GW - 023

REPORTS

Year(s)

Closure Report
1/29/2007

Chavez, Carl J, EMNRD

From: Weathers, Stephen W [SWWeathers@dcpmidstream.com]
Sent: Friday, September 12, 2008 2:15 PM
To: Chavez, Carl J, EMNRD
Subject: RE: Duke Energy Field Services Artesia Gas Plant (Flare Pit Remediation/Closure) OCD Permit
Attachments: DukeFlarePit_Closure (2).doc; 1duke.tif

Carl

The work was completed under DCP Midstream Artesia Gas Plant (GW-23) Attached is a Closure Letter and the Pit Closure Form. The work was originally started under Duke Energy Field Services but was completed after we had changed our name to DCP Midstream.

Call if you have any questions.

Thanks
Steve

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Friday, September 12, 2008 1:46 PM
To: Weathers, Stephen W
Subject: Duke Energy Field Services Artesia Gas Plant (Flare Pit Remedation/Closure) OCD Permit

Stephen:

I am having some difficulty tracking down the RP# or GW# for the Duke Energy Field Services Artesia Gas Plant. Do you have the RP or GW number? Has there been any name change? Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: http://www.emnrd.state.nm.us/ocd/index.htm
(Pollution Prevention Guidance is under "Publications")

From: Weathers, Stephen W [mailto:SWWeathers@dcpmidstream.com]
Sent: Friday, September 12, 2008 12:18 PM
To: Price, Wayne, EMNRD; Chavez, Carl J, EMNRD; Johnson, Larry, EMNRD
Cc: Bauer, Matt
Subject: Notification to Compete Groundwater Sampling at the DCP Hobbs Gas Plant - Sept 17th 2008

Mr. Price

DCP Midstream, LP by this email is informing you that the 3rd Quarter 2008 groundwater sampling event for the DCP Hobbs Gas Plant located in Lea, New Mexico (Unit G, Section 36, Township 18 South, Range 36 East) is scheduled for September 17th, 2008. The activities should begin around 8 am MST.

If you have any questions, please give me a call at 303-605-1718.

Thanks

Stephen W Weathers, P.G.
Principal Environmental Specialist
DCP Midstream L.P.
Office 303.605.1718
Cell 303.619.3042

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

January 29, 2007

Duke Energy Field Services
370 17th St. Suite 2500
Denver CO 80202
ATTN: Steve Weathers

Reference: Duke Energy Field Services Artesia Gas Plant (Flare Pit Remediation/Closure)
Location: 7-18s-28e Eddy County, New Mexico

Dear Mr. Weathers,

The New Mexico Oil Conservation Division District 2 Office (OCD) is in receipt of a Closure Report (report) outlining remediation activities performed in closing a flare pit at the above referenced location. The report was prepared and submitted to the OCD by your agent, Conestoga-Rovers & Associates.

Based on the data submitted, the OCD accepts the closure report and will require no further action at this site at this time.

Please be advised that approval/acceptance of this closure does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, approval/acceptance of this closure does not relieve the responsible party of responsibility for compliance with any other federal, state, local laws and/or regulations.

Sincerely,

Mike Bratcher

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

ec: Stephen Weathers (Duke Energy Field Services), Todd Wells (Conestoga Rovers & Associates) Wayne Price (NMOCD)

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

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

Pit or Below-Grade Tank Registration or Closure

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

Operator: Duke Energy Field Services Telephone (505) 677-5203 e-mail address:
Address: 1925 Illinois Camp Road Artesia, NM
Facility or well name: Artesia Gas Plant API #: U/L or Qtr/Qtr Sec T R
County: Eddy Latitude 32° 45' 24.6" N Longitude 104° 12' 45.1" W NAD: 1927 ☐ 1983 ☐
Surface Owner: Federal ☐ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling ☐ Production ☐ Disposal ☐ Workover ☐ Emergency ☒ Flare Lined ☐ Unlined ☒ Liner type: Synthetic ☐ Thickness ____mil Clay ☐ Pit Volume ____bbl	Volume: ____bbl Type of fluid: Construction material: Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 foot or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	30

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

Additional Comments: See attached Flare Pit Soil Remediation and Closure Report DEFS Artesia Gas Plant, Eddy County, NM for details

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 10/19/06
Printed Name/Title Stephen Weathers / Sr Env Specialist Signature

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

Approval:
Printed Name/Title Mike Bratcher Asst. Signature Mike Bratcher Date: 1/24/07

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

Duke Energy Field Services
370 17th St. Suite 2500
Denver CO 80202
ATTN: Steve Weathers

January 29, 2007

Reference: Duke Energy Field Services Artesia Gas Plant (Flare Pit Remediation/Closure)
Location: 7-18s-28e Eddy County, New Mexico

Dear Mr. Weathers,

The New Mexico Oil Conservation Division District 2 Office (OCD) is in receipt of a Closure Report (report) outlining remediation activities performed in closing a flare pit at the above referenced location. The report was prepared and submitted to the OCD by your agent, Conestoga-Rovers & Associates.

Based on the data submitted, the OCD accepts the closure report and will require no further action at this site at this time.

Please be advised that approval/acceptance of this closure does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, approval/acceptance of this closure does not relieve the responsible party of responsibility for compliance with any other federal, state, local laws and/or regulations.

Sincerely,

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

ec: Stephen Weathers (Duke Energy Field Services), Todd Wells (Conestoga Rovers & Associates) Wayne Price (NMOCD)

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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

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

Pit or Below-Grade Tank Registration or Closure

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

Operator: Duke Energy Field Services Telephone (505) 677-5203 e-mail address:
Address: 1925 Illinois Camp Road Artesia, NM
Facility or well name: Artesia Gas Plant API #: U/L or Qtr/Qtr Sec T R
County: Eddy Latitude 32° 45' 24.6" N Longitude 104° 12' 45.1" W NAD: 1927 ☐ 1983 ☐
Surface Owner: Federal ☐ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling ☐ Production ☐ Disposal ☐ Workover ☐ Emergency ☒ Flare Lined ☐ Unlined ☒ Liner type: Synthetic ☐ Thickness ____mil Clay ☐ Pit Volume ____bbl	Volume: ____bbl Type of fluid: Construction material: Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	30

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

Additional Comments: See attached Flare Pit Soil Remediation and Closure Report DEFS Artesia Gas Plant, Eddy County, NM for details

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 10/19/06
Printed Name/Title Stephen Weathers / Sr Env Specialist Signature

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

Approval:
Printed Name/Title Mike Bratcher Asst II Signature Date: 1/24/07

CONESTOGA-ROVERS
& ASSOCIATES

2135 S. Loop 250West
Midland, Texas 79705
Telephone: (432) 686-0086 Fax: (432) 686-0186
http://www.craworld.com

October 24, 2006 Reference No. 043995 (3)

Mr. Mike Bratcher
New Mexico Oil Conservation Division
District 2
1301 W. Grand Avenue
Artesia, New Mexico 88210

Re: Duke Energy Field Services
Artesia Gas Plant
Flare Pit Soil Remediation and Closure Report
Location: Section 7, T-18-S, R-28-E
Eddy County, New Mexico

Dear Mr. Bratcher:

Conestoga-Rovers and Associates (CRA) submits the attached New Mexico Oil Conservation Division (NMOCD) Form C-144, "Pit or Below-Grade Tank Registration or Closure" for pit closure as agent for Duke Energy Field Services (DEFS) at the Duke Artesia Gas Plant, located approximately 11-miles east of Artesia, Eddy County, New Mexico. Also, included is the *Flare Pit Soil Remediation and Closure Report* dated October 24, 2006, for the above referenced facility demonstrating the remedial actions taken. The (NMOCD) Form C-144 has been completed and signed by Mr. Stephen Weathers, Senior Environmental Specialist with DEFS. Subsequent to your review and written approval on the Form C-144, CRA anticipates no further action regarding this flare pit. As appropriate, please provide CRA with the final documentation of this pit closure.

If you have any questions or comments regarding this pit closure, please feel free to contact our Midland office at (432) 686-0086.

Sincerely,
CONESTOGA-ROVERS & ASSOCIATES

Todd Wells

Todd Wells
Project Manager

Thomas C. Larson
Operations Manager

Enclosures: Form C-144 with Flare Pit Soil Remediation and Closure Report (Attached)

Cc: Mr. Steve Weathers, DEFS

District I
1625 N. French Dr., Hobbs, NM 88240
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Energy Minerals and Natural Resources

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Form C-144
June 1, 2004

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Pit or Below-Grade Tank Registration or Closure

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

Operator: Duke Energy Field Services Telephone (505)677-5203 e-mail address:
Address: 1625 Illinois Camp Road Artesia, NM
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Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	(Yes) No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet (1000 feet or more)	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	30

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

Additional Comments: See attached Flare Pit Soil Remediation and Closure Report DEFS Artesia Gas Plant, Eddy County, NM for details

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 10/19/06
Printed Name/Title Stephen Weathers / Sr Env Specialist Signature

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

Approval:
Printed Name/Title ____ Signature ____ Date: ____

FLARE PIT SOIL REMEDIATION AND CLOSURE REPORT

DUKE ENERGY FIELD SERVICES
ARTESIA GAS PLANT
SECTION 7, T-18-S, R-28-E
EDDY COUNTY, NEW MEXICO

FLARE PIT SOIL REMEDIATION AND CLOSURE REPORT

DUKE ENERGY FIELD SERVICES
ARTESIA GAS PLANT
SECTION 7, T-18-S, R-28-E
EDDY COUNTY, NEW MEXICO

Prepared For:

Mr. Steve Weathers
DUKE ENERGY FIELD SERVICES
370 17th Street, Suite 2500
Denver, Colorado 80202

Prepared by:
Conestoga-Rovers & Associates

2135 S. Loop 250 West
Midland, TX 79705

Office: (432) 686-0086
Fax: (432) 686-0186

web:
http:\\www.CRAworld.com

OCTOBER 24, 2006
REF. NO. 043995 (3)

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) has prepared this Flare Pit Soil Remediation and Closure Report on behalf of Duke Energy Field Services (DEFS). The DEFS Artesia Flare Pit (hereafter referred to as the "Site") is located 11 miles east of Artesia in Section 7, T-18-S, R-28-E in Eddy County, New Mexico (FIGURE 1). The flare pit is associated with an active gas plant facility which has been in operation for approximately 40 years. DEFS is in the process of decommissioning the flare pit. The facility is currently owned and operated by DEFS.

A document entitled *Flare Pit Soil Remediation and Closure Workplan,* Duke Energy Field Services, Artesia Gas Plant dated May 23, 2006 was prepared by CRA on behalf of DEFS. The workplan was submitted to Mr. Mike Bratcher with the NMOCD District 2 office in Artesia, New Mexico, and was approved on August 14, 2006.

Based on the field activities outlined in the New Mexico Oil Conservation Division (NMOCD) approved Workplan and performed at the Site we have met the requirements for pit closure. We request pit closure by the New Mexico Oil Conservation Division. The Closure Report elements include:

- Procedures utilized to assess the extent of contamination;
- Procedures utilized to manage, remediate and dispose of all contaminated soil and wastes; and
- Documentation of closure activities associated with the subject flare pit.

This document presents the results of initial and final confirmation soil sampling results performed at the Site, regulatory framework for closure activities as well as a completed NMOCD Form C-144, Pit or Below-Grade Tank Registration or Closure, to facilitate Site closure. Site details, sampling locations and the remedial excavation area are presented as FIGURES 2 and 3. Appendices are provided to include laboratory analytical reports and waste management documentation including the signed Certificate of Waste Status and Non-Hazardous Waste Manifest forms that indicate receipt of the 30 cubic yards of contaminated soil by Artesia Aeration.

