

GW-156

**Removal of Wash
Bay Effluent
Holding Tank
Date:
5/2011**



Souder, Miller & Associates • 2101 San Juan Boulevard • Farmington, NM 87401-2247
(505) 325-7535 • fax (505) 326-0045

**Key Energy Services
U.S. Highway 64 Truck Yard**

**Removal of Wash Bay Effluent Holding Tank
Remediation of Discovered Hydrocarbon Impacted Area
Decommissioning and Closure of Four Wash Bay Sumps**

Latitude North 36 42.256, Longitude West 108 06.872
NE1/4, NE1/4 Sec. 29-T29N-R12W
San Juan County, New Mexico
Regulatory Jurisdiction: NMOCD



Prepared for: Key Energy Services
6 Desta Drive, Suite 4300
Midland, TX 79705

Prepared by: Souder, Miller & Associates
2101 San Juan Boulevard
Farmington, NM 87401

District Copy
For Scanning Only
Has NOT been processed.

SMA Ref # 5121216

INTRODUCTION

On behalf of Key Energy Services, Inc. Souder, Miller & Associates (SMA) has prepared this report describing activities that were completed to remediate a discovered hydrocarbon release associated with a partially buried wash bay effluent storage tank from the wash bays located within the facility. The release was discovered during a Phase II sampling investigation of soils surrounding the wash bay tank on or about May 18, 2011. The investigation by Basin Engineering was conducted to address environmental concerns noted in a Phase I Environmental Site Assessment by others. Figure 1, Vicinity Map, illustrates the location of the site at 5651 U.S. Highway 64, Farmington, NM. The site is located in Unit A (NE $\frac{1}{4}$, NE $\frac{1}{4}$) Section 29 Township 29 North, Range 12W, San Juan County, New Mexico.

On June 20, 2011, SMA was requested to evaluate the tank and related area of the yard and prepare a preliminary scope to mitigate the soils impacts discovered during the Phase II sampling. Those impacts ranged from 254 mg/kg Total Petroleum Hydrocarbons, Diesel Range (TPH-DRO) at 2 feet below surface grade (bsg) and 9.55 mg/kg at 6 feet bsg in the north test pit (TP2) to 8,860 mg/kg at 2.5 feet bsg and 476 mg/kg at 6.5 feet bsg in the south test pit (TP1).

SMA personnel viewed the location and, after corresponding with both Key personnel and New Mexico Oil Conservation Division (NMOCD), arranged for Southwest Field Services (SWFS) to initiate a One-Call utility notification in preparation for excavation and removal of the wash tank and impacted soils planned to begin June 28, 2011. A composite soil sample was constructed using aliquots from TP1 and TP2 as well as the adjacent soil stockpiles and submitted to Hall Environmental Analytical Laboratory (HEAL) of Albuquerque, NM for analysis for the RCRA 8 Toxic Metals to allow waste characterization and profiling as a Non-Exempt, Non-Hazardous Waste. As such, the excavated impacted soils could be accepted at the Industrial Ecosystems Inc. (IEI) Land Farm for bio-pile treatment and disposal.

After evaluation of the site using aerial photography, topographic maps and familiarity with the area, depth to groundwater can be assumed to be less than 100 feet bsg. The location and operation of the site are under the jurisdiction of the NMOCD. NMOCD Guidelines for Remediation of Leaks, Spills, and Releases establish action levels for constituents of concern where the depth to groundwater is less than 100 feet bsg: 10 parts per million (ppm) Benzene, 50 ppm total BTEX (Benzene, Toluene, Ethyl-Benzene, and Xylenes) and 100 ppm Total Petroleum Hydrocarbons (TPH). Under NMOCD jurisdiction, remediation of releases is frequently performed through excavation of impacted soils to the extent of the release where levels of impact are less than the action levels or to where further excavation is infeasible due to safety concerns, the presence of competent bedrock, or stability threats to existing structures.

FIELD ACTIVITIES

Previous to SWFS and SMA beginning excavation on June 28, 2011, Key personnel had removed the remaining liquids from the wash bay holding tank and transported for disposal. One-Call notification was given and the absence of underground utilities confirmed. The Site Health and Safety Plan was discussed and acknowledged by SWFS, SMA, and Key yard personnel. The tank atmosphere was tested for explosive vapors and oxygen levels using the Key LEL/O₂ meter and found to be within safe limits. Surface equipment surrounding the tank was removed for later destruction and metals recycling, and excavation commenced at the previously excavated TP2 north of the tank. Excavation was limited to the north and west areas around the tank until a Super Sucker vacuum truck and crew could be available from IEI to complete sludge removal and rinsing of the tank. Cutting up the double-walled 12 foot by 12

foot steel tank was planned to take place on the site to facilitate hauling for scrap metal recycling. The IEI truck and crew arrived the afternoon of June 28, rechecked the tank atmosphere and removed the remaining sludge from the tank, transporting it to the IEI Land Farm.

On June 29, 2011, after the daily tailgate safety meeting with SWFS and SMA personnel, under the supervision of SMA, SWFS continued excavating on the north and west sides of the tank. A bench was excavated on the northwest side of the tank to a depth of approximately four feet below surface grade (bsg). SMA personnel collected soil samples for field screening for total petroleum hydrocarbons (TPH) with a Petroflag® sampling kit. A total of five samples were collected from the excavation of the northwest side of the tank for field screening, three from the bottom and one each from the east and west side walls. All five were combined in a composite for field screening of the 18 foot by 16 foot area. Based on the field screening result of over 243 ppm TPH, additional excavation was planned for the next day. A summary of field screening results is included in Table 1, Summary of Petroflag® Field Screening Results. Soil sample locations are illustrated on Figure 2, Key Energy Yard, Excavation Diagram, dated 6/30/11-7/1/11. Photographs of the excavation activities are included in Appendix A.

Excavation continued on June 30, 2011, on the south and east sides of tank. After sufficient soil was removed from the around the tank, SWFS removed the tank from the excavation and set it aside pending cutting up. SMA personnel collected one five point composite soil sample from beneath the tank at approximately seven feet bsg for Petroflag® field screening. Another five point composite sample was constructed from the north bench at a depth of 6 feet. A third composite was constructed from three aliquots from the east wall of the excavation. At this point the entire excavation was approximately 37 feet wide and 80 feet long with an average depth of seven feet bsg where sandstone bed rock was encountered. The extent of the excavation and soil sample locations are illustrated on Figure 2, Key Energy Yard, Excavation Diagram dated 6/30/11-7/1/11. A summary of field screening results is included in Table 1, Summary of Petroflag® Field Screening Results.

After field screening results indicated that levels were below regulatory standards for TPH, the three composite soil samples were packaged for laboratory analytical confirmation of closure levels. Each sample was placed in a four-ounce glass jar with a Teflon lid gasket, labeled with date and time, sealed with chain of custody evidence tape, and placed on ice for shipment to HEAL for laboratory analysis. The soil samples were analyzed by USEPA SW846 Method 8015 for Diesel Range Organics (DRO)/Gasoline Range Organics (GRO). The initial three composite samples were not analyzed by Method 8021 for BTEX as the area had previously been cleared for those constituents in the initial investigation by Basin Engineering. A summary of the laboratory analyses is included in Table 2, Summary of Laboratory Analyses and the laboratory reports are included in Appendix B. Concurrent with excavation activities, SFWS loaded 262 cubic yards of contaminated soil onto 24 cubic yard tandem super dump trucks for proper disposal at the IEI Land Farm located in Crouch Mesa, New Mexico. SWFS returned with 262 cubic yards of clean backfill material and stock piled the clean soil on the east side of the excavation.

On July 1, 2011, based on the field screening results clearing the northeast and east areas, the excavation was expanded approximately 12 feet to the west and approximately 22 feet to the south. Photographs of the excavation activities are included in Appendix A. On the south and west walls of the excavation, significant staining was consistently observed from approximately 2.5 feet bsg to approximately 8 feet bsg. Sandstone bedrock was encountered at an average depth of 8 feet, limiting the vertical extent of excavation. SMA personnel collected soil samples

July 25, 2011

for field screening for TPH by Petroflag® to guide the direction and depth of excavation. Figure 3, Key Energy Yard, Excavation Diagram, dated 7/1/11-7/5/11 illustrates the locations where soil samples for field screening were collected. As all field screening results to the south and west continued to be over closure levels, no soil samples were collected for laboratory analysis. SWFS also loaded and transported 252 cubic yards of contaminated soil to IEI for proper disposal and returned with 252 cubic yards of clean backfill material. Disposal documents are included in Appendix C.

Under the direction of SMA personnel, on July 5, 2011, SWFS continued excavating observable impacted soil from the south and southwest sides of the main excavation. Contaminated soil was removed to a depth of approximately eight feet bsg where sandstone bedrock was present. SMA's project manager determined that excavating on the southwest side of the main excavation was to be terminated due to potential safety risks associated with excavating near the edge of the cliff. To document materials not removed in that location, SMA personnel collected soil samples for field screening for total TPH with a Petroflag® as well as samples for laboratory analysis. Figure 3, Key Energy Yard, Excavation Diagram, dated 7/1/11-7/5/11 illustrates the locations where the soil samples were collected.

Then three composite soil samples were collected from the main excavation, one from the southeast wall, one from the southwest wall where excavation activities were terminated due to safety concerns and one from the excavation bottom on the southwest side. A summary of the laboratory analyses is included in Table 2, Summary of Laboratory Analyses and the laboratory reports are included in Appendix B. SWFS also loaded and transported 340 cubic yards of contaminated soil to IEI for proper disposal and returned with 330 cubic yards of clean backfill material.

From July 6, 2011 to July 8, 2011, under the supervision of SMA, SWFS expanded the excavation to the west. Hydrocarbon contaminated soil continued to be stockpiled on site for loading and transporting to IEI for proper disposal. The excavation expanded on the north side to approximately 82 feet, and to approximately 94 feet on the south side. During excavation activities various types of solid waste (oil filters, trash, tires), leach lines possibly associated with the wash tank, and a buried fiber glass sump tank and leach lines apparently associated with the sump tank. SMA periodically collected composite soil samples for field screen for TPH. Figure 4, Key Energy Yard, Excavation Diagram, dated 7/6/11, illustrates the final dimensions of the excavation and where the final composite soil samples were collected for field screening. SMA personnel also collected three closure soil samples for laboratory analysis. Two samples were collected from the west wall and one from the bottom of the excavation on the west side. After mixing the aliquots for each composite soil sample, the soil was placed in a four-ounce glass jar with a Teflon gasket in the cap, labeled with date and time, sealed with chain of custody evidence tape, and placed on ice for shipment to HEAL for laboratory analysis and closure confirmation. The soil samples were analyzed by EPA SW846 Method 8021 for BTEX and Method 8015 for Diesel Range Organics (DRO)/Gasoline Range Organics (GRO). SWFS also loaded and transported 1,214 cubic yards of contaminated soil to IEI for proper disposal and returned with 360 cubic yards of clean backfill material.

