		mg/L	60.0	63.9	106	80 - 120	2008-12-29
Fluorene		mg/L	60.0	67.5	112	80 - 120	2008-12-29
Anthracene		mg/L	60.0	61.0	102	80 - 120	2008-12-29
Phenanthrene		mg/L	60.0	59.6	99	80 - 120	2008-12-29
Fluoranthene		mg/L	60.0	58.8	98	80 - 120	2008-12-29
Pyrene		mg/L	60.0	58.4	97	80 - 120	2008-12-29
Benzo(a)anthracene		mg/L	60.0	56.9	95	80 - 120	2008-12-29
Chrysene		mg/L	60.0	60.1	100	80 - 120	2008-12-29
Benzo(b)fluoranthene		mg/L	60.0	59.8	100	80 - 120	2008-12-29
Benzo(k)fluoranthene		mg/L	60.0	59.2	99	80 - 120	2008-12-29
Benzo(a)pyrene		mg/L	60.0	65.1	108	80 - 120	2008-12-29
Indeno(1,2,3-cd)pyrene		mg/L	60.0	58.4	97	80 - 120	2008-12-29
Dibenzo(a,h)anthracene		mg/L	60.0	58.9	98	80 - 120	2008-12-29
Benzo(g,h,i)perylene		mg/L	60.0	66.9	112	80 - 120	2008-12-29

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		54.9	mg/L	1	60.0	92	80 - 120
Nitrobenzene-d5		64.4	mg/L	1	60.0	107	80 - 120
Terphenyl-d14		56.5	mg/L	1	60.0	94	80 - 120

[9]Aroclor 1242 (PCB-1242) outside of control limits on CCV(ICV). CCV(ICV) component average is 100% which is within acceptable range. This is acceptable by Method 8000.

Standard (CCV-1)

QC Batch: 55564 Date Analyzed: 2008-12-28 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	50.7	101	80 - 120	2008-12-28
1,1-Dichloroethene		µg/L	50.0	60.1	120	80 - 120	2008-12-28
Chloroform		µg/L	50.0	57.1	114	80 - 120	2008-12-28
1,2-Dichloropropane		µg/L	50.0	58.7	117	80 - 120	2008-12-28
Toluene		µg/L	50.0	56.2	112	80 - 120	2008-12-28
Chlorobenzene		µg/L	50.0	53 7	107	80 - 120	2008-12-28
Ethylbenzene		µg/L	50.0	54.4	109	80 - 120	2008-12-28

Standard (ICV-1)

QC Batch: 55597 Date Analyzed: 2008-12-30 Analyzed By: CM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	97.2	97	80 - 120	2008-12-30

Standard (CCV-1)

QC Batch: 55597 Date Analyzed: 2008-12-30 Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	84.0	84	80 - 120	2008-12-30

Standard (ICV-1)

QC Batch: 55608 Date Analyzed: 2008-12-30 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	2.27	91	90 - 110	2008-12-30

Standard (ICV-1)

QC Batch: 55608 Date Analyzed: 2008-12-30 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	11.5	92	90 - 110	2008-12-30

Standard (ICV-1)

QC Batch: 55608 Date Analyzed: 2008-12-30 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	2.26	90	90 - 110	2008-12-30

Standard (CCV-1)

QC Batch: 55608 Date Analyzed: 2008-12-30 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	2.28	91	90 - 110	2008-12-30

Standard (CCV-1)

QC Batch: 55608 Date Analyzed: 2008-12-30 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	11.6	93	90 - 110	2008-12-30

Standard (CCV-1)

QC Batch: 55608 Date Analyzed: 2008-12-30 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	2.41	96	90 - 110	2008-12-30

Standard (ICV-1)

QC Batch: 55619 Date Analyzed: 2008-12-29 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	-	2008-12-29

Standard (CCV-1)

QC Batch: 55619 Date Analyzed: 2008-12-29 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	-	2008-12-29