2.0 REGULATORY FRAMEWORK AND SITE CLASSIFICATION

The NMOCD has regulatory jurisdiction over certain oil and gas production operations in the State of New Mexico, including the closure of pits and below-grade tanks. The NMOCD document entitled *Pit and Below-Grade Tank Guidelines,* dated November 1, 2004, was reviewed in the context of planned decommissioning activities for the DEFS Artesia Flare Pit location. The guidelines apply to pits (including flare pits) classified as 1) exempt for Federal Resources Conservation and Recovery Act (RCRA) Subtitle C Regulations, or 2) non-hazardous, by characteristic testing. Prior to final closure of an unlined pit (or above grade pit) the operator was required to perform an assessment to evaluate the extent to which soils and/or groundwater may have been impacted by its operation. Assessment results formed the basis of the required remediation. Remediation was performed in accordance to NMOCD *Guidelines for Remediation of Spills, Leaks, and Releases,* dated August 13, 1993.

This project was conducted under the regulatory jurisdiction of the NMOCD, which requires the vadose zone shall be abated so that water contaminants in the vadose zone will not, with reasonable probability, contaminate groundwater or surface water (toxic pollutants as defined in 20.6.2.7 New Mexico Administration Code were not present) through leaching, percolation, or other transport mechanisms (19.15.1.19 NMAC, Subsection B, Paragraphs 1 and 2). The NMOCD hydrocarbon soil remediation levels were determined by ranking on-site criteria, as outlined in the NMOCD *Guidelines for Remediation of Spills, Leaks, and Releases,* dated August 13, 1993. The ranking criteria were based on three site characteristics: depth to groundwater, wellhead protection, and distance to surface water.

Currently, one windmill is located within 1,000 feet of the flare pit with an estimated depth to groundwater of greater than 50 feet below ground surface (bgs) but less than 100 feet bgs. No surface water bodies are located within 1,000 feet or less of the flare pit. The table below illustrates the ranking criteria, used by the NMOCD, and includes site-specific characteristics at the Site.

Criteria	Site Characteristics	Ranking Score
Depth to Ground Water	50-99 feet	10
Wellhead Protection Area	>200 feet to <1,000 feet	20
Distance to Surface Water	>1,000 feet	0
	Total Ranking Score	30

Based on the Site's characteristics and the "Guidelines for Remediation of Spills, Leaks, and Releases" the site has a ranking score of 30. Consequently, the ranking criteria Recommended Remediation Action Levels (RRALs) of 10 milligrams per kilogram (mg/Kg) Benzene, 50 mg/Kg total Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX), and 100 mg/Kg Total Petroleum Hydrocarbons (TPH) were utilized for remediation at the Site.

3.0 INITIAL SOIL SAMPLING ANALYTICAL RESULTS

DEFS contacted CRA on January 18, 2006 regarding the evaluation of closure activities on the flare pit. In response, CRA and DEFS personnel were onsite January 23, 2006 to collect six grab soil samples to assess and confirm conditions at the former flare pit location. One sample from each of the north, south, east, west walls and two grab bottom samples were collected. The soil samples were delivered to TraceAnalysis, Inc. (Trace) in Lubbock, Texas for TPH (GRO/DRO) analysis by EPA Method 8015B (modified), BTEX analysis by EPA Method 8021B and Total Metals analysis by EPA method S 6010B. The Site Details and Assessment Sample Location Map (FIGURE 2) illustrate the assessment soil sample locations. The analytical data indicated that five of the six (BTEX/TPH) results were below NMOCD RRALs (TABLE I). Only one sample indicated the necessity to further excavate the north end of the Site because Total TPH concentrations were above RRALs. The analytical results for BTEX and TPH from the initial sampling event are presented in TABLE I, total metal results are in TABLE II and laboratory reports are in APPENDIX A.

4.0 SOIL REMEDIATION AND FINAL CONFIRMATION SAMPLING ACTIVITIES

The soil remediation activities were performed in accordance to tasks outlined in the May 23, 2006 workplan approved by the District 2 NMOCD office.

The initial soil assessment activities performed by CRA effectively delineated the horizontal extent of hydrocarbon-affected soils in accordance to NMOCD regulatory guidance. Analytical results indicated that the primary area of affected soils above NMOCD RRALs at the Site was centered around the North Bottom soil sample location (FIGURE 2).

The Soil Remediation and Closure activities at the DEFS Flare Pit included the following tasks:

- Task 1 - Site Preparation
- Task 2 - Excavation Activities
- Task 3 - Soil-Staging and Hauling Activities
- Task 4 - Final Confirmation Soil Sampling and Analytical Results
- Task 5 - Waste Management
- Task 6 - Site Restoration and Closure Request

The following sections present details in association with the general tasks outlined in the approved workplan.

Task 1 – Site Preparation

A project specific Health and Safety Plan (HASP) was prepared by CRA prior to conducting the soil excavation, removal, and backfilling (as appropriate) activities. Safety and health issues associated with this project included working around excavations, heavy equipment, hydrocarbon-affected soils, and underground utilities such as pipelines. CRA representatives implemented the HASP in the field.

Field activities required identification of the proposed remedial excavation, communication with New Mexico utility notification services, as well as coordination of activities with DEFS personnel to facilitate a safe working environment at the active Artesia Gas Plant facility. A pre-start site safety review was implemented prior to beginning field activities in accordance with HASP objectives – including communication and review of DEFS site-specific safety requirements.

The pre-approval of waste management activities such as waste characterization, transportation and disposal/treatment of impacted soils is also included (Task 5 – Waste Management).

The permit approval for Artesia Aeration LLC, designated facility for the waste materials associated with the project, is provided in APPENDIX B.
The waste characterization activities were based on conversations with Mr. Ed Martin of the NMOCD regarding this project.

Task 2 - Excavation Activities

Subsequent to the completion of the Site preparation task, excavation activities were implemented at the excavation area identified in FIGURE 3. Excavation walls were sloped in accordance to the Occupational Safety and Health Administration (OSHA) guidelines. Based on the initial soil sampling results for the Site, excavation activities were limited to the north end of the flair pit and did not exceed 4.5-feet bgs. Heavy equipment was utilized to remove affected soils for staging adjacent to the remedial excavation.

Soil samples were periodically collected within the excavation at various depths and locations based on the judgment of CRA field personnel to assess the completeness of the soil removal activities. The soil samples were field screened utilizing a photo-ionization detector (PID) calibrated to a 100-ppm isobutylene standard for volatile compounds with less than 10.6 electron volts ionization potential. Each soil sample was placed in resealable plastic bags leaving a headspace for volatile organic compounds (VOCs) to collect. After sufficient time had passed to allow for volatilization, the headspace in each bagged sample was measured using the PID. Visual observation of soil conditions was also utilized to determine the limits of the excavation. Areas exhibiting excessive VOC concentrations and/or visual impacts were over-excavated and re-sampled until reduced concentrations and/or limited visual impacts were documented.

Task 3 - Soil-Staging and Hauling Activities

Hydrocarbon-affected soils removed from the remedial excavation area were staged adjacent to the excavation on a polyethylene liner. The waste materials were identified for offsite transport to the Artesia Aeration landfarm facility (see Task 5 - Waste Management). The materials were loaded into dump trucks at the prescribed staging area. Appropriate documentation, including shipping manifests, were maintained for all soils transported offsite (APPENDIX C).

Task 4 – Final Confirmation Soil Sampling and Analytical Results

The NMOCD District 2 Artesia office was notified at least 48 hours in advance of the confirmation sampling activities. On September 1, 2006, CRA personnel were on site to witness the excavation of the north end of the pit and to collect the soil samples for analysis. The Site Details and Confirmation Sample Location Map (FIGURE 3) presents the confirmation soil sample locations. The north end of the pit was excavated to a depth of 4.5 feet bgs in the bottom. Six confirmation samples were taken from the north, south, east, west sidewalls and (2) bottom sample locations.

The soil samples were delivered to TraceAnalysis, Inc. (Trace) in Midland, Texas for TPH (GRO/DRO) analysis by EPA Method 8015B (modified) and BTEX analyses by EPA Method 8021B. Each container was labeled, placed on ice in an insulated cooler, and chilled to a temperature of approximately 40°F (4°C). The cooler was sealed for shipment to the laboratory. Proper chain-of-custody documentation accompanied the samples to the laboratory.

TABLE III, Final Soil Confirmation Summary of Analytical Results for BTEX/TPH demonstrates that all six samples collected were below NMOCD RRALs for the appropriate analytes.

Task 5 – Waste Management

A NMOCD-Request for Approval to Accept Solid Waste Form C-138 (APPENDIX C) was submitted to the NMOCD along with the waste characterization analytical data in advance of the waste transportation activities. Agency pre-approval was obtained for the proposed waste shipments to the NMOCD-permitted Artesia Aeration facility. The request was approved as RCRA Non-exempt waste on May 1, 2006 by Mr. Edward Martin of the NMOCD. A Certificate of Waste Status Form (APPENDIX C) was completed and signed by DEFS prior to disposal of any waste at the landfarm.

Hydrocarbon-affected soils removed from the Site were transported for offsite disposal/treatment at the Artesia Aeration facility located near Maljamar, New Mexico. The soils were identified as RCRA non-exempt waste. Artesia Aeration currently holds Permit NM-01-0030 from the New Mexico Energy, Minerals, and Natural Resources Department – Oil Conservation Division (NMOCD), to operate a commercial surface waste management facility (APPENDIX B). CRA understands that Artesia Aeration is a DEFS-approved facility. The volume of soils transported to the facility was 30 cubic yards. Manifest documentation was maintained to track the actual amount of soil removed from the Site and is provided in APPENDIX C.

Task 6 – Site Restoration and Closure Request

Final grading of construction-affected surface areas will be performed to mitigate wind erosion and facilitate re-vegetation. Re-vegetation efforts will be performed in coordination with the landowner (understood to be DEFS).

Based on the field activities outlined in the NMOCD approved Workplan and performed at the Site we have met the requirements for pit closure. With the completed NMOCD Form C-144 and this report we request closure of the DEFS Artesia Flare Pit Site by the New Mexico Oil Conservation Division. Please contact CRA at (432) 686-0086 or Mr. Steve Weathers with DEFS at (303) 605-1718 with any questions regarding this request.

All of Which is Respectfully Submitted,
Conestoga-Rovers & Associates

Todd Wells
Project Manager

Thomas C. Larson
Operations Manager

RED LAKE QUADRANGLE
NEW MEXICO

LAT= 32° 45' 24.6" N
LONG= 104° 12' 45.1" W

PHOTOREVISED 1955

USGS MAP SERIES 1:24000

0 1/2 1 2
(Miles)

0 2000 4000 6000 8000
(Feet)