Figure 5, Key Energy Yard, Excavation Diagram, dated 7/8/11, illustrates the final dimensions of the excavation and where all composite closure soil samples were collected for laboratory analysis and closure confirmation. July 11, 2011 to July 14, 2011, under the supervision of SMA, SWFS loaded and transported 222 cubic yards of contaminated soil to IEI for proper disposal and returned with clean backfill material. As the impacted soil was being loaded and disposed, SWFS also began to backfill the excavation. Prior to placing backfill on top to the

relict flow line associated with the wash bays, SWFS sealed it by square cutting the end and gluing on a PVC end cap.

In total, approximately 2,858 cubic yards of impacted soils were transported to the Industrial Ecosystems Land Farm on Crouch Mesa, near Farmington, New Mexico for bio-pile treatment and disposal.

To backfill the excavation and prevent creation of a soft area subject to subsidence, for each lift, SWFS placed a 1.5 foot lift composed of imported clean fine grained material and then compacted the lift using the back hoe and track hoe. The lift was dampened with water and road base materials composed of larger rocks and gravel was placed onto the lift and then compacted again. This method was continued lift by lift until the entire excavation was backfilled to a depth of approximately six inches bsg. SWFS then placed and compacted a final finish grade lift of one-inch minus road base across the excavation. Photographs of the backfilling and compacting activities are included in Appendix A.

At the direction of Key Energy personnel, in order to decommission and permanently close the wash bay sumps in the building, SMA took two samples of the fluids and sludge remaining in two of the four wash bay sumps in the building. The samples were sent to HEAL for analysis for waste characterization to allow transport and disposal. Subsequently, July 15 through July 16, 2011, under the supervision of SMA, SWFS and IEI cleaned the sumps in the wash bays. The soil, fluids and sludge were removed from each 5' X 8' x 5' to 6' sump by a vacuum truck. After all materials were removed from the sumps, they were steam cleaned to remove any residual hydrocarbon materials. All soil, fluids and sludge removed from the sumps were transported to the IEI facility for proper disposal.

Over the next two days, SWFS backfilled and compacted each sump in each wash bay with one-inch minus road base. Each sump was backfilled to a depth of approximately eight inches below the surface of the surrounding slab. The last eight inches was filled with concrete, packed and the surface smoothed to match the existing concrete slabs. Photographs of the backfilling and compacting activities are included in Appendix A. Disposal documents are included in Appendix C.

CONCLUSIONS AND RECOMMENDATIONS

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases establish action levels for contaminants of concern where the depth to groundwater is less than 100 feet bsg: 10 ppm Benzene, 50 ppm total BTEX, and 100 ppm TPH. Based on laboratory analysis, all of the soil samples collected are below the required NMOCD action levels with the exception of three samples: the two samples collected from the southwest wall of the excavation and one collected from the bottom within the southwest part of the excavation. Excavation was terminated in the area represented by these three samples due to safety risks associated with excavating near the edge of the cliff and to the sandstone bedrock that was encountered at approximately 7.5 to 8 feet bsg. NMOCD allows excavation of impacted soils to be limited by significant safety concerns, the presence of competent bedrock, or stability threats to existing structures. The limitation of the excavation posed by the cliff and by the presence of sandstone bedrock were discussed with and approved by the local NMOCD representative.

The three sumps in three wash bays and the one sump in the shop were cleaned. All soil, fluids and sludge was removed by a vacuum truck and transported to IEI land farm for proper disposal. Each sump was steam cleaned to remove any residual hydrocarbons. Finally, each

sump was abandoned by backfilling and compacting one inch road base until to a depth of approximately eight inches bgs. The last eight inches was backfilled with concrete, packed and the surface smoothed to match the existing concrete surface.

SMA considers no further action to be appropriate to address the discovered hydrocarbon release in the yard nor the decommissioning and abandonment of the wash bay sumps in the building. SMA recommends that the discovered release area be considered closed through the removal and disposal of impacted soils as documented by closure samples taken and analyzed in the laboratory. Further, a copy of this report should be sent to the New Mexico Oil Conservation Division Aztec Field Office for their records.

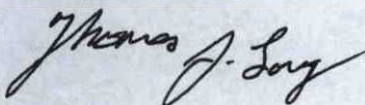
CLOSURE AND LIMITATIONS

The scope of SMA's services consisted of the performance of a preliminary spill assessment and stabilization, work plan preparation, regulatory liaison, oversight and control of clean-up operations, disposal arrangements and documentation, project and subcontractor management, and preparation of this summary report. All work has been performed in accordance with generally accepted professional hazardous materials management practices.

If there are any questions regarding this report, please contact either Thomas Long or Cynthia Gray at 505-325-7535.

Respectfully submitted,

Thomas J. Long
Project Scientist



Reviewed by,

Cynthia A. Gray, CHMM
Senior Scientist



Figures:

- Figure 1, Vicinity Map
- Figure 2, Site Diagram dated 6/30/11-7/1/11
- Figure 3, Site Diagram dated 7/1/11-7/5/11
- Figure 4, Site Diagram dated 7/8/11

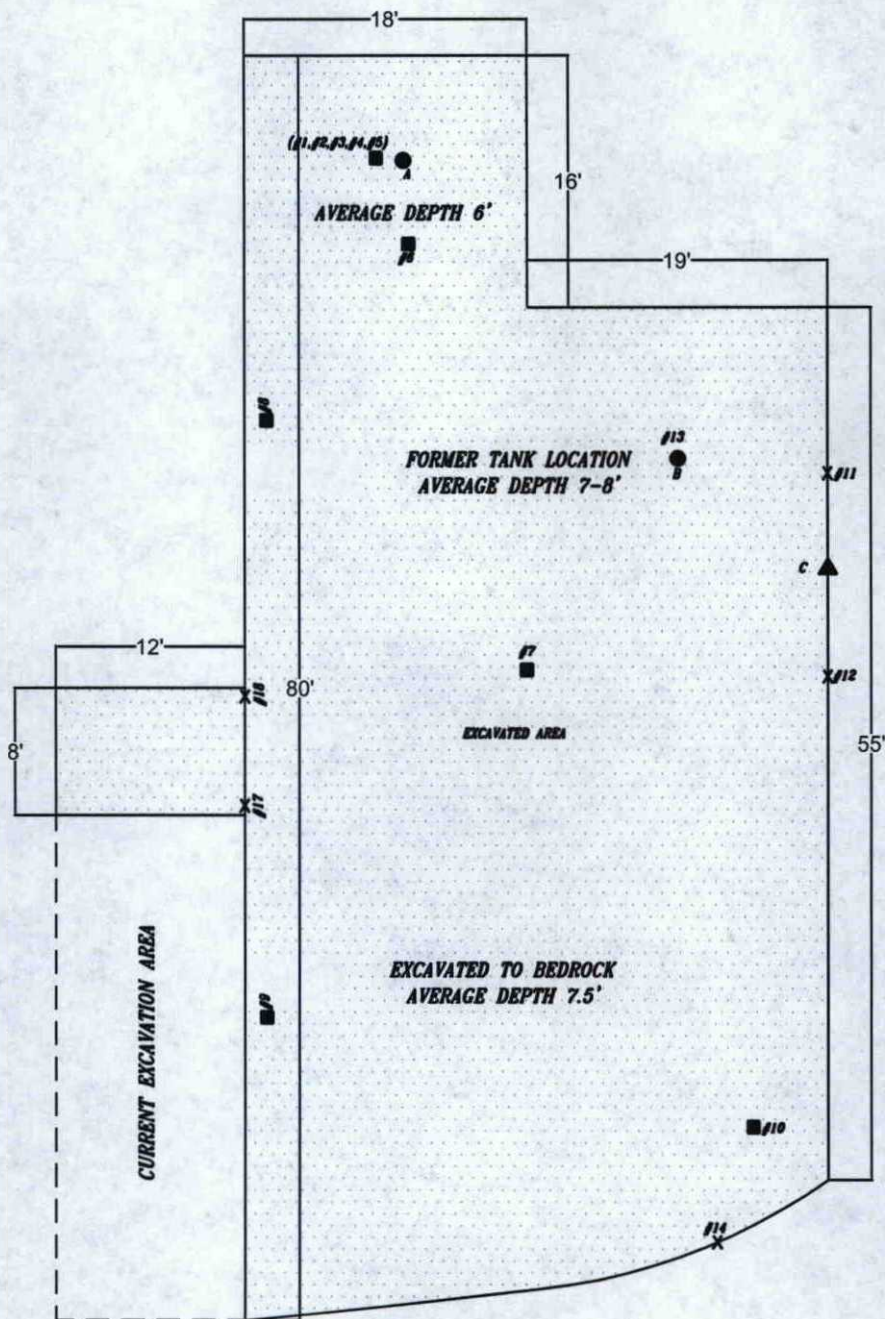
Tables:

- Table 1, Summary of Petroflag Field Screening Results
- Table 2, Summary of Laboratory Analyses

Appendices:

- Appendix A, Site Photography
- Appendix B, Laboratory Reports
- Appendix C, Soil Disposal Documentation

1192.168.1.10PROJECTS\6-KEY ENERGY HWY 64 YARD TANK CLEAN-UP 5121216\CAD\5121216\HWY64\EXCAVATION-CD2009.DWG



- - PETROFLAG BOTTOM COMPOSITE SAMPLE LOCATION
- x - PETROFLAG WALL COMPOSITE SAMPLE LOCATION
- - LABORATORY BOTTOM COMPOSITE SAMPLE LOCATION
- ▲ - LABORATORY WALL COMPOSITE SAMPLE LOCATION