LAB Order ID # 8122318 Page ___ of ___

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Invoice to: (If different from above) NEW BOURNE OIL ATTN: CHARLES MARTIN

Project #: NEWBOU036PIT

Project Name: PALOMA 21 FED COM #1

Project Location (including state): LEA COUNTY NM

Sampler Signature: EB

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
183416	INSITU CUTTINGS	2			X							X		12/22	8:45

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	EPA 1312 SPLP					Turn Around Time if different from standard	Hold
	X	X	X														X	X						

Relinquished by: Date: Time:
Tom Dewey 12/23 6:00

Received by: Date: Time:
12/23/08 6:00

Relinquished by: Date: Time:
12/23 10:55

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Date: Time:
Brenda Ward 12/23/08 10:55

LAB USE ONLY
Intact (Y) N
Headspace (Y) N
Temp 4.1 / 4.6 °C corrected
Log-In-Review

REMARKS: SEE ATTACHED SHEET

3 DAY TAT

Dry Weight Basis Required

TRRP Report Required

Check If Special Reporting Limits Are Needed

Carrier # Campbell

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

ORIGINAL COPY

C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.
[2-18-77; 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]
[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6.2.III.3102, 1-15-01]

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication *"methods for chemical analysis of water and waste of the U.S. environmental protection agency,"* with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. **Human Health Standards**-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1) Arsenic (As).....0.1 mg/l
(2) Barium (Ba).....1.0 mg/l
(3) Cadmium (Cd).....0.01 mg/l
(4) Chromium (Cr).....0.05 mg/l
(5) Cyanide (CN).....0.2 mg/l
(6) Fluoride (F).....1.6 mg/l
(7) Lead (Pb).....0.05 mg/l
(8) Total Mercury (Hg).....0.002 mg/l
(9) Nitrate (NO_3 as N).....10.0 mg/l
(10) Selenium (Se).....0.05 mg/l
(11) Silver (Ag).....0.05 mg/l
(12) Uranium (U).....0.03 mg/l
(13) Radioactivity: Combined Radium-226 & Radium-228.....30 pCi/l
(14) Benzene.....0.01 mg/l
(15) Polychlorinated biphenyls (PCB's).....0.001 mg/l
(16) Toluene.....0.75 mg/l
(17) Carbon Tetrachloride.....0.01 mg/l
(18) 1,2-dichloroethane (EDC).....0.01 mg/l
(19) 1,1-dichloroethylene (1,1-DCE).....0.005 mg/l
(20) 1,1,2,2-tetrachloroethylene (PCE).....0.02 mg/l
(21) 1,1,2-trichloroethylene (TCE).....0.1 mg/l
(22) ethylbenzene.....0.75 mg/l
(23) total xylenes.....0.62 mg/l
(24) methylene chloride.....0.1 mg/l
(25) chloroform.....0.1 mg/l
(26) 1,1-dichloroethane.....0.025 mg/l
(27) ethylene dibromide (EDB).....0.0001 mg/l
(28) 1,1,1-trichloroethane.....0.06 mg/l
(29) 1,1,2-trichloroethane.....0.01 mg/l
(30) 1,1,2,2-tetrachloroethane.....0.01 mg/l
(31) vinyl chloride.....0.001 mg/l

(32) PAHs: total naphthalene plus monomethylnaphthalenes.....0.03 mg/l
(33) benzo-a-pyrene.....0.0007 mg/l

B. Other Standards for Domestic Water Supply

(1) Chloride (Cl) .....250.0 mg/l
(2) Copper (Cu) .....1.0 mg/l
(3) Iron (Fe) .....1.0 mg/l
(4) Manganese (Mn) .....0.2 mg/l
(6) Phenols .....0.005 mg/l
(7) Sulfate (SO_4) .....600.0 mg/l
(8) Total Dissolved Solids (TDS) .....1000.0 mg/l
(9) Zinc (Zn) .....10.0 mg/l
(10) pH.....between 6 and 9

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of this section unless otherwise provided.