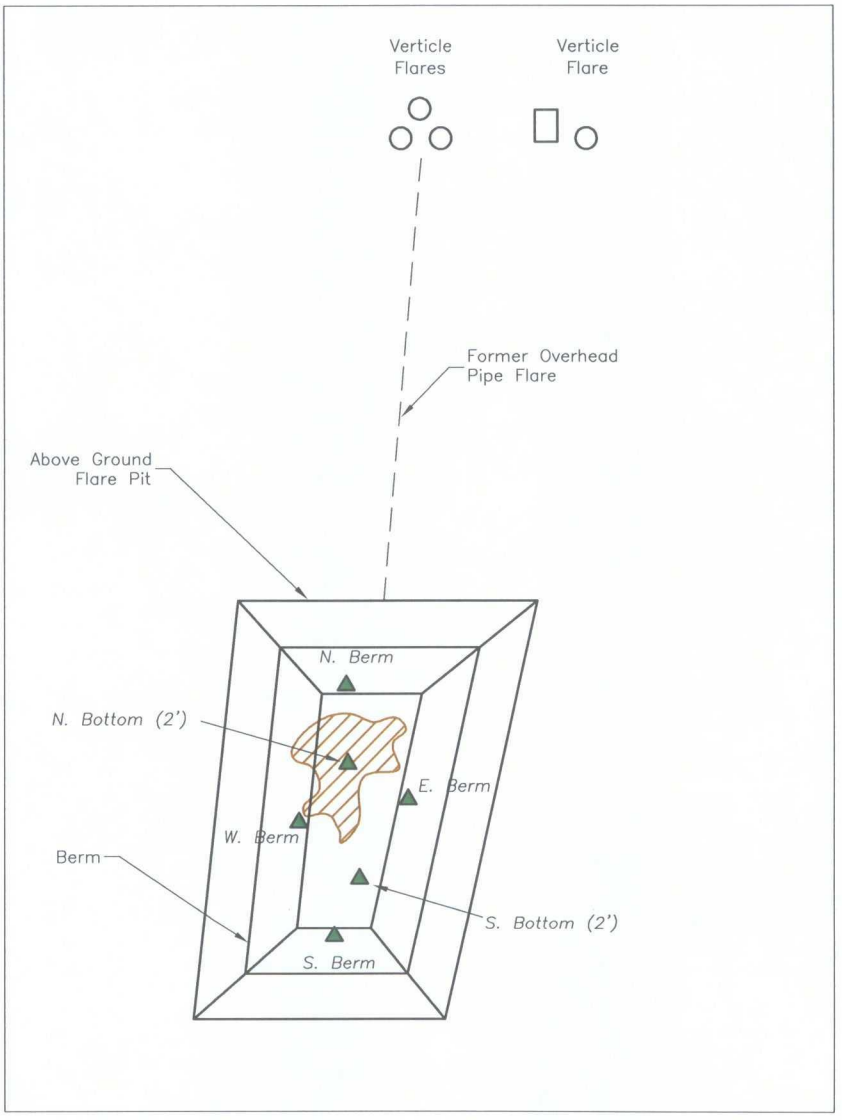
CONTOUR INTERVAL 10 FEET

NORTH

043995 SLR 101206

SITE LOCATION MAP	JOB No. 043995
DUKE ENERGY FIELD SERVICES FLARE PIT ARTESIA, EDDY COUNTY, NEW MEXICO	FIGURE 1

APPROXIMATE
SCALE IN FEET
0 10 20



LEGEND

- Sample Location
- Proposed Excavation Area

NOTE:

Soil sample location shown were collected on January 23, 2006.

043995 SLR 101306

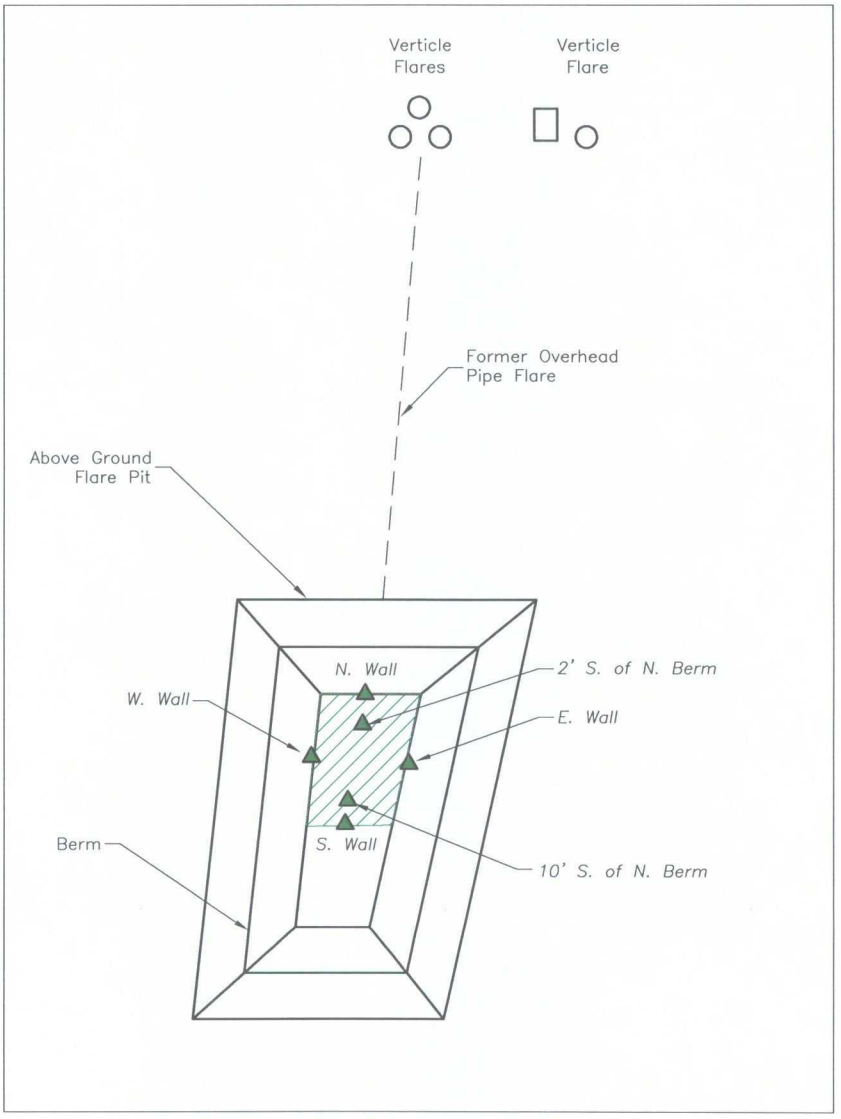
SITE DETAILS AND ASSESSMENT SAMPLE LOCATION MAP

DUKE ENERGY FIELD SERVICES
FLARE PIT ARTESIA, EDDY COUNTY, NEW MEXICO

JOB No. 043995

FIGURE 2

APPROXIMATE
SCALE IN FEET
0 10 20



LEGEND
- Sample Location
- Excavation Area

NOTE:

Soil sample location shown were collected on September 1, 2006.

043995 SLR 101306

SITE DETAILS AND CONFIRMATION SAMPLE LOCATION MAP	JOB No. 043995
DUKE ENERGY FIELD SERVICES FLARE PIT ARTESIA, EDDY COUNTY, NEW MEXICO	FIGURE 3

TABLE I
INITIAL SOIL ASSESSMENT (BTEX/TPH)
SUMMARY OF SOIL ANALYTICAL RESULTS
DUKE ENERGY FIELD SERVICES
ARTESIA FLARE PIT
EDDY COUNTY, NEW MEXICO

Sample ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH DRO	TPH GRO	TOTAL TPH DRO/GRO
		NMOCD RRALs							
		10[1] (mg/Kg)	--- (mg/Kg)	--- (mg/Kg)	--- (mg/Kg)	50[1] (mg/Kg)	--- (mg/Kg)	--- (mg/Kg)	100[1] (mg/Kg)
E Berm	01/23/06	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00	<50.0
S. Berm	01/23/06	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00	<50.0
W. Berm	01/23/06	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00	<50.0
N. Berm	01/23/06	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00	<50.0
N. Bottom (2')	01/23/06	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	**682**	<5.00	**682**
S. Bottom (2')	01/23/06	<0.0100	<0.0100	<0.00100	<0.0100	<0.0100	<50.0	<1.00	<50.0

Notes:

1. New Mexico Oil Conservation Division *Guidelines for Remediation of Leaks, Spills and Releases, Recommended Remediation Action Levels (RRALs) for* Benzene, Total BTEX and Total TPH (DRO/GRO)
2. Results shown in milligrams per kilogram
3. BTEX and MTBE analysis by EPA Method 8021B; TPH DRO/GRO by EPA Method 8015B modified.
4. Bolded areas indicate detection above laboratory standards.
5. Shaded areas indicated detection above regulatory limits.

TABLE II
INITIAL SOIL ASSESSMENT (TOTAL METALS)
SUMMARY OF SOIL ANALYTICAL RESULTS
DUKE ENERGY FIELD SERVICES
ARTESIA FLARE PIT
EDDY COUNTY, NEW MEXICO

Sample ID	Date	Total Silver	Total Arsenic	Total Barium	Total Cadmium	Total Chromium	Total Mercury	Total Lead	Total Selenium
		NMOCD RRALs							
		391[1] (mg/Kg)	3.9[1] (mg/Kg)	5450[1] (mg/Kg)	39[1] (mg/Kg)	10,000[1] (mg/Kg)	6.11[1] (mg/Kg)	400[1] (mg/Kg)	391[1] (mg/Kg)
E Berm	01/23/06	1.54	<1.00	398	<0.500	52.1	<0.0400	<1.00	<1.00
S. Berm	01/23/06	1.15	<1.00	266	0.542	12.3	0.123	4.00	<1.00
W. Berm	01/23/06	1.20	<1.00	430	<0.500	40.1	<0.0400	1.95	<1.00
N. Berm	01/23/06	1.31	<1.00	310	<0.500	12.4	<0.0400	1.83	<1.00
N. Bottom (2')	01/23/06	<0.200	4.56	59.5	22.6	93.5	0.115	17.9	<1.00
S. Bottom (2')	01/23/06	<0.200	<1.00	189	1.73	18.8	<0.040	11.6	<1.00

Notes:

1. New Mexico Environmental Department Hazardous Waste Bureau Voluntary Remediation Program for Residential Soils
2. Total Metals by EPA Method S 6010 B

TABLE III
FINAL SOIL CONFIRMATION (BTEX / TPH)
SUMMARY OF ANALYTICAL RESULTS
DUKE ENERGY FIELD SERVICES
ARTESIA FLARE PIT
EDDY COUNTY, NEW MEXICO

Sample ID	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH DRO	TPH GRO	TOTAL TPH DRO/GRO
		NMOCD STANDARDS							
		10[1] (mg/Kg)	--- (mg/Kg)	--- (mg/Kg)	--- (mg/Kg)	50[1] (mg/Kg)	--- (mg/Kg)	--- (mg/Kg)	100[1] (mg/Kg)
2' S. of N. Berm	09/01/06	<0.0100	0.0268	0.0110	0.0499	0.0877	<50.0	<1.00	<50.0
10' S. of N. Berm	09/01/06	<0.0100	0.0192	<0.0100	0.0263	0.0455	<50.0	<1.00	<50.0
S. Wall	09/01/06	<0.0100	0.0177	<0.0100	0.0235	0.0412	<50.0	<1.00	<50.0
E. Wall	09/01/06	<0.0100	0.0183	<0.0100	0.0245	0.0428	<50.0	<1.00	<50.0
W. Wall	09/01/06	<0.0100	0.0186	<0.0100	0.0220	0.0406	<50.0	<1.00	<50.0
N. Wall	09/01/06	<0.0100	0.0177	<0.0100	0.0214	0.0391	<50.0	<1.00	<50.0

Notes:

1. New Mexico Oil Conservation Division *Guidelines for Remediation of Leaks, Spills and Releases*
2. Results shown in mg/Kg
3. BTEX analysis by EPA Method 8021B; TPH DRO/GRO by EPA Method 8015B modified.
4. Shaded areas indicated detection above regulatory limits.