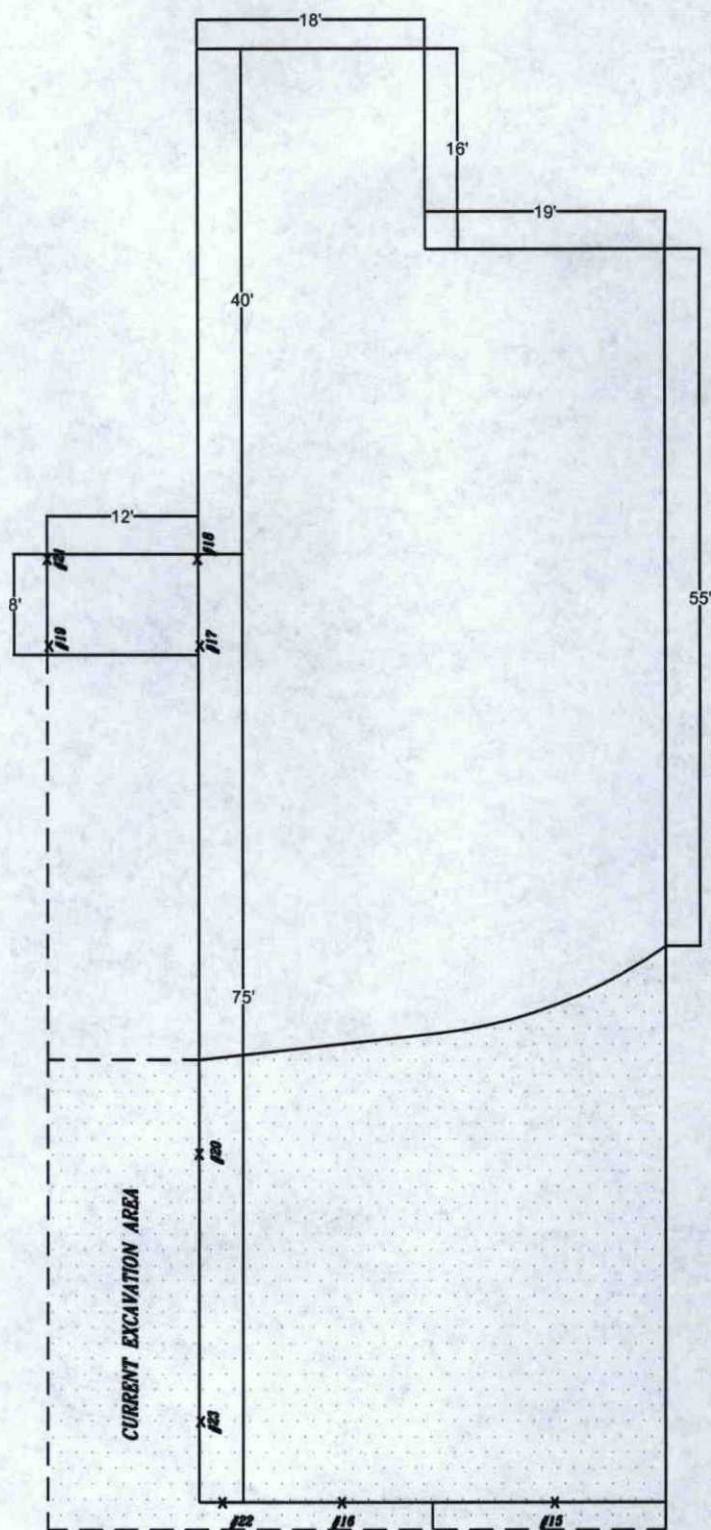


SOUDER, MILLER & ASSOCIATES, 2101 SAN JUAN BLVD,
FARMINGTON, NEW MEXICO 87401 TELE: 505-325-7535
Albuquerque - Las Cruces - Santa Fe, NM
Grand Junction - Cortez, CO MoAB, UT

KEY ENERGY SERVICES U.S. HIGHWAY 64 YARD
6/30/2011 TO 7/1/2011 SAN JUAN COUNTY, NM

FIGURE 2

11192.188.1.10PROJECTS\KEY ENERGY HWY 64 YARD TANK CLEAN-UP 5121216\CAD\5121216\HWY64EXCAVATION-CD2009.DWG



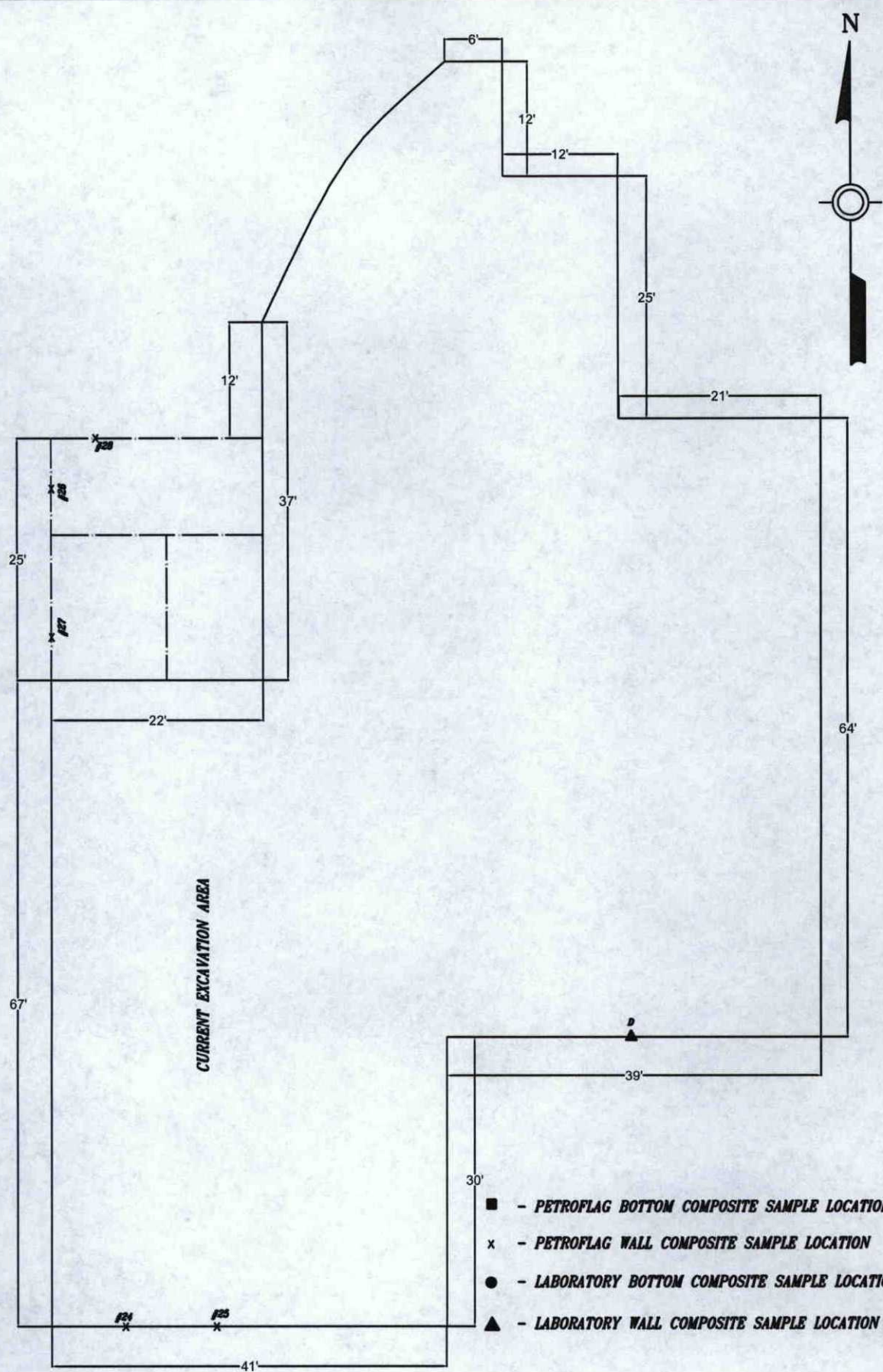
- - PETROFLAG BOTTOM COMPOSITE SAMPLE LOCATION
- x - PETROFLAG WALL COMPOSITE SAMPLE LOCATION
- - LABORATORY BOTTOM COMPOSITE SAMPLE LOCATION
- ▲ - LABORATORY WALL COMPOSITE SAMPLE LOCATION



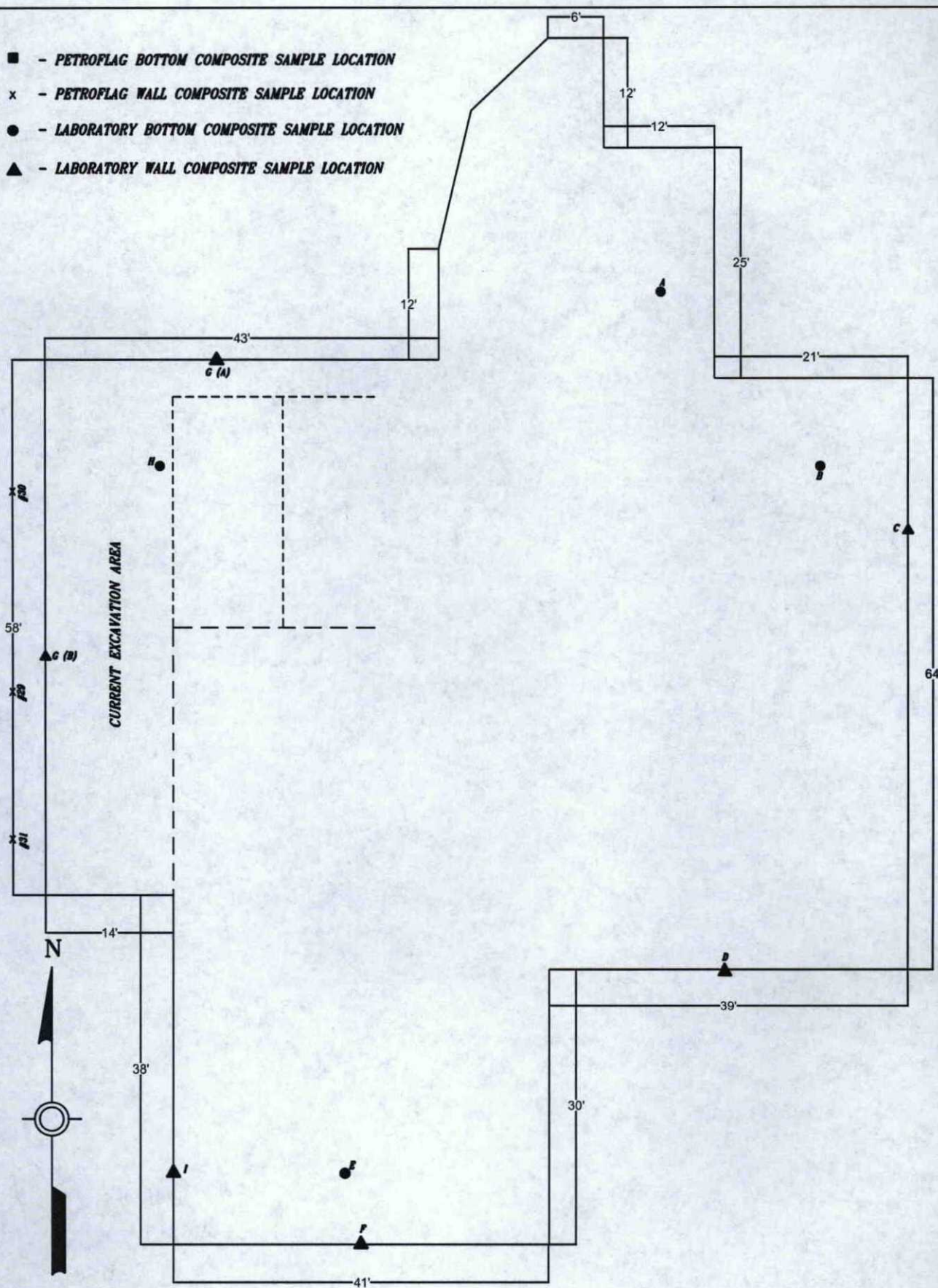
SOUDER, MILLER & ASSOCIATES, 2101 SAN JUAN BLVD.
FARMINGTON, NEW MEXICO 87401 TELE: 505-325-7535
Albuquerque - Las Cruces - Santa Fe, NM
Grand Junction - Cortez, CO MoAB, UT