(1) Aluminum (Al).....5.0 mg/l
(2) Boron (B) .....0.75 mg/l
(3) Cobalt (Co) .....0.05 mg/l
(4) Molybdenum (Mo) .....1.0 mg/l
(5) Nickel (Ni) .....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6 2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers. [2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT: Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

A. Effluent or leachate which conforms to all the listed numerical standards of Section 20.6 2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;

B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day;

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result;

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry arroyos and ephemeral streams are not exempt from the discharge permit requirement, except as otherwise provided in this section;

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall

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: January 6, 2009

Work Order: 8122318

Project Location: Lea County, NM
Project Name: Paloma 21 Fed. Com. #1
Project Number: MEWBOU036 Pit

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
183416	Insitu Cuttings	soil	2008-12-22	08:45	2008-12-23

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.

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 21 Fed. Com. #1 were received by TraceAnalysis, Inc. on 2008-12-23 and assigned to work order 8122318. Samples for work order 8122318 were received intact at a temperature of 4.6 deg. C.

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

Test	Method
Chloride (Titration)	SM 4500-Cl B

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 8122318 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: 183416 - Insitu Cuttings

Laboratory:	Lubbock				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	55646	Date Analyzed:	2008-12-31	Analyzed By:	KV
Prep Batch:	47555	Sample Preparation:	2008-12-31	Prepared By:	KV

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**996**	mg/Kg	10	3.25

Method Blank (1) QC Batch: 55646

QC Batch:	55646	Date Analyzed.	2008-12-31	Analyzed By:	KV
Prep Batch.	47555	QC Preparation:	2008-12-31	Prepared By.	KV

Parameter	Flag	MDL Result	Units	RL
Chloride		<1 80	mg/Kg	3.25

Matrix Spike (MS-1) Spiked Sample: 183579

QC Batch:	55646	Date Analyzed.	2008-12-31	Analyzed By:	KV
Prep Batch.	47555	QC Preparation:	2008-12-31	Prepared By:	KV

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	620	mg/Kg	10	500	119	100	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	616	mg/Kg	10	500	119	99	74.7 - 123.2	1	20

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

Standard (ICV-1)

QC Batch:	55646	Date Analyzed:	2008-12-31	Analyzed By:	KV

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-12-31

Standard (CCV-1)

QC Batch: 55646 Date Analyzed: 2008-12-31 Analyzed By. KV

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2008-12-31

LAB Order ID # 8122318 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
5002 Basin Street, Suite A1, Midland, Texas 79703, Tel (432) 689-6301, Fax (432) 689 6313
200 East Sunset Rd. Suite E, El Paso, Texas 79922, Tel (915) 585-3443, Fax (915) 585-4944, 1 (888) 588-3443
6015 Harris Pkwy Suite 110, Ft Worth, Texas 76132, Tel (817) 201-5260

Company Name: TAION LPE
Phone #: (432) 238-4388
Address: (Street, City, Zip) 318 E TAYLOR HOBBS NM 88240
Fax #:
Contact Person: EB Taylor
E-mail:
Invoice to: (If different from above) MEW BOURNE OIL ATTN: CHARLES MARTIN
Project #: MEWBOU036PIT
Project Name: PALOMA 21 FED COM #1
Project Location (including state): LEA COUNTY NM
Sampler Signature: EB

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	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	PCBs 8082 / 608	Pesticides 8081A / 608	BOD TSS, pH	Moisture Content	CHLORIDES 4500	EPA 1312 SPLP			Turn Around Time if different from standard	Hold
182416	INSITU CUTTINGS	2			X							X		12/22	8:45		X	X	X														X	X				

Relinquished by: Tom Dewey Date: 12/23 Time: 6:00
Received by: Date: 12/23/08 Time: 6:00
Relinquished by: Date: 12/23 Time: 10:55
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Brenda Ward Date: 12/23/08 Time: 10:55