APPENDIX A

LABORATORY ANALYTICAL REPORTS

Summary Report

Edward Philley
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: January 31, 2006

Work Order: 6012505

Project Location: Eddy County,NM
Project Name: Duke-Artesia Flare Pit
Project Number: 043995

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
83009	E. Berm	soil	2006-01-23	12:50	2006-01-25
83010	S. Berm	soil	2006-01-23	12:57	2006-01-25
83011	W. Berm	soil	2006-01-23	13:05	2006-01-25
83012	N. Berm	soil	2006-01-23	13:13	2006-01-25
83013	N Bottom	soil	2006-01-23	13:25	2006-01-25
83014	S. Bottom	soil	2006-01-23	13:33	2006-01-25

	BTEX				MTBE	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
83009 - E. Berm	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
83010 - S. Berm	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
83011 - W. Berm	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
83012 - N. Berm	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
83013 - N Bottom	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	**682**	<5.00
83014 - S. Bottom	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00

Sample: 83009 - E. Berm

Param	Flag	Result	Units	RL
Total Silver		**1.54**	mg/Kg	0.200
Total Arsenic		<1.00	mg/Kg	1.00
Total Barium		**398**	mg/Kg	1.00
Total Cadmium		<0.500	mg/Kg	0.500
Total Chromium		**52.1**	mg/Kg	1.00
Total Mercury		<0.0400	mg/Kg	0.0400
Total Lead		<1.00	mg/Kg	1.00
Total Selenium		<1.00	mg/Kg	1.00

Sample: 83010 - S. Berm

continued ...

sample 83010 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Total Silver		**1.15**	mg/Kg	0.200
Total Arsenic		<1.00	mg/Kg	1.00
Total Barium		**266**	mg/Kg	1.00
Total Cadmium		**0.542**	mg/Kg	0.500
Total Chromium		**12.3**	mg/Kg	1.00
Total Mercury		**0.123**	mg/Kg	0.0400
Total Lead		**4.00**	mg/Kg	1.00
Total Selenium		<1.00	mg/Kg	1.00

Sample: 83011 - W. Berm

Param	Flag	Result	Units	RL
Total Silver		**1.20**	mg/Kg	0.200
Total Arsenic		<1.00	mg/Kg	1.00
Total Barium		**430**	mg/Kg	1.00
Total Cadmium		<0.500	mg/Kg	0.500
Total Chromium		**40.1**	mg/Kg	1.00
Total Mercury		<0.0400	mg/Kg	0.0400
Total Lead		**1.95**	mg/Kg	1.00
Total Selenium		<1.00	mg/Kg	1.00

Sample: 83012 - N. Berm

Param	Flag	Result	Units	RL
Total Silver		**1.31**	mg/Kg	0.200
Total Arsenic		<1.00	mg/Kg	1.00
Total Barium		**310**	mg/Kg	1.00
Total Cadmium		<0.500	mg/Kg	0.500
Total Chromium		**12.4**	mg/Kg	1.00
Total Mercury		<0.0400	mg/Kg	0.0400
Total Lead		**1.83**	mg/Kg	1.00
Total Selenium		<1.00	mg/Kg	1.00

Sample: 83013 - N Bottom

Param	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.200
Total Arsenic		**4.56**	mg/Kg	1.00
Total Barium		**59.5**	mg/Kg	1.00
Total Cadmium		**22.6**	mg/Kg	0.500
Total Chromium		**93.5**	mg/Kg	1.00
Total Mercury		**0.115**	mg/Kg	0.0400
Total Lead		**17.9**	mg/Kg	1.00
Total Selenium		<1.00	mg/Kg	1.00

Sample: 83014 - S. Bottom

Param	Flag	Result	Units	RL
Total Silver		<0.200	mg/Kg	0.200
Total Arsenic		<1.00	mg/Kg	1.00
Total Barium		**189**	mg/Kg	1.00
Total Cadmium		**1.73**	mg/Kg	0.500
Total Chromium		**18.8**	mg/Kg	1.00
Total Mercury		<0.0400	mg/Kg	0.0400
Total Lead		**11.6**	mg/Kg	1.00
Total Selenium		<1.00	mg/Kg	1.00

Analytical and Quality Control Report

Edward Philley
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: January 31, 2006

Work Order: 6012505

Project Location: Eddy County,NM
Project Name: Duke-Artesia Flare Pit
Project Number: 043995

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
83009	E. Berm	soil	2006-01-23	12:50	2006-01-25
83010	S. Berm	soil	2006-01-23	12:57	2006-01-25
83011	W. Berm	soil	2006-01-23	13:05	2006-01-25
83012	N. Berm	soil	2006-01-23	13:13	2006-01-25
83013	N Bottom	soil	2006-01-23	13:25	2006-01-25
83014	S. Bottom	soil	2006-01-23	13:33	2006-01-25

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.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 83009 - E. Berm

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	24210	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0100	mg/Kg	10	0.00100
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.916	mg/Kg	10	0.100	92	40.8 - 133.7
4-Bromofluorobenzene (4-BFB)		0.671	mg/Kg	10	0.100	67	40.8 - 140.1

Sample: 83009 - E. Berm

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	24236	Date Analyzed:	2006-01-27	Analyzed By:	RR
Prep Batch:	21286	Sample Preparation:	2006-01-26	Prepared By:	DS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	24289	Date Analyzed:	2006-01-30	Analyzed By:	TP
Prep Batch:	21346	Sample Preparation:	2006-01-30	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		**1.54**	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		**398**	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		**52.1**	mg/Kg	1	1.00
Total Mercury		<0.0400	mg/Kg	1	0.0400
Total Lead		<1.00	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 83009 - E. Berm

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	24274	Date Analyzed:	2006-01-28	Analyzed By:	DS
Prep Batch:	21330	Sample Preparation:	2006-01-27	Prepared By:	DS

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		173	mg/Kg	1	150	115	50 - 150

Sample: 83009 - E. Berm

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	24211	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.902	mg/Kg	10	0.100	90	68 - 129.6
4-Bromofluorobenzene (4-BFB)		0.784	mg/Kg	10	0.100	78	71.9 - 123.7

Sample: 83010 - S. Berm

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	24210	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0100	mg/Kg	10	0.00100
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.934	mg/Kg	10	0.100	93	40.8 - 133.7
4-Bromofluorobenzene (4-BFB)		0.676	mg/Kg	10	0.100	68	40.8 - 140.1

Sample: 83010 - S. Berm

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	24236	Date Analyzed:	2006-01-27	Analyzed By:	RR
Prep Batch:	21286	Sample Preparation:	2006-01-26	Prepared By:	DS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	24289	Date Analyzed:	2006-01-30	Analyzed By:	TP
Prep Batch:	21346	Sample Preparation:	2006-01-30	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		**1.15**	mg/Kg	1	0.200

continued . . .

sample 83010 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		**266**	mg/Kg	1	1.00
Total Cadmium		**0.542**	mg/Kg	1	0.500
Total Chromium		**12.3**	mg/Kg	1	1.00
Total Mercury		**0.123**	mg/Kg	1	0.0400
Total Lead		**4.00**	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 83010 - S. Berm

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	24274	Date Analyzed:	2006-01-28	Analyzed By:	DS
Prep Batch:	21330	Sample Preparation:	2006-01-27	Prepared By:	DS

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		172	mg/Kg	1	150	114	50 - 150

Sample: 83010 - S. Berm

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	24211	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.929	mg/Kg	10	0.100	93	68 - 129.6
4-Bromofluorobenzene (4-BFB)		0.781	mg/Kg	10	0.100	78	71.9 - 123.7

Sample: 83011 - W. Berm

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	24210	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0100	mg/Kg	10	0.00100

continued ...

sample 83011 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.956	mg/Kg	10	0.100	96	40.8 - 133.7
4-Bromofluorobenzene (4-BFB)		0.822	mg/Kg	10	0.100	82	40.8 - 140.1

Sample: 83011 - W. Berm

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	24236	Date Analyzed:	2006-01-27	Analyzed By:	RR
Prep Batch:	21286	Sample Preparation:	2006-01-26	Prepared By:	DS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	24289	Date Analyzed:	2006-01-30	Analyzed By:	TP
Prep Batch:	21346	Sample Preparation:	2006-01-30	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		**1.20**	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		**430**	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		**40.1**	mg/Kg	1	1.00
Total Mercury		<0.0400	mg/Kg	1	0.0400
Total Lead		**1.95**	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 83011 - W. Berm

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	24274	Date Analyzed:	2006-01-28	Analyzed By:	DS
Prep Batch:	21330	Sample Preparation:	2006-01-27	Prepared By:	DS

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		205	mg/Kg	1	150	136	50 - 150

Sample: 83011 - W. Berm

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	24211	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.932	mg/Kg	10	0.100	93	68 - 129.6
4-Bromofluorobenzene (4-BFB)		0.950	mg/Kg	10	0.100	95	71.9 - 123.7

Sample: 83012 - N. Berm

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	24210	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0100	mg/Kg	10	0.00100
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.01	mg/Kg	10	0.100	101	40.8 - 133.7
4-Bromofluorobenzene (4-BFB)		0.872	mg/Kg	10	0.100	87	40.8 - 140.1

Sample: 83012 - N. Berm

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	24236	Date Analyzed:	2006-01-27	Analyzed By:	RR
Prep Batch:	21286	Sample Preparation:	2006-01-26	Prepared By:	DS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	24289	Date Analyzed:	2006-01-30	Analyzed By:	TP
Prep Batch:	21346	Sample Preparation:	2006-01-30	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		**1.31**	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		**310**	mg/Kg	1	1.00
Total Cadmium		<0.500	mg/Kg	1	0.500
Total Chromium		**12.4**	mg/Kg	1	1.00
Total Mercury		<0.0400	mg/Kg	1	0.0400

continued . . .

sample 83012 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Total Lead		**1.83**	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 83012 - N. Berm

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	24274	Date Analyzed:	2006-01-28	Analyzed By:	DS
Prep Batch:	21330	Sample Preparation:	2006-01-27	Prepared By:	DS

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		197	mg/Kg	1	150	131	50 - 150

Sample: 83012 - N. Berm

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	24211	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.989	mg/Kg	10	0.100	99	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.01	mg/Kg	10	0.100	101	71.9 - 123.7

Sample: 83013 - N Bottom

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	24210	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0500	mg/Kg	50	0.00100
Benzene	[1]	<0.0500	mg/Kg	50	0.00100
Toluene		<0.0500	mg/Kg	50	0.00100
Ethylbenzene		<0.0500	mg/Kg	50	0.00100

continued ...

[1] Sample ran at dilution due to surfactants.

sample 83013 continued . . .

Parameter	Flag	RL Result	Units	Dilution	RL
Xylene		<0.0500	mg/Kg	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[2]	1.12	mg/Kg	50	0.100	22	40.8 - 133.7
4-Bromofluorobenzene (4-BFB)	[3]	1.02	mg/Kg	50	0.100	20	40.8 - 140.1

Sample: 83013 - N Bottom

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	24236	Date Analyzed:	2006-01-27	Analyzed By:	RR
Prep Batch:	21286	Sample Preparation:	2006-01-26	Prepared By:	DS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	24289	Date Analyzed:	2006-01-30	Analyzed By:	TP
Prep Batch:	21346	Sample Preparation:	2006-01-30	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		**4.56**	mg/Kg	1	1.00
Total Barium		**59.5**	mg/Kg	1	1.00
Total Cadmium		**22.6**	mg/Kg	1	0.500
Total Chromium		**93.5**	mg/Kg	1	1.00
Total Mercury		**0.115**	mg/Kg	1	0.0400
Total Lead		**17.9**	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

Sample: 83013 - N Bottom

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	24292	Date Analyzed:	2006-01-30	Analyzed By:	DS
Prep Batch:	21349	Sample Preparation:	2006-01-30	Prepared By:	DS

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**682**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[4]	480	mg/Kg	1	150	320	57.5 - 139

Sample: 83013 - N Bottom

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	24211	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

[2]Surrogate recovery out due to dilution caused by surfactants in the sample.
[3]Surrogate recovery out due to dilution caused by surfactants in the sample.
[4]High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO	[5]	<5.00	mg/Kg	50	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[6]	1.17	mg/Kg	50	0.100	23	68 - 129.6
4-Bromofluorobenzene (4-BFB)	[7]	1.17	mg/Kg	50	0.100	23	71.9 - 123.7

Sample: 83014 - S. Bottom

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	24210	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
MTBE		<0.0100	mg/Kg	10	0.00100
Benzene		<0.0100	mg/Kg	10	0.00100
Toluene		<0.0100	mg/Kg	10	0.00100
Ethylbenzene		<0.0100	mg/Kg	10	0.00100
Xylene		<0.0100	mg/Kg	10	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.913	mg/Kg	10	0.100	91	40.8 - 133.7
4-Bromofluorobenzene (4-BFB)		0.706	mg/Kg	10	0.100	71	40.8 - 140.1

Sample: 83014 - S. Bottom

Analysis:	Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	S 3050B
QC Batch:	24236	Date Analyzed:	2006-01-27	Analyzed By:	RR
Prep Batch:	21286	Sample Preparation:	2006-01-26	Prepared By:	DS
Analysis:	Total 8 Metals	Analytical Method:	S 7471A	Prep Method:	N/A
QC Batch:	24289	Date Analyzed:	2006-01-30	Analyzed By:	TP
Prep Batch:	21346	Sample Preparation:	2006-01-30	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
Total Silver		<0.200	mg/Kg	1	0.200
Total Arsenic		<1.00	mg/Kg	1	1.00
Total Barium		**189**	mg/Kg	1	1.00
Total Cadmium		**1.73**	mg/Kg	1	0.500
Total Chromium		**18.8**	mg/Kg	1	1.00
Total Mercury		<0.0400	mg/Kg	1	0.0400
Total Lead		**11.6**	mg/Kg	1	1.00
Total Selenium		<1.00	mg/Kg	1	1.00

[5]Sample ran at dilution due to surfactants.
[6]Surrogate recovery out due to dilution caused by surfactants in the sample.
[7]Surrogate recovery out due to dilution caused by surfactants in the sample.