KEY ENERGY SERVICES U.S. HIGHWAY 64 YARD
7/1/2011 TO 7/5/2011 SAN JUAN COUNTY, NM

FIGURE 3



- - PETROFLAG BOTTOM COMPOSITE SAMPLE LOCATION
- x - PETROFLAG WALL COMPOSITE SAMPLE LOCATION
- - LABORATORY BOTTOM COMPOSITE SAMPLE LOCATION
- ▲ - LABORATORY WALL COMPOSITE SAMPLE LOCATION



11192.168.1.10PROJECTS-KEY ENERGY HWY 64 YARD TANK CLEAN-UP 5121216/CAD/5121216HWY64EXCAVATION-CD2009.DWG



SOUDER, MILLER & ASSOCIATES, 2101 SAN JUAN BLVD.
FARMINGTON, NEW MEXICO 87401 TELE: 505-325-7535
Albuquerque - Las Cruces - Santa Fe, NM
Grand Junction - Cortez, CO MoAB, UT

KEY ENERGY SERVICES U.S. HIGHWAY 64 YARD
7/8/2011 SAN JUAN COUNTY, NM

FIGURE 5

**Table 1: Summary of Petroflag Analysis
Results
Key Energy Services
U.S. Highway 64 Yard**

SMA Project #
5121216 BG 1

Sample ID	Date	Depth (feet)	Result (ppm)
(1) North Bench	6/29/2011	4	22
(2) South Bench	6/29/2011	4	46
(3) Center Bench	6/29/2011	4	151
(4) East Bench	6/29/2011	Wall	
(5) Composite West	6/29/2011	4	243
(6) Composite North Bench	6/30/2011	5.5	87
(7) Composite South Excavation	6/30/2011	6.5	OR
(8) Composite A - NW Wall	6/30/2011	Wall	OR
(9) Composite B - SW Wall	6/30/2011	Wall	OR
(10) Composite SE Bottom	6/30/2011	7	552
(11) East Wall #1	6/30/2011	Wall	93
(12) East Wall #2	6/30/2011	Wall	131
(13) Under Tank	6/30/2011	8	209
(14) South Wall	6/30/2011	Wall	1435
(15) SE Wall Composite #1	6/30/2011	Wall	20
(16) SE Wall Composite #2	6/30/2011	Wall	97
(17) #1 West Wall	7/1/2011	3	OR
(18) #2 West Wall	7/1/2011	4.5	697
(19) #3 West Wall Composite	7/1/2011	Wall	1201
(20) #4 West Wall	7/5/2011	Wall	805
(21) #5 West Wall Composite	7/5/2011	Wall	634
(22) #6 Southwest Wall	7/5/2011	Wall	1422
(23) #7 West Wall	7/5/2011	Wall	OR
(24) #8 Southwest Wall	7/5/2011	Wall	162
(25) #9 Southwest Wall	7/5/2011	Wall	OR
(26) #10 West Wall Composite	7/6/2011	Wall	427
(27) #11 West Wall Composite	7/6/2011	Wall	699
(28) #12 Northwest Wall Composite	7/7/2011	Wall	862
(29) #13 Northwall Composite	7/7/2011	Wall	OR
(30) #14 West Wall Composite	7/8/2011	Wall	436
(31) #15 West Wall Composite	7/8/2011	Wall	103

Notes: OR/EEEE = Greater than the analytical range of the field instrument



Table 2: Summary of Laboratory Analysis

SMA Project # 5121216 BG 1

Key Energy Services
U.S. Highway 64 Yard

Sample Name	Date	USEPA METHOD 8021					USEPA METHOD 8015	
		Benzene	Toluene	Ethyl-Benzene	Total Xylenes	Total BTEX	Diesel Range	Gasoline Range
(A) North End @ 5.5' 5 pt Comp	6/30/2011	NA	NA	NA	NA	NA	37	<5.0
(B) Below Tank- 8" 5 pt Comp	6/30/2011	NA	NA	NA	NA	NA	19	<5.0
(C) East Wall @ 7' - 3 pt Comp	6/30/2011	NA	NA	NA	NA	NA	12	<5.0
(D) Southeast Wall - Main Excavation	7/5/2011	<0.048	<0.048	<0.048	<0.097	<0.097	12	<4.8
(E) Southwest Bottom @7' - Main Excavation	7/5/2011	<0.046	<0.046	<0.046	<0.092	<0.092	580	<46
(F) Southwest Wall - Main Excavation	7/5/2011	<0.050	<0.050	<0.050	<0.10	<0.10	410	<5.0
(G) North Wall Composite	7/8/2011	<0.047	<0.047	<0.047	<0.093	<0.093	<10	<4.7
(H) N.W. Bottom at 7.5'	7/8/2011	<0.048	<0.048	<0.048	<0.097	<0.097	70	<4.8
(I) S.W. Wall Comp.	7/8/2011	<0.048	<0.048	<0.048	<0.095	<0.095	180	<4.8
NMOCD Action Levels**		10				50		100

*all results in mg/Kg

**Action Levels based on groundwater depth less than 100 ft. bgs





Photo 1: View of the wash tank and bollards.

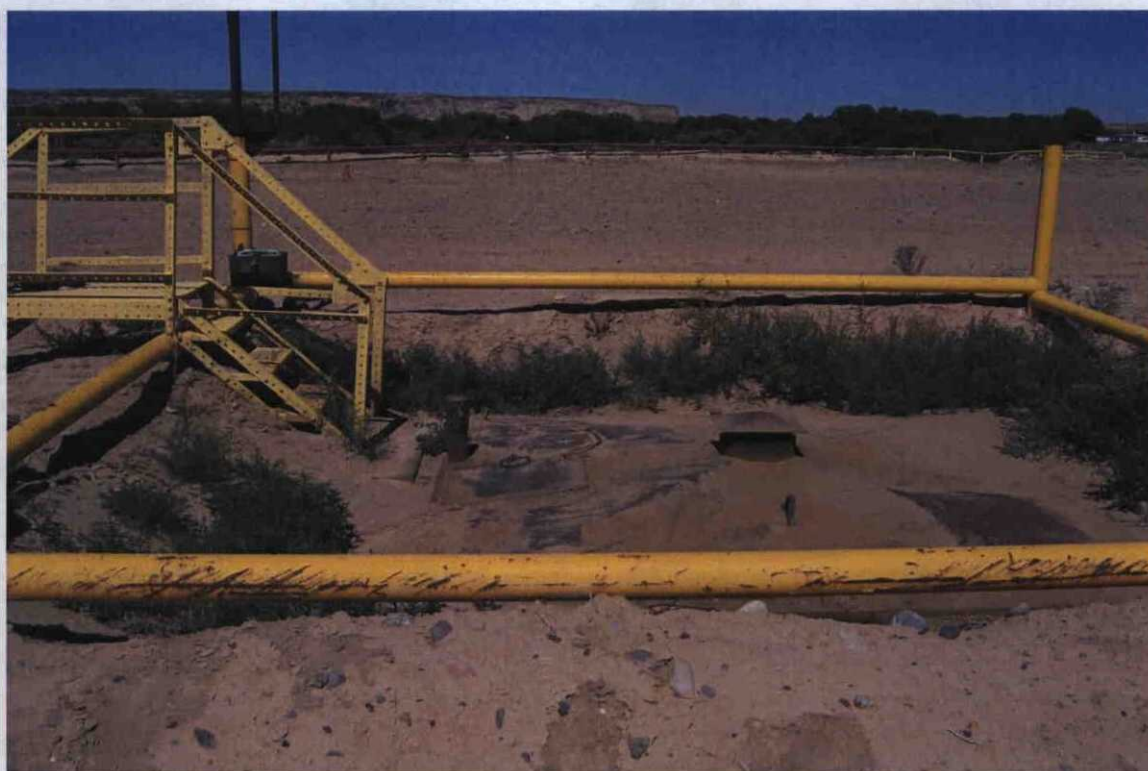


Photo 2: View of the wash tank and bollards.



Photo 3: View of the excavation around the wash tank.



Photo 4: View of the excavation around the wash tank.



Photo 5: View of the removal of the wash tank.



Photo 6: View of excavation activities along the southwest wall.



Photo 7: View of contaminated soil on the west side before excavating.



Photo 8: View of the contaminated soil on the west side before excavating.



Photo 9: View of the northwest side of the excavation.



Photo 10: View of a leach line discovered during excavation activities on the northwest side.



Photo 11: View excavation activities on the southwest corner.



Photo 12: View of the excavation, view from the south.



Photo 13: View of excavating activities on the south side.



Photo 14: View of the terminated excavation on the southwest corner.



Photo 15: View of the southwest corner of the excavation.



Photo 16: View of the west side of the excavation.



Photo 17: View of excavating activities on the northwest side.



Photo 18: View of the northwest side of the excavation.



Photo 19: View of the west side of the completed excavation.



Photo 20: View of backfilling activities on the east side of the excavation.



Photo 21: View of backfilling activities on the east side of the excavation.



Photo 22: View of backfilling activities on the east side of the excavation.



Photo 23: View of backfilling activities on the east side of the excavation.



Photo 24: View of backfilling activities of the excavation.



Photo 25: View of backfilling activities of the excavation.



Photo 26: View of backfilling activities of the excavation.



Photo 27: View of backfilling activities of the excavation.



Photo 28: View of backfilling activities of the excavation.



Photo 29: View of capped discharge line from the wash bays.