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4.1 / 4.6° corrected
Log Review

REMARKS: SEE ATTACHED SHEET
3 DAY TAT
Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting Limits Are Needed

Carrier # Campbell

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

ORIGINAL COPY

C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.
[2-18-77, 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]
[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6.2.III.3102, 1-15-01]

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication *"methods for chemical analysis of water and waste of the U.S. environmental protection agency,"* with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. **Human Health Standards**-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1)	Arsenic (As)	0.1 mg/l
(2)	Barium (Ba)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN)	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO_3 as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	0.01 mg/l
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	0.75 mg/l
(23)	total xylenes	0.62 mg/l
(24)	methylene chloride	0.1 mg/l
(25)	chloroform	0.1 mg/l
(26)	1,1-dichloroethane	0.025 mg/l
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	0.06 mg/l
(29)	1,1,2-trichloroethane	0.01 mg/l
(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
(31)	vinyl chloride	0.001 mg/l

(32) PAHs: total naphthalene plus monomethylnaphthalenes.....0.03 mg/l
(33) benzo-a-pyrene.....0.0007 mg/l

B. *Other Standards for Domestic Water Supply*

(1) Chloride (Cl) .....250 0 mg/l
(2) Copper (Cu) .....1.0 mg/l
(3) Iron (Fe) .....1.0 mg/l
(4) Manganese (Mn) .....0.2 mg/l
(6) Phenols.....0.005 mg/l
(7) Sulfate (SO_4) .....600.0 mg/l
(8) Total Dissolved Solids (TDS) .....1000 0 mg/l
(9) Zinc (Zn) .....10.0 mg/l
(10) pH.....between 6 and 9

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of this section unless otherwise provided.

(1) Aluminum (Al).....5.0 mg/l
(2) Boron (B) .....0.75 mg/l
(3) Cobalt (Co) .....0.05 mg/l
(4) Molybdenum (Mo) .....1.0 mg/l
(5) Nickel (Ni) .....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly of indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers. [2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT: Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

A. Effluent or leachate which conforms to all the listed numerical standards of Section 20.6.2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;

B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day;

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result;

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry arroyos and ephemeral streams are not exempt from the discharge permit requirement, except as otherwise provided in this section;

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall

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: January 14, 2009

Work Order: 9011205

Project Location: Lea County, NM
Project Name: Paloma 21 Fed. Com. #1
Project Number: MEWBOU036 Pit

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
184415	Floor Composite	soil	2009-01-09	11:00	2009-01-12

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.

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 21 Fed. Com. #1 were received by TraceAnalysis, Inc. on 2009-01-12 and assigned to work order 9011205. Samples for work order 9011205 were received intact at a temperature of 1.9 deg. C.

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

Test	Method
BTEX	S 8021B
Chloride (Titration)	SM 4500-Cl B
Total BTEX	S 8021B
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 9011205 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: 184415 - Floor Composite

Laboratory:	Midland				
Analysis.	BTEX, Total BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	55937	Date Analyzed:	2009-01-12	Analyzed By:	ME
Prep Batch:	47810	Sample Preparation:	2009-01-12	Prepared By:	ME

Parameter	Flag	Result	RL	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
Total BTEX		<0.0600		mg/Kg	1	0.0600

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.945	mg/Kg	1	1.00	94	68 - 136.9
4-Bromofluorobenzene (4-BFB)		0.955	mg/Kg	1	1.00	96	48.2 - 155

Sample: 184415 - Floor Composite

Laboratory.	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	55915	Date Analyzed:	2009-01-12	Analyzed By:	AR
Prep Batch:	47790	Sample Preparation:	2009-01-12	Prepared By.	AR

Parameter	Flag	Result	RL	Units	Dilution	RL
Chloride		<200		mg/Kg	50	4.00

Sample: 184415 - Floor Composite

Laboratory:	Lubbock				
Analysis:	TPH 418.1	Analytical Method:	E 418.1	Prep Method:	N/A
QC Batch:	55969	Date Analyzed:	2009-01-14	Analyzed By:	CM
Prep Batch:	47840	Sample Preparation:	2009-01-14	Prepared By:	CM