Sample: 83014 - S. Bottom

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	24274	Date Analyzed:	2006-01-28	Analyzed By:	DS
Prep Batch:	21330	Sample Preparation:	2006-01-27	Prepared By:	DS

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		198	mg/Kg	1	150	132	50 - 150

Sample: 83014 - S. Bottom

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	24211	Date Analyzed:	2006-01-25	Analyzed By:	MT
Prep Batch:	21279	Sample Preparation:	2006-01-25	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	10	0.100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.912	mg/Kg	10	0.100	91	68 - 129.6
4-Bromofluorobenzene (4-BFB)		0.817	mg/Kg	10	0.100	82	71.9 - 123.7

Method Blank (1) QC Batch: 24210

Parameter	Flag	MDL Result	Units	RL
MTBE		<0.0152	mg/Kg	0.001
Benzene		<0.00333	mg/Kg	0.001
Toluene		<0.00353	mg/Kg	0.001
Ethylbenzene		<0.00339	mg/Kg	0.001
Xylene		<0.0103	mg/Kg	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.922	mg/Kg	10	0.100	92	74.5 - 114
4-Bromofluorobenzene (4-BFB)		0.662	mg/Kg	10	0.100	66	36.6 - 112

Method Blank (1) QC Batch: 24211

Parameter	Flag	MDL Result	Units	RL
GRO		2.12	mg/Kg	0.1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.08	mg/Kg	10	0.100	108	81.8 - 109
4-Bromofluorobenzene (4-BFB)		0.794	mg/Kg	10	0.100	79	50.7 - 113

Method Blank (1) QC Batch: 24236

Parameter	Flag	MDL Result	Units	RL
Total Silver		<0.0444	mg/Kg	0.2
Total Arsenic		<0.228	mg/Kg	1
Total Barium		<0.601	mg/Kg	1
Total Cadmium		<0.0795	mg/Kg	0.5
Total Chromium		<0.125	mg/Kg	1
Total Lead		<0.650	mg/Kg	1
Total Selenium		<0.767	mg/Kg	1

Method Blank (1) QC Batch: 24274

Parameter	Flag	MDL Result	Units	RL
DRO		<12.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		185	mg/Kg	1	150	123	50 - 150

Method Blank (1) QC Batch: 24289

Parameter	Flag	MDL Result	Units	RL
Total Mercury		<0.00880	mg/Kg	0.04

Method Blank (1) QC Batch: 24292

Parameter	Flag	MDL Result	Units	RL
DRO		<10.9	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		144	mg/Kg	1	150	96	57.5 - 139

Laboratory Control Spike (LCS-1) QC Batch: 24210

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.829	0.909	mg/Kg	10	0.100	<0.0152	83	9	81.2 - 105.8	10.6
Benzene	0.982	0.954	mg/Kg	10	0.100	<0.0333	98	3	83.6 - 107.3	20
Toluene	1.01	0.994	mg/Kg	10	0.100	<0.0353	101	2	81.8 - 108.6	20
Ethylbenzene	0.988	0.972	mg/Kg	10	0.100	<0.0339	99	2	76.4 - 113.9	20
Xylene	2.95	2.91	mg/Kg	10	0.300	<0.103	98	1	75.4 - 112.7	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)	0.930	0.974	mg/Kg	10	0.100	93	97	76.6 - 114
4-Bromofluorobenzene (4-BFB)	0.853	0.884	mg/Kg	10	0.100	85	88	72 - 111

Laboratory Control Spike (LCS-1) QC Batch: 24211

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	9.67	9.91	mg/Kg	10	1.00	<0.381	97	2	88.8 - 102.4	21

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	0.996	mg/Kg	10	0.100	100	100	80.4 - 113
4-Bromofluorobenzene (4-BFB)	1.02	0.990	mg/Kg	10	0.100	102	99	72.2 - 119

Laboratory Control Spike (LCS-1) QC Batch: 24236

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.8	11.9	mg/Kg	1	12.5	<0.0444	94	1	85 - 115	20
Total Arsenic	46.7	46.8	mg/Kg	1	50.0	<0.228	93	0	85 - 108	20
Total Barium	88.7	88.9	mg/Kg	1	100	<0.601	89	0	85 - 107	20
Total Cadmium	22.5	22.7	mg/Kg	1	25.0	<0.0795	90	1	85 - 103	20
Total Chromium	10.1	10.1	mg/Kg	1	10.0	<0.125	101	0	85 - 113	20
Total Lead	44.8	44.7	mg/Kg	1	50.0	<0.650	90	0	85 - 110	20
Total Selenium	44.2	43.9	mg/Kg	1	50.0	<0.767	88	1	85 - 100	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: 24274

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	246	248	mg/Kg	1	250	<12.0	98	1	70 - 130	20

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

continued...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	186	189	mg/Kg	1	150	124	126	50 - 150

Laboratory Control Spike (LCS-1) QC Batch: 24289

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.466	0.519	mg/Kg	1	0.500	<0.00880	93	11	79.5 - 121.1	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: 24292

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	243	249	mg/Kg	1	250	<10.9	97	2	84 - 118	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	151	151	mg/Kg	1	150	101	101	57.5 - 139

Matrix Spike (MS-1) QC Batch: 24210 Spiked Sample: 83009

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
MTBE	0.692	0.772	mg/Kg	10	0.100	<0.0152	69	11	55.9 - 144.2	16.5
Benzene	0.819	0.848	mg/Kg	10	0.100	<0.0333	82	4	50.1 - 124.5	20
Toluene	0.872	0.908	mg/Kg	10	0.100	<0.0353	87	4	51.6 - 128.1	20
Ethylbenzene	0.902	0.924	mg/Kg	10	0.100	<0.0339	90	2	53.6 - 135	20
Xylene	2.71	2.76	mg/Kg	10	0.300	<0.103	90	2	50.6 - 134.1	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
Trifluorotoluene (TFT)	0.892	0.921	mg/Kg	10	0.1	89	92	60.1 - 104
4-Bromofluorobenzene (4-BFB)	0.721	0.692	mg/Kg	10	0.1	72	69	63.1 - 105

Matrix Spike (MS-1) QC Batch: 24211 Spiked Sample: 83009

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	7.82	9.24	mg/Kg	10	1.00	<0.381	78	17	54.2 - 156.3	19.6

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)	0.726	0.794	mg/Kg	10	0.1	73	79	10 - 160
4-Bromofluorobenzene (4-BFB)	0.832	0.925	mg/Kg	10	0.1	83	92	10 - 174

Matrix Spike (MS-1) QC Batch: 24236 Spiked Sample:

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Silver	11.3	11.3	mg/Kg	1	12.5	<0.0444	90	0	76.3 - 115	20
Total Arsenic	47.8	48.0	mg/Kg	1	50.0	5.43	85	0	75 - 108	20
Total Barium [89]	922	929	mg/Kg	1	100	900	22	1	75 - 125	20
Total Cadmium	21.2	21.3	mg/Kg	1	25.0	2.12	76	0	75 - 100	20
Total Chromium	16.3	16.3	mg/Kg	1	10.0	6.76	95	0	75 - 125	20
Total Lead	45.7	45.8	mg/Kg	1	50.0	7.5	76	0	75 - 109	20
Total Selenium	44.8	44.8	mg/Kg	1	50.0	<0.767	90	0	75 - 100	20

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

Matrix Spike (MS-1) QC Batch: 24274 Spiked Sample: 83014

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	196	231	mg/Kg	1	250	<12.0	78	16	70 - 130	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	191	208	mg/Kg	1	150	127	139	50 - 150

Matrix Spike (MS-1) QC Batch: 24289 Spiked Sample: 82895

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Total Mercury	0.464	0.474	mg/Kg	1	0.500	0.015	90	2	80.1 - 125.3	20

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

Matrix Spike (MS-1) QC Batch: 24292 Spiked Sample: 83013

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO [1011]	1280	1380	mg/Kg	1	250	682	239	8	70 - 130	20

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

[8]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[9]Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[10]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[11]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	[12][13]	595	598	mg/Kg	1	150	397	399	57.5 - 139

Standard (ICV-1) QC Batch: 24210

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0895	90	85 - 115	2006-01-25
Benzene		mg/Kg	0.100	0.0987	99	85 - 115	2006-01-25
Toluene		mg/Kg	0.100	0.103	103	85 - 115	2006-01-25
Ethylbenzene		mg/Kg	0.100	0.100	100	85 - 115	2006-01-25
Xylene		mg/Kg	0.300	0.301	100	85 - 115	2006-01-25

Standard (CCV-1) QC Batch: 24210

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
MTBE		mg/Kg	0.100	0.0957	96	85 - 115	2006-01-25
Benzene		mg/Kg	0.100	0.0968	97	85 - 115	2006-01-25
Toluene		mg/Kg	0.100	0.101	101	85 - 115	2006-01-25
Ethylbenzene		mg/Kg	0.100	0.0981	98	85 - 115	2006-01-25
Xylene		mg/Kg	0.300	0.294	98	85 - 115	2006-01-25

Standard (ICV-1) QC Batch: 24211

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.958	96	85 - 115	2006-01-25

Standard (CCV-1) QC Batch: 24211

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.947	95	85 - 115	2006-01-25

Standard (ICV-1) QC Batch: 24236

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.123	98	90 - 110	2006-01-27
Total Arsenic		mg/Kg	1.00	0.976	98	90 - 110	2006-01-27

continued ...

[12]High surrogate recovery due to peak interference.
[13]High surrogate recovery due to peak interference.

standard continued...

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Barium		mg/Kg	1.00	0.970	97	90 - 110	2006-01-27
Total Cadmium		mg/Kg	1.00	0.984	98	90 - 110	2006-01-27
Total Chromium		mg/Kg	1.00	0.982	98	90 - 110	2006-01-27
Total Lead		mg/Kg	1.00	0.984	98	90 - 110	2006-01-27
Total Selenium		mg/Kg	1.00	0.977	98	90 - 110	2006-01-27

Standard (CCV-1) QC Batch: 24236

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Silver		mg/Kg	0.125	0.123	98	90 - 110	2006-01-27
Total Arsenic		mg/Kg	1.00	0.981	98	90 - 110	2006-01-27
Total Barium		mg/Kg	1.00	0.967	97	90 - 110	2006-01-27
Total Cadmium		mg/Kg	1.00	0.984	98	90 - 110	2006-01-27
Total Chromium		mg/Kg	1.00	0.984	98	90 - 110	2006-01-27
Total Lead		mg/Kg	1.00	0.988	99	90 - 110	2006-01-27
Total Selenium		mg/Kg	1.00	0.977	98	90 - 110	2006-01-27

Standard (ICV-1) QC Batch: 24274

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	243	97	75 - 125	2006-01-28

Standard (CCV-1) QC Batch: 24274

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	109	75 - 125	2006-01-28

Standard (ICV-1) QC Batch: 24289

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00461	92	90 - 110	2006-01-30

Standard (CCV-1) QC Batch: 24289

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Total Mercury		mg/L	0.00500	0.00493	99	80 - 120	2006-01-30

Standard (ICV-1) QC Batch: 24292

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	247	99	57.5 - 139	2006-01-30

Standard (CCV-1) QC Batch: 24292

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	57.5 - 139	2006-01-30

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296
email: lab@traceanalysis.com

TraceAnalysis, Inc.