Photo 30: View of backfilling and compaction activities.



Photo 31: View of backfilling and compaction activities.



Photo 32: View of backfilling and compaction activities.



Photo 33: View of backfilled excavation.



Photo 34: View of backfilled excavation.



Photo 35: View of the cleaning of the wash bay sumps.



Photo 36: View of the cleaning of the wash bay sumps.



Photo 37: View of the cleaning of the wash bay sumps.



Photo 38: View of the cleaned wash bay sumps.



Photo 39: View of the cleaned wash bay sumps.



Photo 40: View of backfilling and compaction activities of the wash bay sumps.



Photo 41: View of backfilling and compaction activities of the wash bay sumps.



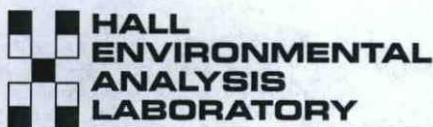
Photo 42: View of backfilling and compaction activities of the wash bay sumps.



Photo 43: View of wash bay sumps after concrete completions.



Photo 44: View of wash bay sumps after concrete completions.



COVER LETTER

Tuesday, July 05, 2011

Cindy Gray
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Hwy 64 Yard

Order No.: 1107002


Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/1/2011 for the analyses presented in the following report.

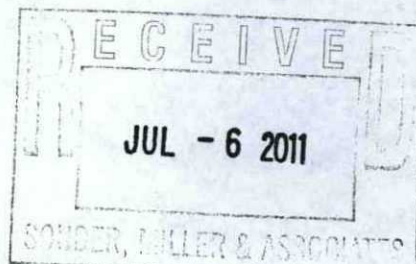
These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,


Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682



Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107002
Project: Key Energy Hwy 64 Yard
Lab ID: 1107002-01

Client Sample ID: N End @ 5.5' 5 pt comp
Collection Date: 6/30/2011 8:05:00 AM
Date Received: 7/1/2011
Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	37	9.7		mg/Kg	1	7/1/2011 1:49:59 PM
Surr: DNOP	109	73.4-123		%REC	1	7/1/2011 1:49:59 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2011 3:22:19 PM
Surr: BFB	104	75.2-136		%REC	1	7/1/2011 3:22:19 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107002
Project: Key Energy Hwy 64 Yard
Lab ID: 1107002-02

Client Sample ID: Below Tank-8" 5 pt comp
Collection Date: 6/30/2011 10:10:00 AM
Date Received: 7/1/2011
Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	19	9.9		mg/Kg	1	7/1/2011 2:24:23 PM
Surr: DNOP	95.0	73.4-123		%REC	1	7/1/2011 2:24:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2011 3:52:26 PM
Surr: BFB	102	75.2-136		%REC	1	7/1/2011 3:52:26 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107002
Project: Key Energy Hwy 64 Yard
Lab ID: 1107002-03

Client Sample ID: E Wall @ 7' 3 pt comp
Collection Date: 6/30/2011 12:00:00 PM
Date Received: 7/1/2011
Matrix: MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	12	9.9		mg/Kg	1	7/1/2011 2:59:17 PM
Surr: DNOP	97.7	73.4-123		%REC	1	7/1/2011 2:59:17 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2011 4:22:27 PM
Surr: BFB	86.4	75.2-136		%REC	1	7/1/2011 4:22:27 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates
Project: Key Energy Hwy 64 Yard

Work Order: 1107002

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-27455		MBLK									
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-27455		LCS									
Diesel Range Organics (DRO)	49.62	mg/Kg	10	50	0	99.2	66.7	119			
Sample ID: LCSD-27455		LCSD									
Diesel Range Organics (DRO)	52.62	mg/Kg	10	50	0	105	66.7	119	5.86	18.9	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/1/2011

Work Order Number 1107002

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Number of preserved
bottles checked for
pH:

<2 >12 unless noted
below.

Container/Temp Blank temperature?

1.0°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chain-of-Custody Record

Client: Souder Miller & Associates

Mailing Address: 2101 San Juan Blvd
Farmington NM 87401

Phone #: 505-325-5667

email or Fax#: Cindy Gray

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush Next Day Verba

Project Name:

Key Energy Hwy 64 Yard

Project #:

5121216

Project Manager:

Cindy Gray

Sampler: C. Gray

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

[illegible]

Date: 6/30/11	Time: 1440	Relinquished by: CA [Signature]
Date:	Time:	Relinquished by:

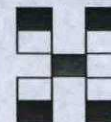
Date:	Time:	Relinquished by:
6/30/11	1705	Christen Waceta

Received by:	Date	Time
Christ Wagner	6/30/11	1440
Received by:	Date	Time

Received by:	Date	Time
<i>[Signature]</i>	07/01/11	0900

Remarks:

Email Verbal to Cindy Gray



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]



COVER LETTER

Monday, July 11, 2011

Cindy Gray
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Hwy 64 Yard

Order No.: 1107097


Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/6/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,


Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682



Hall Environmental Analysis Laboratory, Inc.

Date: 11-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107097
Project: Key Energy Hwy 64 Yard
Lab ID: 1107097-01

Client Sample ID: Southeast Wall Main Excavation
Collection Date: 7/5/2011 2:00:00 PM
Date Received: 7/6/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	12	10		mg/Kg	1	7/7/2011 4:06:04 PM
Surr: DNOP	94.9	73.4-123		%REC	1	7/7/2011 4:06:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/7/2011 8:39:22 PM
Surr: BFB	115	75.2-136		%REC	1	7/7/2011 8:39:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	7/7/2011 8:39:22 PM
Toluene	ND	0.048		mg/Kg	1	7/7/2011 8:39:22 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/7/2011 8:39:22 PM
Xylenes, Total	ND	0.097		mg/Kg	1	7/7/2011 8:39:22 PM
Surr: 4-Bromofluorobenzene	107	92-130		%REC	1	7/7/2011 8:39:22 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107097
Project: Key Energy Hwy 64 Yard
Lab ID: 1107097-02

Client Sample ID: Southwest Bottom @7'-Main Exc.
Collection Date: 7/5/2011 2:40:00 PM
Date Received: 7/6/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	580	200		mg/Kg	20	7/7/2011 4:41:30 PM
Surr: DNOP	0	73.4-123	S	%REC	20	7/7/2011 4:41:30 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	46		mg/Kg	10	7/8/2011 5:27:14 PM
Surr: BFB	92.2	75.2-136		%REC	10	7/8/2011 5:27:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.46		mg/Kg	10	7/7/2011 11:03:51 PM
Toluene	ND	0.46		mg/Kg	10	7/7/2011 11:03:51 PM
Ethylbenzene	ND	0.46		mg/Kg	10	7/7/2011 11:03:51 PM
Xylenes, Total	ND	0.92		mg/Kg	10	7/7/2011 11:03:51 PM
Surr: 4-Bromofluorobenzene	104	92-130		%REC	10	7/7/2011 11:03:51 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107097
Project: Key Energy Hwy 64 Yard
Lab ID: 1107097-03

Client Sample ID: Southwest Wall Main Excavation
Collection Date: 7/5/2011 2:45:00 PM
Date Received: 7/6/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	410	98		mg/Kg	10	7/8/2011 7:41:02 AM
Surr: DNOP	0	73.4-123	S	%REC	10	7/8/2011 7:41:02 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/8/2011 5:57:20 PM
Surr: BFB	97.2	75.2-136		%REC	1	7/8/2011 5:57:20 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.050		mg/Kg	1	7/8/2011 12:01:35 AM
Toluene	ND	0.050		mg/Kg	1	7/8/2011 12:01:35 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/8/2011 12:01:35 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/8/2011 12:01:35 AM
Surr: 4-Bromofluorobenzene	106	92-130		%REC	1	7/8/2011 12:01:35 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates

Project: Key Energy Hwy 64 Yard

Work Order: 1107097

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-27496		MBLK									
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-27496		LCS									
Diesel Range Organics (DRO)	49.29	mg/Kg	10	50	3.765	91.1	66.7	119			
Sample ID: LCSD-27496		LCSD									
Diesel Range Organics (DRO)	47.76	mg/Kg	10	50	3.765	88.0	66.7	119	3.15	18.9	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-27495		MBLK									
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-27495		LCS									
Gasoline Range Organics (GRO)	25.42	mg/Kg	5.0	25	0	102	88.8	124			
Method: EPA Method 8021B: Volatiles											
Sample ID: 1107097-01A MSD		MSD									
Benzene	0.8166	mg/Kg	0.047	0.945	0	86.4	67.2	113	16.1	14.3	R
Toluene	0.9174	mg/Kg	0.047	0.945	0	97.1	62.1	116	10.7	15.9	
Ethylbenzene	0.9654	mg/Kg	0.047	0.945	0	102	67.9	127	8.37	14.4	
Xylenes, Total	2.957	mg/Kg	0.095	2.836	0	104	60.6	134	6.89	12.6	
Sample ID: MB-27495		MBLK									
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-27495		LCS									
Benzene	0.8597	mg/Kg	0.050	1	0	86.0	83.3	107			
Toluene	0.9672	mg/Kg	0.050	1	0.0145	95.3	74.3	115			
Ethylbenzene	1.012	mg/Kg	0.050	1	0	101	80.9	122			
Xylenes, Total	3.102	mg/Kg	0.10	3	0.0245	103	85.2	123			
Sample ID: 1107097-01A MS		MS									
Benzene	0.9600	mg/Kg	0.049	0.978	0	98.2	67.2	113			
Toluene	1.021	mg/Kg	0.049	0.978	0	104	62.1	116			
Ethylbenzene	1.050	mg/Kg	0.049	0.978	0	107	67.9	127			
Xylenes, Total	3.168	mg/Kg	0.098	2.933	0	108	60.6	134			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/6/2011

Work Order Number 1107097

Received by: LNM

Checklist completed by:

Sample ID labels checked by:

Signature

Date

Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

3.3°

<6° C Acceptable

If given sufficient time to cool.