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

Sample: 184415 - Floor Composite

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method.	N/A
QC Batch:	55932	Date Analyzed:	2009-01-12	Analyzed By:	AG
Prep Batch:	47809	Sample Preparation:	2009-01-12	Prepared By:	AG

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		83.3	mg/Kg	1	100	83	10 - 250.4

Sample: 184415 - Floor Composite

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	55938	Date Analyzed:	2009-01-12	Analyzed By:	ME
Prep Batch:	47810	Sample Preparation:	2009-01-12	Prepared By:	ME

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)		0.912	mg/Kg	1	1.00	91	67.5 - 135.2
4-Bromofluorobenzene (4-BFB)		0.871	mg/Kg	1	1.00	87	63.8 - 141

Method Blank (1) QC Batch: 55915

QC Batch:	55915	Date Analyzed:	2009-01-12	Analyzed By:	AR
Prep Batch:	47790	QC Preparation:	2009-01-12	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.01	mg/Kg	4

Method Blank (1) QC Batch: 55932

QC Batch:	55932	Date Analyzed:	2009-01-12	Analyzed By:	AG
Prep Batch:	47809	QC Preparation:	2009-01-12	Prepared By:	AG

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		67.5	mg/Kg	1	100	68	30.9 - 146.4

Method Blank (1) QC Batch: 55937

QC Batch: 55937 Date Analyzed. 2009-01-12 Analyzed By: ME
Prep Batch. 47810 QC Preparation: 2009-01-12 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00580	mg/Kg	0.01
Toluene		<0.00470	mg/Kg	0.01
Ethylbenzene		<0.00530	mg/Kg	0.01
Xylene		<0.0136	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.961	mg/Kg	1	1.00	96	48.3 - 132.5
4-Bromofluorobenzene (4-BFB)		0.914	mg/Kg	1	1.00	91	37.7 - 128.9

Method Blank (1) QC Batch: 55938

QC Batch: 55938 Date Analyzed: 2009-01-12 Analyzed By: ME
Prep Batch: 47810 QC Preparation: 2009-01-12 Prepared By: ME

Parameter	Flag	MDL Result	Units	RL
GRO		<0.442	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.912	mg/Kg	1	1.00	91	39.2 - 135.2
4-Bromofluorobenzene (4-BFB)		0.832	mg/Kg	1	1.00	83	16.8 - 138.1

Method Blank (1) QC Batch: 55969

QC Batch: 55969 Date Analyzed: 2009-01-14 Analyzed By: CM
Prep Batch: 47840 QC Preparation: 2009-01-14 Prepared By: CM

Parameter	Flag	MDL Result	Units	RL
TRPHC		<5 28	mg/Kg	10

Laboratory Control Spike (LCS-1)

QC Batch: 55915 | Date Analyzed: 2009-01-12 | Analyzed By. AR
Prep Batch: 47790 | QC Preparation: 2009-01-12 | Prepared By. AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.2	mg/Kg	1	100	<2.01	98	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
Chloride	100	mg/Kg	1	100	<2.01	100	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: 55932 | Date Analyzed: 2009-01-12 | Analyzed By: AG
Prep Batch 47809 | QC Preparation: 2009-01-12 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	259	mg/Kg	1	250	<15.8	104	27.8 - 152.1