155 McCutcheon,Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6012505

Company Name: CRA
Phone #: (432) 686-0086
Address: (Street, City, Zip)
Fax #:
e-mail: ePhilley@CRAworld.com
Contact Person: Edward (Ted) Phillay
Invoice to: (If different from above)
Project #: 043995
Project Name: Duke - Artesia Flare Pit
Project Location: Eddy county, NM
Sampler Signature:

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
83009	E. Berm	1	4oz		✓							✓		1/23	12:50
10	S. Berm	1	4oz		✓							✓		1/23	12:57
11	W. Berm	1	4oz		✓							✓		1/23	13:05
12	N. Berm	1	4oz		✓							✓		1/23	13:13
13	N. Bottom	1	4oz		✓							✓		1/23	13:25
14	S. Bottom	1	4oz		✓							✓		1/23	13:33

	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	TX 1005 Extended (C35)	PAH 8270C	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			Turn Around Time if different from standard	Hold
83009	✓	✓	✓			✓															
10	✓	✓	✓			✓															
11	✓	✓	✓			✓															
12	✓	✓	✓			✓															
13	✓	✓	✓			✓															
14	✓	✓	✓			✓															

Add 8015 Mod DRO/GRO

Relinquished by: Edward Phillay Date: 1-24-06 Time: 1445
Received by: Helen Shelton Date: 1/24/06 Time: 1445
Relinquished by: Helen Shelton Date: 1/24/06 Time: 1700
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Megan McCord Date: 1-25-06 Time: 0930

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

ORIGINAL COPY

LAB USE ONLY
Intact (Y / N)
Headspace Y (N) 48°
Temp
Log-in Review

REMARKS:

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

Carrier # Lone Star P1827749

Summary Report

Edward Philley
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: February 17, 2006

Work Order: 6012505

Project Location: Eddy County,NM
Project Name: Duke-Artesia Flare Pit
Project Number: 043995

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
83009	E. Berm	soil	2006-01-23	12:50	2006-01-25
83010	S. Berm	soil	2006-01-23	12:57	2006-01-25
83011	W. Berm	soil	2006-01-23	13:05	2006-01-25
83012	N. Berm	soil	2006-01-23	13:13	2006-01-25
83013	N Bottom	soil	2006-01-23	13:25	2006-01-25
83014	S. Bottom	soil	2006-01-23	13:33	2006-01-25

Sample: 83009 - E. Berm

Param	Flag	Result	Units	RL
Reactivity		**non-reactive**		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		**non-corrosive**	mm/yr	0.00
pH	[1]	**7.00**	s.u.	0.00
Ignitability		**non-ignitable**		0.00

Sample: 83010 - S. Berm

Param	Flag	Result	Units	RL
Reactivity		**non-reactive**		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		**non-corrosive**	mm/yr	0.00
pH	[2]	**7.00**	s.u.	0.00
Ignitability		**non-ignitable**		0.00

Sample: 83011 - W. Berm

[1]ph taken by ph paper due to sample conditions •
[2]ph taken by ph paper due to sample conditions •

Param	Flag	Result	Units	RL
Reactivity		**non-reactive**		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		**non-corrosive**	mm/yr	0.00
pH	[3]	**7.00**	s.u.	0.00
Ignitability		**non-ignitable**		0.00

Sample: 83012 - N. Berm

Param	Flag	Result	Units	RL
Reactivity		**non-reactive**		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		**non-corrosive**	mm/yr	0.00
pH	[4]	**7.00**	s.u.	0.00
Ignitability		**non-ignitable**		0.00

Sample: 83013 - N Bottom

Param	Flag	Result	Units	RL
Reactivity		**non-reactive**		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		**non-corrosive**	mm/yr	0.00
pH	[5]	**7.00**	s.u.	0.00
Ignitability		**non-ignitable**		0.00

Sample: 83014 - S. Bottom

Param	Flag	Result	Units	RL
Reactivity		**non-reactive**		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		**non-corrosive**	mm/yr	0.00
pH	[6]	**7.00**	s.u.	0.00
Ignitability		**non-ignitable**		0.00

[3]ph taken by ph paper due to sample conditions •
[4]ph taken by ph paper due to sample conditions •
[5]ph taken by ph paper due to sample conditions •
[6]ph taken by ph paper due to sample conditions •

Analytical and Quality Control Report

Edward Philley
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: February 17, 2006

Work Order: 6012505

Project Location: Eddy County,NM
Project Name: Duke-Artesia Flare Pit
Project Number: 043995

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
83009	E. Berm	soil	2006-01-23	12:50	2006-01-25
83010	S. Berm	soil	2006-01-23	12:57	2006-01-25
83011	W. Berm	soil	2006-01-23	13:05	2006-01-25
83012	N. Berm	soil	2006-01-23	13:13	2006-01-25
83013	N Bottom	soil	2006-01-23	13:25	2006-01-25
83014	S. Bottom	soil	2006-01-23	13:33	2006-01-25

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.

Blair Leftwich

Dr. Blair Leftwich, Director

Analytical Report

Sample: 83009 - E. Berm

Analysis:	RCI	Analytical Method:	S 1110	Prep Method:	N/A
QC Batch:	24682	Date Analyzed:	2006-02-17	Analyzed By:	SD
Prep Batch:	21688	Sample Preparation:	2006-02-16	Prepared By:	SD
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A

Parameter	Flag	Result	RL Units	Dilution	RL
Reactivity		**non-reactive**		1	0.00
Hydrogen Sulfide		<10.0	mg/Kg	1	10.0
Hydrogen Cyanide		<2.50	mg/Kg	1	2.50
Corrosivity		**non-corrosive**	mm/yr	1	0.00
pH	[1]	**7.00**	s.u.	1	0.00
Ignitability		**non-ignitable**		1	0.00

Sample: 83010 - S. Berm

Analysis:	RCI	Analytical Method:	S 1110	Prep Method:	N/A
QC Batch:	24682	Date Analyzed:	2006-02-17	Analyzed By:	SD
Prep Batch:	21688	Sample Preparation:	2006-02-16	Prepared By:	SD
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A

Parameter	Flag	Result	RL Units	Dilution	RL
Reactivity		**non-reactive**		1	0.00
Hydrogen Sulfide		<10.0	mg/Kg	1	10.0
Hydrogen Cyanide		<2.50	mg/Kg	1	2.50
Corrosivity		**non-corrosive**	mm/yr	1	0.00
pH	[2]	**7.00**	s.u.	1	0.00
Ignitability		**non-ignitable**		1	0.00

Sample: 83011 - W. Berm

Analysis:	RCI	Analytical Method:	S 1110	Prep Method:	N/A
QC Batch:	24682	Date Analyzed:	2006-02-17	Analyzed By:	SD
Prep Batch:	21688	Sample Preparation:	2006-02-16	Prepared By:	SD
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A

Parameter	Flag	Result	RL Units	Dilution	RL
Reactivity		**non-reactive**		1	0.00
Hydrogen Sulfide		<10.0	mg/Kg	1	10.0
Hydrogen Cyanide		<2.50	mg/Kg	1	2.50
Corrosivity		**non-corrosive**	mm/yr	1	0.00

continued . . .

[1]ph taken by ph paper due to sample conditions •
[2]ph taken by ph paper due to sample conditions •

sample 83011 continued...

Parameter	Flag	Result	RL	Units	Dilution	RL
pH	[3]	**7.00**		s.u.	1	0.00
Ignitability		**non-ignitable**			1	0.00

Sample: 83012 - N. Berm

Analysis:	RCI	Analytical Method:	S 1110	Prep Method:	N/A
QC Batch:	24682	Date Analyzed:	2006-02-17	Analyzed By:	SD
Prep Batch:	21688	Sample Preparation:	2006-02-16	Prepared By:	SD
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A

Parameter	Flag	Result	RL	Units	Dilution	RL
Reactivity		**non-reactive**			1	0.00
Hydrogen Sulfide		<10.0		mg/Kg	1	10.0
Hydrogen Cyanide		<2.50		mg/Kg	1	2.50
Corrosivity		**non-corrosive**		mm/yr	1	0.00
pH	[4]	**7.00**		s.u.	1	0.00
Ignitability		**non-ignitable**			1	0.00

Sample: 83013 - N Bottom

Analysis:	RCI	Analytical Method:	S 1110	Prep Method:	N/A
QC Batch:	24682	Date Analyzed:	2006-02-17	Analyzed By:	SD
Prep Batch:	21688	Sample Preparation:	2006-02-16	Prepared By:	SD
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A

Parameter	Flag	Result	RL	Units	Dilution	RL
Reactivity		**non-reactive**			1	0.00
Hydrogen Sulfide		<10.0		mg/Kg	1	10.0
Hydrogen Cyanide		<2.50		mg/Kg	1	2.50
Corrosivity		**non-corrosive**		mm/yr	1	0.00
pH	[5]	**7.00**		s.u.	1	0.00
Ignitability		**non-ignitable**			1	0.00

Sample: 83014 - S. Bottom

Analysis:	RCI	Analytical Method:	S 1110	Prep Method:	N/A
QC Batch:	24682	Date Analyzed:	2006-02-17	Analyzed By:	SD
Prep Batch:	21688	Sample Preparation:	2006-02-16	Prepared By:	SD
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A

[3]ph taken by ph paper due to sample conditions •
[4]ph taken by ph paper due to sample conditions •
[5]ph taken by ph paper due to sample conditions •

Parameter	Flag	RL Result	Units	Dilution	RL
Reactivity		**non-reactive**		1	0.00
Hydrogen Sulfide		<10.0	mg/Kg	1	10.0
Hydrogen Cyanide		<2.50	mg/Kg	1	2.50
Corrosivity		**non-corrosive**	mm/yr	1	0.00
pH	[6]	**7.00**	s.u.	1	0.00
Ignitability		**non-ignitable**		1	0.00

Duplicate (1) QC Batch: 24682

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Reactivity		non-reactive	non-reactive		1	0	
Hydrogen Sulfide		0.00	0.00	mg/Kg	1	0	20
Hydrogen Cyanide		0.00	0.00	mg/Kg	1	0	20
Corrosivity		non-corrosive	non-corrosive	mm/yr	1	0	0
pH	[7]	7.00	7.00	s.u.	1	0	0
Ignitability		non-ignitable	non-ignitable		1	0	20

[6]ph taken by ph paper due to sample conditions •
[7]ph taken by ph paper due to sample conditions •

6701 Aberdeen Avenue, Ste. 9
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1 (800) 378-1296
email: lab@traceanalysis.com

TraceAnalysis, Inc.