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

☐ EDD (Type) _____

Sample Temperature: 3.2

Tel. 505-345-3975 Fax 505-345-4107

[illegible][illegible]

Date: 7/5/11	Time: 1515	Relinquished by: <i>[Signature]</i>	Received by: <i>Christine Walter</i>	Date 7/5/11	Time 1505
Date: 7/5/11	Time: 1604	Relinquished by: <i>Christine Walter</i>	Received by: <i>[Signature]</i>	Date 7/5/11	Time 1602

Remarks:	
----------	--



COVER LETTER

Wednesday, July 20, 2011

Cindy Gray
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Yard

Order No.: 1107366

Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/12/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

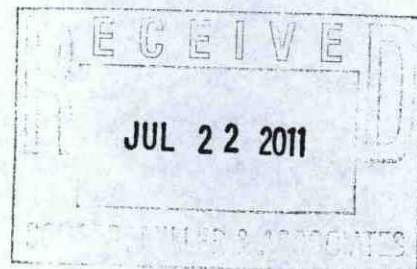
Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109

505.345.3975 ■ Fax 505.345.4107

www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: 20-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107366
Project: Key Energy Yard
Lab ID: 1107366-01

Client Sample ID: N. Wall Comp.
Collection Date: 7/8/2011 10:20:00 AM
Date Received: 7/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/14/2011 11:11:11 AM
Surr: DNOP	99.4	73.4-123		%REC	1	7/14/2011 11:11:11 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/14/2011 5:19:41 PM
Surr: BFB	84.0	75.2-136		%REC	1	7/14/2011 5:19:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.047		mg/Kg	1	7/14/2011 5:19:41 PM
Toluene	ND	0.047		mg/Kg	1	7/14/2011 5:19:41 PM
Ethylbenzene	ND	0.047		mg/Kg	1	7/14/2011 5:19:41 PM
Xylenes, Total	ND	0.093		mg/Kg	1	7/14/2011 5:19:41 PM
Surr: 4-Bromofluorobenzene	88.3	92-130	S	%REC	1	7/14/2011 5:19:41 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 20-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107366
Project: Key Energy Yard
Lab ID: 1107366-02

Client Sample ID: N.W. Bottom @7.5'
Collection Date: 7/8/2011 10:25:00 AM
Date Received: 7/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	70	9.7		mg/Kg	1	7/15/2011 10:32:59 AM
Surr: DNOP	105	73.4-123		%REC	1	7/15/2011 10:32:59 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/14/2011 5:49:40 PM
Surr: BFB	86.3	75.2-136		%REC	1	7/14/2011 5:49:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	7/14/2011 5:49:40 PM
Toluene	ND	0.048		mg/Kg	1	7/14/2011 5:49:40 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/14/2011 5:49:40 PM
Xylenes, Total	ND	0.096		mg/Kg	1	7/14/2011 5:49:40 PM
Surr: 4-Bromofluorobenzene	84.2	92-130	S	%REC	1	7/14/2011 5:49:40 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 20-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107366
Project: Key Energy Yard
Lab ID: 1107366-03

Client Sample ID: S.W. Wall Comp.
Collection Date: 7/8/2011 11:30:00 AM
Date Received: 7/12/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	180	100		mg/Kg	10	7/14/2011 2:04:28 PM
Surr: DNOP	0	73.4-123	S	%REC	10	7/14/2011 2:04:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/14/2011 6:19:38 PM
Surr: BFB	92.4	75.2-136		%REC	1	7/14/2011 6:19:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.048		mg/Kg	1	7/14/2011 6:19:38 PM
Toluene	ND	0.048		mg/Kg	1	7/14/2011 6:19:38 PM
Ethylbenzene	ND	0.048		mg/Kg	1	7/14/2011 6:19:38 PM
Xylenes, Total	ND	0.095		mg/Kg	1	7/14/2011 6:19:38 PM
Surr: 4-Bromofluorobenzene	96.5	92-130		%REC	1	7/14/2011 6:19:38 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates

Project: Key Energy Yard

Work Order: 1107366

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-27581		MBLK				Batch ID: 27581		Analysis Date: 7/14/2011 9:27:44 AM			
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-27581		LCS				Batch ID: 27581		Analysis Date: 7/14/2011 10:02:25 AM			
Diesel Range Organics (DRO)	50.96	mg/Kg	10	50	0	102	66.7	119			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-27576		MBLK				Batch ID: 27576		Analysis Date: 7/14/2011 4:49:33 PM			
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-27576		LCS				Batch ID: 27576		Analysis Date: 7/14/2011 10:21:34 PM			
Gasoline Range Organics (GRO)	27.18	mg/Kg	5.0	25	0	109	88.8	124			
Method: EPA Method 8021B: Volatiles											
Sample ID: 1107366-01A MSD		MSD				Batch ID: 27576		Analysis Date: 7/14/2011 11:51:56 PM			
Benzene	1.013	mg/Kg	0.047	0.946	0	107	67.2	113	1.67	14.3	
Toluene	0.9290	mg/Kg	0.047	0.946	0	98.2	62.1	116	1.40	15.9	
Ethylbenzene	1.021	mg/Kg	0.047	0.946	0	108	67.9	127	1.31	14.4	
Xylenes, Total	3.169	mg/Kg	0.095	2.838	0	112	60.6	134	1.99	12.6	
Sample ID: MB-27576		MBLK				Batch ID: 27576		Analysis Date: 7/14/2011 4:49:33 PM			
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-27576		LCS				Batch ID: 27576		Analysis Date: 7/14/2011 10:51:35 PM			
Benzene	0.9929	mg/Kg	0.050	1	0.0051	98.8	83.3	107			
Toluene	0.9024	mg/Kg	0.050	1	0	90.2	74.3	115			
Ethylbenzene	0.9748	mg/Kg	0.050	1	0.0057	96.9	80.9	122			
Xylenes, Total	3.052	mg/Kg	0.10	3	0	102	85.2	123			
Sample ID: 1107366-01A MS		MS				Batch ID: 27576		Analysis Date: 7/14/2011 11:21:48 PM			
Benzene	1.030	mg/Kg	0.049	0.984	0	105	67.2	113			
Toluene	0.9421	mg/Kg	0.049	0.984	0	95.7	62.1	116			
Ethylbenzene	1.034	mg/Kg	0.049	0.984	0	105	67.9	127			
Xylenes, Total	3.233	mg/Kg	0.098	2.953	0	109	60.6	134			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/12/2011

Work Order Number 1107366

Received by:

AMG

Checklist completed by:

Signature

Date

Sample ID labels checked by

Initials

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?

Yes ☒

No

Not Present

Custody seals intact on shipping container/cooler?

Yes ☒

No

Not Present

Not Shipped

Custody seals intact on sample bottles?

Yes ☒

No

N/A

☒

Chain of custody present?

Yes ☒

No

Chain of custody signed when relinquished and received?

Yes ☒

No

Chain of custody agrees with sample labels?

Yes ☒

No

Samples in proper container/bottle?

Yes ☒

No

Sample containers intact?

Yes ☒

No

Sufficient sample volume for indicated test?

Yes ☒

No

All samples received within holding time?

Yes ☒

No

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes

No

Water - Preservation labels on bottle and cap match?

Yes ☒

No

N/A ☒

Water - pH acceptable upon receipt?

Yes ☒

No

N/A ☒

Container/Temp Blank temperature?

2.9°

<6° C Acceptable

If given sufficient time to cool.

Number of preserved
bottles checked for
pH:

<2 >12 unless noted
below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chain-of-Custody Record

Client: SMA

Mailing Address: 2101 San Juan Blvd.

Farmington, NM 87401

Phone #: 505-225-7535

email or Fax#: Cindy. Gray@Soudermiller.w

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Key Energy Yard

Project #:

5/2/2/6

Project Manager:

Cindy Gray

Sampler: Thomas Long

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.9


[illegible]

Date: 7/9/11	Time: 1430	Relinquished by: [Signature]
--------------	------------	------------------------------

Received by:	Date	Time
Christopher Walter	7/11/11	1520

Remarks:

Date:	Time:	Relinquished by:
7/11/11	1641	Christine Webster

Received by:  Date: 7/12/11 Time: 11:30

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



COVER LETTER

Thursday, July 21, 2011

Cindy Gray
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Yard

Dear Cindy Gray:

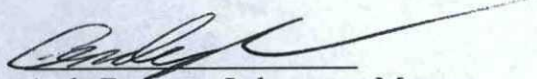
Order No.: 1107566

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 7/15/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

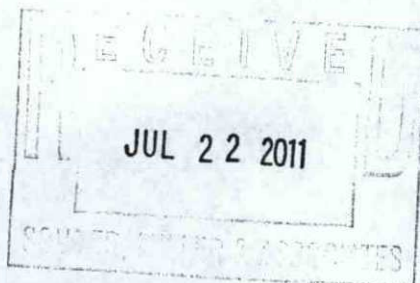
Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682



Hall Environmental Analysis Laboratory, Inc.

Date: 21-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1107566
Project: Key Energy Yard
Lab ID: 1107566-01

Client Sample ID: Sump 1 West Bay
Collection Date: 7/14/2011 3:45:00 PM
Date Received: 7/15/2011
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:55:29 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:41:53 PM
Barium	0.095	0.020		mg/L	1	7/18/2011 2:41:53 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:41:53 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:41:53 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:41:53 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.**Date:** 21-Jul-11
Analytical Report**CLIENT:** Souder, Miller and Associates
Lab Order: 1107566
Project: Key Energy Yard
Lab ID: 1107566-02**Client Sample ID:** Sump 4 North Bay
Collection Date: 7/14/2011 3:55:00 PM
Date Received: 7/15/2011
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:57:17 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:44:21 PM
Barium	0.12	0.020		mg/L	1	7/18/2011 2:44:21 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:44:21 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:44:21 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:44:21 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

July 20, 2011

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : July 16, 2011
Description : 1107566
Sample ID : SUMP 1 WEST BAY
Collected By :
Collection Date : 07/14/11 15:45

ESC Sample # : L526347-01

Site ID :

Project # : 1107566

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	07/20/11	1
Flashpoint	See Footnote		deg F	D93/1010A	07/20/11	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/l	9012B	07/20/11	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/l	9034/9030B	07/20/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 07/20/11 17:40 Printed: 07/20/11 17:40
L526347-01 (FLASHPOINT) - Did Not Flash @ 170 F



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859
Tax I.D. 62-0814289
Est. 1970

REPORT OF ANALYSIS

July 20, 2011

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : July 16, 2011
Description : 1107566
Sample ID : SUMP 2 NORTH BAY
Collected By :
Collection Date : 07/14/11 15:55

ESC Sample # : L526347-02

Site ID :

Project # : 1107566

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	07/20/11	1
Flashpoint	See Footnote		deg F	D93/1010A	07/20/11	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/l	9012B	07/20/11	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/l	9034/9030B	07/20/11	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 07/20/11 17:40 Printed: 07/20/11 17:40
L526347-02 (FLASHPOINT) - Did Not Flash @ 170 F

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L526347-01	WG546374	SAMP	Corrosivity	R1772511	T8
L526347-02	WG546374	SAMP	Corrosivity	R1772511	T8