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	258	mg/Kg	1	250	<15.8	103	27.8 - 152.1	0	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	89.4	91.2	mg/Kg	1	100	89	91	38 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 55937 | Date Analyzed: 2009-01-12 | Analyzed By: ME
Prep Batch: 47810 | QC Preparation: 2009-01-12 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.990	mg/Kg	1	1.00	<0.00580	99	73 3 - 116 6
Toluene	0.985	mg/Kg	1	1.00	<0.00470	98	78.6 - 115 1
Ethylbenzene	0.984	mg/Kg	1	1.00	<0.00530	98	77.4 - 114.9
Xylene	2.95	mg/Kg	1	3.00	<0.0136	98	78.2 - 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
Benzene	1.02	mg/Kg	1	1.00	<0.00580	102	73.3 - 116 6	3	20
Toluene	1.02	mg/Kg	1	1.00	<0.00470	102	78.6 - 115.1	4	20
Ethylbenzene	1.03	mg/Kg	1	1.00	<0.00530	103	77.4 - 114.9	5	20
Xylene	3.08	mg/Kg	1	3.00	<0.0136	103	78 2 - 114.7	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
Trifluorotoluene (TFT)	0.921	0.966	mg/Kg	1	1.00	92	97	45 - 124.2
4-Bromofluorobenzene (4-BFB)	0.931	0.937	mg/Kg	1	1.00	93	94	47.2 - 130.4

Laboratory Control Spike (LCS-1)

QC Batch: 55938 | Date Analyzed: 2009-01-12 | Analyzed By. ME
Prep Batch: 47810 | QC Preparation: 2009-01-12 | Prepared By. ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.21	mg/Kg	1	10.0	<0.442	72	57.5 - 106.4

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
GRO	7.18	mg/Kg	1	10.0	<0.442	72	57.5 - 106.4	0	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)	0.900	0.917	mg/Kg	1	1.00	90	92	63.8 - 134.3
4-Bromofluorobenzene (4-BFB)	0.851	0.868	mg/Kg	1	1.00	85	87	53.3 - 123.6

Laboratory Control Spike (LCS-1)

QC Batch: 55969 | Date Analyzed: 2009-01-14 | Analyzed By: CM
Prep Batch: 47840 | QC Preparation: 2009-01-14 | Prepared By: CM

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	273	mg/Kg	1	250	<5.28	109	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	269	mg/Kg	1	250	<5.28	108	75.5 - 136	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: 184439

QC Batch: 55915 | Date Analyzed: 2009-01-12 | Analyzed By: AR
Prep Batch: 47790 | QC Preparation: 2009-01-12 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	18900	mg/Kg	50	5000	14300	92	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
Chloride	19400	mg/Kg	50	5000	14300	102	85 - 115	3	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: 184415

QC Batch: 55932 | Date Analyzed: 2009-01-12 | Analyzed By: AG
Prep Batch: 47809 | QC Preparation: 2009-01-12 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	219	mg/Kg	1	250	<15.8	88	18 - 179.5

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	217	mg/Kg	1	250	<15.8	87	18 - 179.5	1	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	83.0	86.0	mg/Kg	1	100	83	86	34.1 - 158

Matrix Spike (MS-1) Spiked Sample: 184415

QC Batch: 55937 | Date Analyzed: 2009-01-12 | Analyzed By: ME
Prep Batch: 47810 | QC Preparation: 2009-01-12 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.00	mg/Kg	1	1.00	<0.00580	100	62.2 - 134.3
Toluene	1.02	mg/Kg	1	1.00	<0.00470	102	62.6 - 145.4
Ethylbenzene	1.04	mg/Kg	1	1.00	<0.00530	104	64.6 - 146.4
Xylene	3.14	mg/Kg	1	3.00	<0 0136	105	64.3 - 148.8

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
Benzene	1.01	mg/Kg	1	1.00	<0.00580	101	62.2 - 134.3	1	20
Toluene	1.04	mg/Kg	1	1.00	<0.00470	104	62 6 - 145.4	2	20
Ethylbenzene	1.07	mg/Kg	1	1.00	<0.00530	107	64.6 - 146.4	3	20
Xylene	3.20	mg/Kg	1	3.00	<0.0136	107	64.3 - 148.8	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)	0.952	0.920	mg/Kg	1	1	95	92	38.8 - 127.5
4-Bromofluorobenzene (4-BFB)	0.979	0.953	mg/Kg	1	1	98	95	49.3 - 142.4