155 McCutcheon, Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #: 6012505

Company Name: CRA
Phone #: (432) 686-0080
Address: (Street, City, Zip)
Fax #:
e-mail: ePhilley@CRAworld.com
Contact Person: Edward (Ted) Phillay
Invoice to: (If different from above)
Project #: 043995
Project Name: Duke – Artesia Flare Pit
Project Location: Eddy county, NM
Sampler Signature:

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
83009	E. Berm	1	4oz		✓							✓		1/23	12:50
10	S. Berm	1	4oz		✓							✓		1/23	12:57
11	W. Berm	1	4oz		✓							✓		1/23	13:05
12	N. Berm	1	4oz		✓							✓		1/23	13:13
13	N. Bottom	1	4oz		✓							✓		1/23	13:25
14	S. Bottom	1	4oz		✓							✓		1/23	13:33

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	TX 1005 Extended (C35)	PAH 8270C	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				Turn Around Time if different from standard	Hold
	✓	✓			✓																
	✓	✓			✓																
	✓	✓			✓																
	✓	✓			✓																
	✓	✓			✓																
	✓	✓			/																

Relinquished by: Edward Phillay Date: 1-24-06 Time: 1445
Received by: Helen Shelton Date: 1/24/06 Time: 1445
Relinquished by: Helen Shelton Date: 1/24/06 Time: 1700
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Megan McCord Date: 1-25-06 Time: 0930

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

ORIGINAL COPY

LAB USE ONLY
Intact (Y / N)
Headspace Y (N)
Temp 4.8°
Log-in Review SP

REMARKS:

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

Carrier # Lone Star P1827749

Report Date: February 17, 2006
043995

Work Order: 6012505
Duke-Artesia Flare Pit

Page Number: 5 of 5
Eddy County, NM

Summary Report

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: September 7, 2006

Work Order: 6090504

Project Location: Eddy County, NM
Project Name: Duke Artesia Flair Pit
Project Number: 043995

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
101979	2' S. of N. Berm (Bottom)	soil	2006-09-01	12:08	2006-09-05
101980	10' S. of N. Berm (Bottom)	soil	2006-09-01	12:16	2006-09-05
101981	S. Wall	soil	2006-09-01	12:25	2006-09-05
101982	E. Wall	soil	2006-09-01	12:31	2006-09-05
101983	W. Wall	soil	2006-09-01	12:35	2006-09-05
101984	N. Wall	soil	2006-09-01	12:40	2006-09-05

	BTEX				MTBE	TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
101979 - 2' S. of N. Berm (Bottom)	<0.0100	**0.0268**	**0.0110**	**0.0499**		<50.0	<1.00
101980 - 10' S. of N. Berm (Bottom)	<0.0100	**0.0192**	<0.0100	**0.0263**		<50.0	<1.00
101981 - S. Wall	<0.0100	**0.0177**	<0.0100	**0.0235**		<50.0	<1.00
101982 - E. Wall	<0.0100	**0.0183**	<0.0100	**0.0245**		<50.0	<1.00
101983 - W. Wall	<0.0100	**0.0186**	<0.0100	**0.0220**		<50.0	<1.00
101984 - N. Wall	<0.0100	**0.0177**	<0.0100	**0.0214**		<50.0	<1.00

Analytical and Quality Control Report

Todd Wells
CRA-Midland
2135 South Loop 250 West
Midland, TX, 79703

Report Date: September 7, 2006

Work Order: 6090504

Project Location: Eddy County, NM
Project Name: Duke Artesia Flair Pit
Project Number: 043995

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
101979	2' S. of N. Berm (Bottom)	soil	2006-09-01	12:08	2006-09-05
101980	10' S. of N. Berm (Bottom)	soil	2006-09-01	12:16	2006-09-05
101981	S. Wall	soil	2006-09-01	12:25	2006-09-05
101982	E. Wall	soil	2006-09-01	12:31	2006-09-05
101983	W. Wall	soil	2006-09-01	12:35	2006-09-05
101984	N. Wall	soil	2006-09-01	12:40	2006-09-05

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.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 101979 - 2' S. of N. Berm (Bottom)

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	29719	Date Analyzed:	2006-09-06	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		**0.0268**	mg/Kg	1	0.0100
Ethylbenzene		**0.0110**	mg/Kg	1	0.0100
Xylene		**0.0499**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.792	mg/Kg	1	1.00	79	75 - 125
4-Bromofluorobenzene (4-BFB)		0.923	mg/Kg	1	1.00	92	75 - 125

Sample: 101979 - 2' S. of N. Berm (Bottom)

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	29717	Date Analyzed:	2006-09-05	Analyzed By:	AG
Prep Batch:	25911	Sample Preparation:	2006-09-05	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	[1]	220	mg/Kg	1	150	147	70 - 130

Sample: 101979 - 2' S. of N. Berm (Bottom)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	29722	Date Analyzed:	2006-09-05	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

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)		0.695	mg/Kg	1	1.00	70	70 - 130
4-Bromofluorobenzene (4-BFB)		1.27	mg/Kg	1	1.00	127	70 - 130

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

Sample: 101980 - 10' S. of N. Berm (Bottom)

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	29719	Date Analyzed:	2006-09-06	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		**0.0192**		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100
Xylene		**0.0263**		mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.828	mg/Kg	1	1.00	83	75 - 125
4-Bromofluorobenzene (4-BFB)		0.886	mg/Kg	1	1.00	89	75 - 125

Sample: 101980 - 10' S. of N. Berm (Bottom)

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	29717	Date Analyzed:	2006-09-05	Analyzed By:	AG
Prep Batch:	25911	Sample Preparation:	2006-09-05	Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[2]	234	mg/Kg	1	150	156	70 - 130

Sample: 101980 - 10' S. of N. Berm (Bottom)

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	29722	Date Analyzed:	2006-09-05	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	[3]	0.690	mg/Kg	1	1.00	69	70 - 130
4-Bromofluorobenzene (4-BFB)		1.22	mg/Kg	1	1.00	122	70 - 130

[2]High surrogate recovery. Sample non-detect, result bias high.
[3]Surrogate out due to peak interference.

Sample: 101981 - S. Wall

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	29719	Date Analyzed:	2006-09-06	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		**0.0177**	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		**0.0235**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.786	mg/Kg	1	1.00	79	75 - 125
4-Bromofluorobenzene (4-BFB)		0.883	mg/Kg	1	1.00	88	75 - 125

Sample: 101981 - S. Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	29717	Date Analyzed:	2006-09-05	Analyzed By:	AG
Prep Batch:	25911	Sample Preparation:	2006-09-05	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	[4]	236	mg/Kg	1	150	157	70 - 130

Sample: 101981 - S. Wall

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	29722	Date Analyzed:	2006-09-05	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

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)		0.665	mg/Kg	1	1.00	66	70 - 130
4-Bromofluorobenzene (4-BFB)		1.21	mg/Kg	1	1.00	121	70 - 130

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

Sample: 101982 - E. Wall

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	29719	Date Analyzed:	2006-09-06	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		**0.0183**	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		**0.0245**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.786	mg/Kg	1	1.00	79	75 - 125
4-Bromofluorobenzene (4-BFB)		0.883	mg/Kg	1	1.00	88	75 - 125

Sample: 101982 - E. Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	29717	Date Analyzed:	2006-09-05	Analyzed By:	AG
Prep Batch:	25911	Sample Preparation:	2006-09-05	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	[5]	227	mg/Kg	1	150	151	70 - 130

Sample: 101982 - E. Wall

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	29722	Date Analyzed:	2006-09-05	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

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)		0.773	mg/Kg	1	1.00	77	70 - 130
4-Bromofluorobenzene (4-BFB)		1.21	mg/Kg	1	1.00	121	70 - 130

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

Sample: 101983 - W. Wall

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	29719	Date Analyzed:	2006-09-06	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		<0.0100		mg/Kg	1	0.0100
Toluene		**0.0186**		mg/Kg	1	0.0100
Ethylbenzene		<0.0100		mg/Kg	1	0.0100
Xylene		**0.0220**		mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.782	mg/Kg	1	1.00	78	75 - 125
4-Bromofluorobenzene (4-BFB)		0.870	mg/Kg	1	1.00	87	75 - 125

Sample: 101983 - W. Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	29717	Date Analyzed:	2006-09-05	Analyzed By:	AG
Prep Batch:	25911	Sample Preparation:	2006-09-05	Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	[6]	231	mg/Kg	1	150	154	70 - 130

Sample: 101983 - W. Wall

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	29722	Date Analyzed:	2006-09-05	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.721	mg/Kg	1	1.00	72	70 - 130
4-Bromofluorobenzene (4-BFB)		1.20	mg/Kg	1	1.00	120	70 - 130

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

Sample: 101984 - N. Wall

Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	29719	Date Analyzed:	2006-09-06	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		**0.0177**	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		**0.0214**	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.782	mg/Kg	1	1.00	78	75 - 125
4-Bromofluorobenzene (4-BFB)		0.878	mg/Kg	1	1.00	88	75 - 125

Sample: 101984 - N. Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	29717	Date Analyzed:	2006-09-05	Analyzed By:	AG
Prep Batch:	25911	Sample Preparation:	2006-09-05	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	[7]	226	mg/Kg	1	150	151	70 - 130

Sample: 101984 - N. Wall

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	29722	Date Analyzed:	2006-09-05	Analyzed By:	LO
Prep Batch:	25912	Sample Preparation:	2006-09-05	Prepared By:	LO

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)		0.744	mg/Kg	1	1.00	74	70 - 130
4-Bromofluorobenzene (4-BFB)		1.21	mg/Kg	1	1.00	121	70 - 130

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

Method Blank (1) QC Batch: 29717

QC Batch: 29717 | Date Analyzed: 2006-09-05 | Analyzed By: AG
Prep Batch: 25911 | QC Preparation: 2006-09-05 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
DRO		43.0	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		142	mg/Kg	1	150	95	70 - 130

Method Blank (1) QC Batch: 29719

QC Batch: 29719 | Date Analyzed: 2006-09-06 | Analyzed By: LO
Prep Batch: 25912 | QC Preparation: 2006-09-05 | Prepared By: LO

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00270	mg/Kg	0.01
Toluene		<0.00320	mg/Kg	0.01
Ethylbenzene		<0.00340	mg/Kg	0.01
Xylene		0.0190	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.806	mg/Kg	1	1.00	81	75 - 125
4-Bromofluorobenzene (4-BFB)		0.811	mg/Kg	1	1.00	81	75 - 125

Method Blank (1) QC Batch: 29722

QC Batch: 29722 | Date Analyzed: 2006-09-05 | Analyzed By: LO
Prep Batch: 25912 | QC Preparation: 2006-09-05 | Prepared By: LO

Parameter	Flag	MDL Result	Units	RL
GRO		2.76	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.968	mg/Kg	1	1.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)		1.11	mg/Kg	1	1.00	111	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 29717 | Date Analyzed: 2006-09-05 | Analyzed By: AG
Prep Batch: 25911 | QC Preparation: 2006-09-05 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	242	mg/Kg	1	250	<15.4	97	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
DRO	227	mg/Kg	1	250	<15.4	97	70 - 130	6	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	121	118	mg/Kg	1	150	81	79	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 29719 | Date Analyzed: 2006-09-06 | Analyzed By: LO
Prep Batch: 25912 | QC Preparation: 2006-09-05 | Prepared By: LO

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.974	mg/Kg	1	1.00	<0.00270	97	70 - 130
Toluene	0.926	mg/Kg	1	1.00	<0.00320	93	70 - 130
Ethylbenzene	0.910	mg/Kg	1	1.00	<0.00340	91	70 - 130
Xylene	2.73	mg/Kg	1	3.00	<0.0104	91	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
Benzene	0.965	mg/Kg	1	1.00	<0.00270	97	70 - 130	1	20
Toluene	0.917	mg/Kg	1	1.00	<0.00320	93	70 - 130	1	20
Ethylbenzene	0.902	mg/Kg	1	1.00	<0.00340	91	70 - 130	1	20
Xylene	2.71	mg/Kg	1	3.00	<0.0104	91	70 - 130	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)	0.810	0.809	mg/Kg	1	1.00	81	81	70 - 130
4-Bromofluorobenzene (4-BFB)	0.882	0.879	mg/Kg	1	1.00	88	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 29722 | Date Analyzed: 2006-09-05 | Analyzed By: LO
Prep Batch: 25912 | QC Preparation: 2006-09-05 | Prepared By: LO

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	8.28	mg/Kg	1	10.0	<0.829	83	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
GRO	7.82	mg/Kg	1	10.0	<0.829	83	70 - 130	6	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)	1.18	1.13	mg/Kg	1	1.00	118	113	70 - 130
4-Bromofluorobenzene (4-BFB)	1.20	1.20	mg/Kg	1	1.00	120	120	70 - 130

Matrix Spike (MS-1) Spiked Sample: 101981

QC Batch: 29717 | Date Analyzed: 2006-09-05 | Analyzed By: AG
Prep Batch: 25911 | QC Preparation: 2006-09-05 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO [8]	939	mg/Kg	1	250	<15.4	376	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
DRO [9]	531	mg/Kg	1	250	<15.4	212	70 - 130	56	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 [10 11]	282	206	mg/Kg	1	150	188	137	70 - 130

Matrix Spike (MS-1) Spiked Sample: 101979

QC Batch: 29719 | Date Analyzed: 2006-09-06 | Analyzed By: LO
Prep Batch: 25912 | QC Preparation: 2006-09-05 | Prepared By: LO

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.848	mg/Kg	1	1.00	<0.00270	85	70 - 130
Toluene	0.819	mg/Kg	1	1.00	0.0268	79	70 - 130
Ethylbenzene	0.794	mg/Kg	1	1.00	0.011	78	70 - 130
Xylene	2.39	mg/Kg	1	3.00	0.0499	78	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
Benzene	0.769	mg/Kg	1	1.00	<0.00270	77	70 - 130	10	20
Toluene	0.784	mg/Kg	1	1.00	0.0268	76	70 - 130	4	20

continued ...