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



YOUR LAB OF CHOICE

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L526347

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

July 20, 2011

Analyte	Result	Laboratory Blank Units	% Rec	Limit	Batch	Date Analyzed
Corrosivity	3.90				WG546374	07/20/11 11:19
Reactive Sulf. (SW846 7.3.4.1)	< 25	mg/l			WG546418	07/20/11 09:06
Reactive CN (SW846 7.3.3.2)	< .125	mg/l			WG546419	07/20/11 17:13

Analyte	Units	Result	Duplicate Duplicate	RPD	Limit	Ref Samp	Batch
Corrosivity		0	0	0	10	L526347-01	WG546374
Reactive Sulf. (SW846 7.3.4.1)	mg/l	0	0	0	20	L526347-01	WG546418
Flashpoint	deg F	0	0	0	20	L526300-04	WG546198

Analyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
Corrosivity		6.3	6.30	100	97.98-102.02	WG546374
Reactive Sulf. (SW846 7.3.4.1)	mg/l	100	78.0	78.0	70-130	WG546418
Flashpoint	deg F	82	82.0	100	96-104	WG546198

Analyte	Units	Result	Laboratory Control Sample Duplicate Ref	% Rec	Limit	RPD	Limit	Batch
Corrosivity		6.30	6.30	100	97.98-102.02	0	10	WG546374
Reactive Sulf. (SW846 7.3.4.1)	mg/l	90.0	78.0	90.0	70-130	14.3	20	WG546418
Flashpoint	deg F	82.0	82.0	100	96-104	0	7	WG546198

Batch number / Run number / Sample number cross reference

WG546374: R1772511: L526347-01 02
WG546418: R1773091: L526347-01 02
WG546198: R1773350: L526347-01 02
WG546419: R1773832: L526347-01 02

* * Calculations are performed prior to rounding of reported values.

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates
 Project: Key Energy Yard

Work Order: 1107566

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7470: Mercury											
Sample ID: MB-27649		MBLK				Batch ID: 27649		Analysis Date: 7/19/2011 2:43:07 PM			
Mercury	ND	mg/L	0.00020								
Sample ID: LCS-27649		LCS				Batch ID: 27649		Analysis Date: 7/19/2011 2:44:51 PM			
Mercury	0.005013	mg/L	0.00020	0.005	2E-05	99.9	80	120			

Method: EPA 6010B: Total Recoverable Metals

Sample ID: MB-27618		MBLK				Batch ID: 27618		Analysis Date: 7/18/2011 2:39:44 PM			
Arsenic	ND	mg/L	0.020								
Barium	ND	mg/L	0.020								
Cadmium	ND	mg/L	0.0020								
Chromium	ND	mg/L	0.0060								
Lead	ND	mg/L	0.0050								
Selenium	ND	mg/L	0.050								
Silver	ND	mg/L	0.0050								
Sample ID: LCS-27618		LCS				Batch ID: 27618		Analysis Date: 7/18/2011 2:35:50 PM			
Arsenic	0.5194	mg/L	0.020	0.5	0	104	80	120			
Barium	0.5016	mg/L	0.020	0.5	0	100	80	120			
Cadmium	0.5044	mg/L	0.0020	0.5	0.0009	101	80	120			
Chromium	0.5229	mg/L	0.0060	0.5	0	105	80	120			
Lead	0.5007	mg/L	0.0050	0.5	0	100	80	120			
Selenium	0.5133	mg/L	0.050	0.5	0	103	80	120			
Silver	0.1047	mg/L	0.0050	0.1	0	105	80	120			

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/15/2011

Work Order Number 1107566

Received by: AMG

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Greyhound

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☐

No ☒

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

2.3°

<6° C Acceptable

If given sufficient time to cool.

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

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-138
Revised March 12, 2007

*Surface Waste Management Facility Operator
and Generator shall maintain and make this
documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:

Key Energy, 5651 U.S. Hwy 64, Farmington, NM 87401

2. Originating Site:

Key Energy Yard, 5651 U.S. Hwy 64, Farmington, NM

3. Location of Material (Street Address, City, State or ULSTR):

Key Energy Yard, 5651 U.S. Hwy 64, Farmington, NM

4. Source and Description of Waste:

Soils excavated from around field truck wash bay effluent holding tank in yard; old overfills and small spills.
TPH ranging from 0 to 8000 ppm; Tested for RCRA 8 Metals

Estimated Volume 700 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) yd³ / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, YAHZ, representative or authorized agent for Key Energy do hereby
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988
regulatory determination, the above described waste is: (Check the appropriate classification)

☐ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-
exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by
characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261,
subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check
the appropriate items)

☐ MSDS Information ☒ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, , representative for do hereby certify that
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of
19.15.36 NMAC.

5. Transporter:

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Industrial Ecosystems, Inc.

Address of Facility:

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME:

TITLE:

DATE:

SIGNATURE:

TELEPHONE NO.:

Surface Waste Management Facility Authorized Agent

Hall Environmental Analysis Laboratory, Inc.

Date: 29-Jun-11

Analytical Report

CLIENT: Souder, Miller and Associates
Lab Order: 1106A67
Project: Key Energy Hwy 64 Yard
Lab ID: 1106A67-01

Client Sample ID: Composite Stockpile & Pit
Collection Date: 6/24/2011 1:45:00 PM
Date Received: 6/27/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7471: MERCURY Analyst: ELS						
Mercury	ND	0.033		mg/Kg	1	6/27/2011 2:01:20 PM
EPA METHOD 6010B: SOIL METALS Total, not TCLP Analyst: RAGS						
Arsenic	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Barium	210	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Cadmium	ND	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Chromium	5.6	1.5		mg/Kg	5	6/28/2011 10:22:44 AM
Lead	13	1.3		mg/Kg	5	6/28/2011 10:22:44 AM
Selenium	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Silver	ND	1.3		mg/Kg	5	6/28/2011 10:22:44 AM

TCLP equivalent

Ba $210 \div 20 = 10.5 \text{ mg/Kg}$

Cr $5.6 \div 20 = 0.28 \text{ mg/Kg}$

Pb $13 \div 20 = 0.65 \text{ mg/Kg}$

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

PRELIMINARY

B Analyte detected in the associated Method Blank
H Holding time for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits



COVER LETTER

Wednesday, June 29, 2011

Cindy Gray
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: Key Energy Hwy 64 Yard

Order No.: 1106A67

Dear Cindy Gray:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/27/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

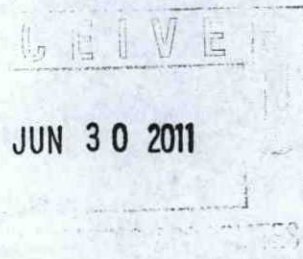
Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682



Hall Environmental Analysis Laboratory, Inc.**Date:** 29-Jun-11**Analytical Report****CLIENT:** Souder, Miller and Associates**Client Sample ID:** Composite Stockpile & Pit**Lab Order:** 1106A67**Collection Date:** 6/24/2011 1:45:00 PM**Project:** Key Energy Hwy 64 Yard**Date Received:** 6/27/2011**Lab ID:** 1106A67-01**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7471: MERCURY						Analyst: ELS
Mercury	ND	0.033		mg/Kg	1	6/27/2011 2:01:20 PM
EPA METHOD 6010B: SOIL METALS						Analyst: RAGS
Arsenic	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Barium	210	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Cadmium	ND	0.50		mg/Kg	5	6/28/2011 10:22:44 AM
Chromium	5.6	1.5		mg/Kg	5	6/28/2011 10:22:44 AM
Lead	13	1.3		mg/Kg	5	6/28/2011 10:22:44 AM
Selenium	ND	13		mg/Kg	5	6/28/2011 10:22:44 AM
Silver	ND	1.3		mg/Kg	5	6/28/2011 10:22:44 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates
 Project: Key Energy Hwy 64 Yard

Work Order: 1106A67

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7471: Mercury											
Sample ID: MB-27367		MBLK									
Mercury	ND	mg/Kg	0.033								
Sample ID: LCS-27367		LCS									
Mercury	0.1618	mg/Kg	0.033	0.167	0.0029	95.4	80	120			
Method: EPA Method 6010B: Soil Metals											
Sample ID: 1106A67-01AMSD		MSD									
Arsenic	28.10	mg/Kg	13	24.97	2.261	103	75	125	0.734	20	
Cadmium	24.80	mg/Kg	0.50	24.97	0	99.3	75	125	2.38	20	
Chromium	32.28	mg/Kg	1.5	24.97	5.558	107	75	125	0.530	20	
Lead	33.69	mg/Kg	1.3	24.97	12.96	83.0	75	125	2.07	20	
Selenium	23.25	mg/Kg	13	24.97	0	93.1	75	125	24.1	20	R
Silver	4.856	mg/Kg	1.3	4.994	0	97.2	75	125	1.95	20	
Sample ID: MB-27374		MBLK									
Arsenic	ND	mg/Kg	2.5								
Barium	ND	mg/Kg	0.10								
Cadmium	ND	mg/Kg	0.10								
Chromium	ND	mg/Kg	0.30								
Lead	ND	mg/Kg	0.25								
Selenium	ND	mg/Kg	2.5								
Silver	ND	mg/Kg	0.25								
Sample ID: LCS-27374		LCS									
Arsenic	25.79	mg/Kg	2.5	25	0	103	80	120			
Barium	25.65	mg/Kg	0.10	25	0	103	80	120			
Cadmium	24.97	mg/Kg	0.10	25	0	99.9	80	120			
Chromium	25.76	mg/Kg	0.30	25	0	103	80	120			
Lead	24.46	mg/Kg	0.25	25	0	97.8	80	120			
Selenium	24.58	mg/Kg	2.5	25	0	98.3	80	120			
Silver	4.992	mg/Kg	0.25	5	0	99.8	80	120			
Sample ID: 1106A67-01AMS		MS									
Arsenic	27.89	mg/Kg	13	24.8	2.261	103	75	125			
Cadmium	24.22	mg/Kg	0.50	24.8	0	97.7	75	125			
Chromium	32.45	mg/Kg	1.5	24.8	5.558	108	75	125			
Lead	33.00	mg/Kg	1.3	24.8	12.96	80.8	75	125			
Selenium	18.26	mg/Kg	13	24.8	0	73.6	75	125			S
Silver	4.763	mg/Kg	1.3	4.96	0	96.0	75	125			

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

6/27/2011

Work Order Number 1106A67

Received by: AT

Sample ID labels checked by:

Initials A

Checklist completed by:

Signature

Date

Matrix:

Carrier name: Greyhound

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

8.1°"

<6° C Acceptable

If given sufficient time to cool.