Matrix Spike (MS-1) Spiked Sample: 184414

QC Batch: 55938 | Date Analyzed: 2009-01-12 | Analyzed By: ME
Prep Batch: 47810 | QC Preparation: 2009-01-12 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.59	mg/Kg	1	10.0	<0.442	76	10 - 139.3

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	7.78	mg/Kg	1	10.0	<0.442	78	10 - 139.3	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)	0.921	0.902	mg/Kg	1	1	92	90	21.3 - 119
4-Bromofluorobenzene (4-BFB)	0.920	0.904	mg/Kg	1	1	92	90	52.5 - 154

Matrix Spike (MS-1) Spiked Sample: 184569

QC Batch: 55969 | Date Analyzed: 2009-01-14 | Analyzed By: CM
Prep Batch: 47840 | QC Preparation: 2009-01-14 | Prepared By: CM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
TRPHC	402	mg/Kg	1	250	104	119	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	412	mg/Kg	1	250	104	123	10 - 354	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: 55915 | Date Analyzed: 2009-01-12 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2009-01-12

Standard (CCV-1)

QC Batch: 55915 | Date Analyzed: 2009-01-12 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-01-12

Standard (ICV-1)

QC Batch: 55932 | Date Analyzed: 2009-01-12 | Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	258	103	85 - 115	2009-01-12

Standard (CCV-1)

QC Batch: 55932 | Date Analyzed: 2009-01-12 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	238	95	85 - 115	2009-01-12

Standard (ICV-1)

QC Batch: 55937 Date Analyzed: 2009-01-12 Analyzed By: ME

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.108	108	85 - 115	2009-01-12
Toluene		mg/Kg	0.100	0.107	107	85 - 115	2009-01-12
Ethylbenzene		mg/Kg	0.100	0.108	108	85 - 115	2009-01-12
Xylene		mg/Kg	0.300	0.324	108	85 - 115	2009-01-12

Standard (CCV-1)

QC Batch: 55937 Date Analyzed: 2009-01-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.105	105	85 - 115	2009-01-12
Toluene		mg/Kg	0.100	0.106	106	85 - 115	2009-01-12
Ethylbenzene		mg/Kg	0.100	0.106	106	85 - 115	2009-01-12
Xylene		mg/Kg	0.300	0.316	105	85 - 115	2009-01-12

Standard (ICV-1)

QC Batch: 55938 Date Analyzed: 2009-01-12 Analyzed By: ME

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.993	99	85 - 115	2009-01-12

Standard (CCV-1)

QC Batch: 55938 Date Analyzed: 2009-01-12 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1 00	0.881	88	85 - 115	2009-01-12

Standard (ICV-1)

QC Batch: 55969 Date Analyzed: 2009-01-14 Analyzed By: CM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	95.5	96	80 - 120	2009-01-14

Standard (CCV-1)

QC Batch: 55969 Date Analyzed: 2009-01-14 Analyzed By: CM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TRPHC		mg/Kg	100	98.8	99	80 - 120	2009-01-14

LAB Order ID # 9011205 Page 1 of 1

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Project #: PALOMA 21 FED COM. #1
Project Name: MEWBOURNE O&G PIT
Project Location (including state): LEA COUNTY NEW MEXICO
Sampler Signature: EB

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
184-15	FLOOR COMPOSITE	1			X							X		1/9/09	11:00

ANALYSIS REQUEST (Circle or Specify Method No.)

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					Turn Around Time if different from standard	Hold
	X	X	X													X						X	

RUSH

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	1/9/09	12:35		1/9/09	1235
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	1/12/09	0845	Lindsey Wilson	1-12-09	08:45
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

LAB USE ONLY
Intact (Y) / N
Headspace Y / (N)
Temp. 1.9
Log-in-Review

REMARKS:
All tests Midland

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Carrier # Carry-in

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

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