[8] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[9] Matrix spike recovery out of control limits due to matrix interference. Use LCS/LCSD to demonstrate analysis is under control.
[10] High surrogate recovery due to peak interference.
[11] High surrogate recovery due to peak interference.

matrix spikes continued ...

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene	0.776	mg/Kg	1	1.00	0.011	76	70 - 130	2	20
Xylene	2.34	mg/Kg	1	3.00	0.0499	76	70 - 130	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)	0.948	0.800	mg/Kg	1	1	95	80	70 - 130
4-Bromofluorobenzene (4-BFB)	0.905	0.893	mg/Kg	1	1	90	89	70 - 130

Matrix Spike (MS-1) Spiked Sample: 101979

QC Batch: 29722 | Date Analyzed: 2006-09-05 | Analyzed By: LO
Prep Batch: 25912 | QC Preparation: 2006-09-05 | Prepared By: LO

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO [12]	6.76	mg/Kg	1	10.0	<0.829	63	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
GRO [13]	6.97	mg/Kg	1	10.0	<0.829	65	70 - 130	3	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) [14 15]	0.646	0.661	mg/Kg	1	1	65	66	70 - 130
4-Bromofluorobenzene (4-BFB)	1.24	1.26	mg/Kg	1	1	124	126	70 - 130

Standard (ICV-1)

QC Batch: 29717 | Date Analyzed: 2006-09-05 | Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	259	104	85 - 115	2006-09-05

Standard (CCV-1)

QC Batch: 29717 | Date Analyzed: 2006-09-05 | Analyzed By: AG

[12] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[13] Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[14] Surrogate out due to peak interference.
[15] Surrogate out due to peak interference.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	218	87	85 - 115	2006-09-05

Standard (ICV-1)

QC Batch: 29719 Date Analyzed: 2006-09-06 Analyzed By: LO

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0943	94	85 - 115	2006-09-06
Toluene		mg/Kg	0.100	0.0914	91	85 - 115	2006-09-06
Ethylbenzene		mg/Kg	0.100	0.0899	90	85 - 115	2006-09-06
Xylene		mg/Kg	0.300	0.271	90	85 - 115	2006-09-06

Standard (CCV-1)

QC Batch: 29719 Date Analyzed: 2006-09-06 Analyzed By: LO

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0963	96	85 - 115	2006-09-06
Toluene		mg/Kg	0.100	0.0905	90	85 - 115	2006-09-06
Ethylbenzene		mg/Kg	0.100	0.0847	85	85 - 115	2006-09-06
Xylene		mg/Kg	0.300	0.260	87	85 - 115	2006-09-06

Standard (ICV-1)

QC Batch: 29722 Date Analyzed: 2006-09-05 Analyzed By: LO

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2006-09-05

Standard (CCV-1)

QC Batch: 29722 Date Analyzed: 2006-09-05 Analyzed By: LO

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	85 - 115	2006-09-05

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296
email: lab@traceanalysis.com

TraceAnalysis, Inc.

155 McCutcheon,Suite H
El Paso, Texas 79932
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6090504

Company Name: CRA
Phone #: 686-0086
Address: (Street, City, Zip) 2135 S Loop 250 West
Fax #: 686-0186
e-mail:
Contact Person: Todd Wells
Invoice to: (If different from above)
Project #: 043995
Project Name: Duke Artesia Flair Pit
Project Location: Eddy County, NM
Sampler Signature: Todd Wells

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
0199	2' S. of N. Berm (Bottom)	1	4oz		X							X		9/1/06	12:08
80	10' S. of N. Berm (Bottom)	"	"		"							"		"	12:16
81	S. Wall	"	"		"							"		"	12:25
82	E. Wall	"	"		"							"		"	12:31
83	W. Wall	"	"		"							"		"	12:35
84	N. Wall	"	"		"							"		"	12:40

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	TX 1005 Extended (C35)	PAH 8270C	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			Turn Around Time if different from standard	Hold
	X	X																	X	
	X	X																	X	
	X	X																	X	
	X	X																	X	
	X	X																	X	
	X	X																	X	

Relinquished by: Todd Wells Date: 9/5/06 Time: 8:35
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:
A2on 9.5.06 0835

LAB USE ONLY
Intact (Y) N
Headspace Y / (N)
Temp 4 °
Log-in Review

REMARKS: As soon as possible

- ☐ 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.

ORIGINAL COPY

Report Date: September 7, 2006
043995

Work Order: 6090504
Duke Artesia Flair Pit

Page Number: 13 of 13
Eddy County, NM

APPENDIX B

ARTESIA AERATION LLC PERMIT

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

November 29, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-642

Mr. Rob Mathews
Artesia Aeration L.L.C.
P.O. Box 248
Artesia, NM 88210

RE: OCD Rule 711 Permit Approval NM-01-0030
Artesia Aeration L.L.C.
Commercial Landfarm
N/2 of Section 7, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico

Dear Mr. Mathews:

The permit application for the Artesia Aeration L.L.C. (Artesia Aeration) commercial surface waste management facility located in the N/2 N/2 of Section 9 and the N/2 N/2 of Section 10, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico, **is hereby approved** in accordance with New Mexico Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. **This permit approval is conditional upon the receipt and approval by the Director of financial assurance in the amount of $93,420.** According to the schedule outlined in the financial assurance section of the enclosed attachment, **$25,000** is required within thirty (30) days of the date of this permit approval letter. The application consists of the permit application Form C-137 dated June 29, 1999, the public notice dated October 11, 1999, and supplemental materials dated July 15, 1999.

The operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved landfarming methods must receive prior OCD approval. Artesia Aeration is required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised approval of this facility permit does not relieve Artesia Aeration of liability should your operation result in pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Artesia Aeration of responsibility for compliance with other federal, state or local laws and/or regulations.

APPENDIX C

FORM C-138 REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE
CERTIFICATE OF WASTE STATUS
NON-HAZARDOUS WASTE MANIFESTS

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised June 10, 2003

Submit Original Plus 1 Copy to Appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ ☐ Verbal Approval Received: Yes ☐ No ☐	4. Generator: Duke Energy
2. Management Facility Destination: Artesia Aeration	5. Originating Site: Duke-Artesia Skim Pit
3. Address of Facility Operator: P.O. Box 810 Hobbs, NM 88241	6. Transporter
7. Location of Material (Street Address or ULSTR): Malaimar, NM	8. State: NM

9. Check One

A. All requests for approval to accept offsite exempt wastes will be accompanied by a certification of waste from the Generator, one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is non-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the waste delivered was only those consigned for transport.

10. TYPE DESCRIPTION OF MATERIAL:

Contaminated soil

Estimated Volume 500 cy Known Volume (to be entered by the operator at the end of the haul) 30 yds

SIGNATURE: [signature] Waste Management Facility Authorized Agent TITLE: manager DATE: 4/28/06

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 392-9577

E-MAIL ADDRESS:

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Ed Martin TITLE: Environ. Engr. DATE: 5-2-06

Billing

ARTESIA GAS PLANT
Billing
P. O. Box 1170
ARTESIA, N.M. 88211

$249 on Acct.

JIM

06/01/2006 MON 18:31 [TX/RX NO 6298] 002

Freddy Robinson
Houston

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Duke Energy Field Services 1925 Illinois Camp Road Artesia, NM 88210	2. Destination Name: Artesia Aeration L.L.C. Commercial Landfarm
3. Originating Site (name): Artesia Gas Plant	Location of Waste (Street address &/or ULSTR): Permit NM-01-0030 P.O. Box 310 Maljamar, NM Hobbs, NM
4. Source and Description of Waste: Flair pit soil	N/2 of Section 7, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico

* Lewis R. Dade do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

_✓_ NON-EXEMPT oilfield waste which is non – hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate box)

___ MSDS Information
_✓_ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description)

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Lewis R. Dade

Title: Lead Mechanic

Date: Sept 13 - 2006

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Doc. No. | 2. Page 1 of

3. Generator's Name and Mailing Address: Duke Plant (Artesia Gas Plant @ CR 206

4. Generator's Phone (505) 677-5201 F249

No. 6901

5. Transporter 1 Company Name: Jim Wilson Con. | 6. US EPA ID Number | A. Transporter's Phone: 392-9575

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: **ARTESIA AERATION, L.L.C. MALJAMAR, NM** | 10. US EPA ID Number | C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a.			10 yds	
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above | E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Cathy Romero DUKE Energy Field Services | Signature: Cathy Romero Lewis Wade | Month 09 Day 13 Year 06

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Cathy Romero | Signature: Cathy Romero | Month 09 Day 13 Year 06

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of wasted material covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jim Wilson | Signature: Jim Wilson | Month Day Year

GENERATOR

TRANSPORTER

FACILITY

WHITE - ORIGINAL

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Doc. No. | 2. Page 1 of

3. Generator's Name and Mailing Address: Duke Plant (Artesia Gas Plant @ CR206

4. Generator's Phone (505) 677-5201 F249

No. 6902

5. Transporter 1 Company Name: Jim Wilson Const. | 6. US EPA ID Number | A. Transporter's Phone: 342-9575

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: **ARTESIA AERATION, L.L.C. MALJAMAR, NM** | 10. US EPA ID Number | C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a.			10 yds.	
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
DUKE Energy Field Services	Dennis R Dade	9	15	06

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Samuel L. McElroy	Samuel McElroy	9	15	06

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of wasted material covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jim Wilson	Jim Wilson			

GENERATOR — TRANSPORTER — FACILITY

WHITE - ORIGINAL

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Doc. No. | 2. Page 1 of

3. Generator's Name and Mailing Address: Duke Plant CARTESIA Gas Plant @ CR 206 F249

No. 6903

4. Generator's Phone (505) 677-5201

5. Transporter 1 Company Name: Jim Wilson Con. | 6. US EPA ID Number | A. Transporter's Phone: 392-9575

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: **ARTESIA AERATION, L.L.C. MALJAMAR, NM** | 10. US EPA ID Number | C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a.			10 yds	
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: ~~NICK DE LA CRUZ~~ DUKE Energy Field Services ART. Plant | Signature: Nick de la Cruz | Month: 9 | Day: 13 | Year: 06

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: NICK DE LA CRUZ | Signature: Nick de la Cruz | Month: 9 | Day: 13 | Year: 06

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of wasted material covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jim Wilson | Signature | Month | Day | Year

GENERATOR

TRANSPORTER

FACILITY

WHITE - ORIGINAL