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

☐ EDD (Type)

Sample Temperature:

☒ Yes ☐ No

1106 ALT

BLACK PEARLS

Air Bubbles (Y or N)

Date	Time
------	------

Need 48hr. Rush t

Surface Waste Management Facility Authorized Agent

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates

Client Sample ID: Sump 1 West Bay

Lab Order: 1107566

Collection Date: 7/14/2011 3:45:00 PM

Project: Key Energy Yard

Date Received: 7/15/2011

Lab ID: 1107566-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:55:29 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:41:53 PM
Barium	0.095	0.020		mg/L	1	7/18/2011 2:41:53 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:41:53 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:41:53 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:41:53 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:41:53 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 19-Jul-11

Analytical Report

CLIENT: Souder, Miller and Associates

Client Sample ID: Sump 4 North Bay

Lab Order: 1107566

Collection Date: 7/14/2011 3:55:00 PM

Project: Key Energy Yard

Date Received: 7/15/2011

Lab ID: 1107566-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7470: MERCURY						Analyst: MBR
Mercury	ND	0.00020		mg/L	1	7/19/2011 2:57:17 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Arsenic	ND	0.020		mg/L	1	7/18/2011 2:44:21 PM
Barium	0.12	0.020		mg/L	1	7/18/2011 2:44:21 PM
Cadmium	ND	0.0020		mg/L	1	7/18/2011 2:44:21 PM
Chromium	ND	0.0060		mg/L	1	7/18/2011 2:44:21 PM
Lead	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM
Selenium	ND	0.050		mg/L	1	7/18/2011 2:44:21 PM
Silver	ND	0.0050		mg/L	1	7/18/2011 2:44:21 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits



Generator's Non-hazardous Waste Profile Sheet

Requested Disposal Facility: San Juan County LandfillProfile Number: 101405NM☐ Renewal for Profile Number: _____

Waste Approval Expiration Date: _____

☐ Check here if there are multiple generating locations for this waste. Attach additional locations.**A. Waste Generator Facility Information (must reflect location of waste generation/origin)**

1. Generator Name: Key Energy
2. Site Address: 5651 US Highway 64
3. City/ZIP: Farmington, 87401
4. State: NM
5. County: San Juan
6. Contact Name/Title: Cynthia Gray, Senior Scientist
7. Email Address: cindy.gray@soudermiller.com
8. Phone: 1-505-325-5667 9. FAX: 1-505-327-1496
10. NAICS Code: _____
11. Generator USEPA ID #: _____
12. State ID# (if applicable): _____
P. O. Number: 5121216

B. Customer Information ☐ same as above

1. Customer Name: Souder, Miller & Associates
2. Billing Address: 2101 San Juan Blvd.
3. City, State and ZIP: Farmington, NM, 87401
4. Contact Name: Cindy Gray
5. Contact Email: cindy.gray@soudermiller.com
6. Phone: 505-325-7535 FAX: 505-326-0045
7. Transporter Name: Southwest Field Services
8. Transporter ID # (if appl.): _____
9. Transporter Address: 1210 Hutton Rd.
10. City, State and ZIP: Farmington, New Mexico, 87402

C. Waste Stream Information

1. DESCRIPTION

a. Common Waste Name: crushed fiberglass open-top surface tank pieces

State Waste Code(s): _____

b. Describe Process Generating Waste or Source of Contamination:

Fiberglass tank pieces found during clean-up excavation of an oilfield service company yardc. Typical Color(s): dirty beiged. Strong Odor? ☐ Yes ☒ No Describe: _____e. Physical State at 70°F: ☒ Solid ☐ Liquid ☐ Powder ☐ Semi-Solid or Sludge ☐ Other: _____f. Layers? ☐ Single layer ☐ Multi-layer ☒ N/Ag. Water Reactive? ☐ Yes ☒ No If Yes, Describe: _____h. Free Liquid Range (%): _____ to _____ ☒ NA(solid)i. pH Range: N/A to N/A ☒ NA(solid)j. Liquid Flash Point: ☐ < 140°F ☐ 140°- 199°F ☐ ≥ 200°F ☒ NA(solid)k. Flammable Solid: ☐ Yes ☒ Nol. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-80%, Wood 0-20%): ☐ (See Attached)

Constituents (Total Composition Must be ≥ 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. <u>Fiberglass</u>	<u>>99%</u>			
2. <u>Oil impacted soils</u>	<u><1%</u>			
3. _____				
4. _____				
5. _____				
6. _____				

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION

a. ☒ One Time Event ☐ Base ☐ Repeat Eventb. Estimated Annual Quantity: <1 when ☐ Tons ☒ Cubic Yards ☐ Drums ☐ Gallons ☐ Other (specify): _____c. Shipping Frequency: 1 Units per ☐ Month ☐ Quarter ☐ Year ☒ One Time ☐ Otherd. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) ☐ Yes ☒ No

e. USDOT Shipping Description (if applicable): _____

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): None

**D. Regulatory Status (Please check appropriate responses)**

1. Waste Identification:
- a. Does the waste meet the definition of a USEPA listed or characteristic hazardous waste as defined by 40 CFR Part 261? ☐ Yes ☒ No
1. If yes, please complete a hazardous waste profile.
- b. Does the waste meet the definition of a state hazardous waste other than identified in D.1.a? ☐ Yes ☒ No
1. If yes, please complete a hazardous waste profile.
2. Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation. ☐ Yes ☒ No
- ☐ Delisted Hazardous Waste ☐ Excluded Wastes Under 40CFR 261.4
☐ Treated Hazardous Waste Debris ☐ Treated Characteristic Hazardous Waste
3. Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up? If yes, see instructions. ☐ Yes ☒ No
4. Does the waste represented by this waste profile sheet contain radioactive material? ☐ Yes ☒ No
- a. If yes, is disposal regulated by the Nuclear Regulatory Commission? ☐ Yes ☐ No
b. If yes, is disposal regulated by a State Agency for radioactive waste/NORM? ☐ Yes ☐ No
5. Does the waste represented by this waste profile sheet contain Polychlorinated Biphenyls (PCBs)? ☐ Yes ☒ No
(If yes, list in Chemical Composition - C.1.1.)
- a. If yes, are the PCBs regulated by 40 CFR 761? ☐ Yes ☐ No
b. If yes, is it remediation waste from a project being performed under the Self-Implementing option provided in 40 CFR 761.61(a)? ☐ Yes ☐ No
c. If yes, were the PCBs imported into the US? ☐ Yes ☐ No
6. Does the waste contain untreated, regulated medical or infectious waste? ☐ Yes ☒ No
7. Does the waste contain asbestos? ☐ Yes ☒ No
- a. If Yes, ☐ Friable ☐ Non Friable
8. Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation NESHAP, 40 CFR 63 subpart GGGGG)? ☐ Yes ☒ No
- a. If yes, does the waste contain <500 ppmw VOHAPs at the point of determination? ☐ Yes ☐ No

E. Generator Certification (Please read and certify by signature below)

By signing this Generator's Waste Profile Sheet, I hereby certify that all:

1. Information submitted in this profile and all attached documents contain true and accurate descriptions of the waste material;
2. Relevant information within the possession of the Generator regarding known or suspected hazards pertaining to this waste has been disclosed to WM/the Contractor;
3. Analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules; and
4. Changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by the Generator and disclosed to WM (and the Contractor if applicable) prior to providing the waste to WM (and the contractor if applicable).
5. Check all that apply:
- ☐ a. Attached analytical pertains to the waste. Identify laboratory & sample ID #'s and parameters tested: _____ # Pages: _____
- ☐ b. Only the analysis identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested). Attachment #: _____
- ☒ c. Additional information necessary to characterize the profiled waste has been attached (other than analytical, such as MSDS). Indicate the number of attached pages: 1
- ☐ d. I am an agent signing on behalf of the Generator, and the delegation of authority to me from the Generator for this signature is available upon request.

Certification Signature:  Title: Corporate Environmental Director

Company Name: Key Energy Services, Inc. Name (Print): Daniel K. Gibson, PG

Date: 7/12/11



WM of NM - San Juan County
78 County Road 3140
Aztec, NM, 87410
Ph: (505) 334-1121

Original
Ticket# 1373378

Customer Name SOUDERMILLERASS SOUDER MILLER Carrier SOUFIE SOUTHWEST FIELD SERVICES
Ticket Date 07/22/2011 Vehicle# 126 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000062
State Waste Code Gen EPA ID
Manifest 19432 Grid
Destination
PO
Profile 101405NM (Key Energy Services, Inc)
Generator 153-KEYENERGYSERVICESINC Key Energy Services, Inc.

	Time	Scale	Operator	Inbound	Gross	
In	07/22/2011 09:35:16	Inbound 301	mgonzales			9080 lb
Out	07/22/2011 09:50:37	Outbound 302	mgonzales		Tare	8100 lb
					Net	980 lb
					Tons	0.49

Comments



Product

LD%	Qty	UOM	Rate	Tax	Amount	Origin
	3.00	Yards				
1 SpwasteSolidOth-Cu 100						
2 P6ENV-T-Environmen 100		%				FARM
3 FUEL-T-Fuel Surcha 100		%				FARM
						FARM

377-1003

Total Tax
Total Ticket

Driver's Signature

*Derman
Harvey*

WM

TICKET # 1373378
19432

SPECIAL WASTE SHIPMENT RECORD

WASTE MANAGEMENT OF NEW MEXICO, INC.

SAN JUAN COUNTY REGIONAL LANDFILL

PERMIT #SWM-052426, #SWM-052426SP

#78 CR 3140 P.O. Box 1402

Aztec, New Mexico 87410

505/334-1121

Shipment # _____

Profile # 1014031NM
(Required)

SW FIELDS # 126

1. Generator's Work site name and address (physical site address of waste generation) Sam as #2		
2. Generator's name and address Key Energy Services 5651 Hwy 64, Farmington, NM 87401		Generator's Telephone no.
3. Authorized Agent name and address (if different from #2) Souder Miller & Associates 2101 San Juan Blvd, Farmington		Agent's Telephone no. 325-5667
4. Description materials	5. Container's No. 1 Type B	6. Total Quantity (tons) (yd3) 340
Fiberglass tank pieces with soils		2.3
7. Special handling instructions		
8. GENERATOR or AUTHORIZED AGENT CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway in accordance with applicable international and government regulations. I hereby certify that the above named material does not contain free liquid as defined by 40CFR Part 258.28 and is not a hazardous waste as defined by 40CFR 261 or any applicable state law.		
Generator or Agent (Printed/typed name and title) Key Energy Services by Cynthia Gray		Generator or Agents Signature [Signature]
		Month/Day/Year 7/22/11
9. Transporter 1 (Acknowledgement of receipt of materials)		
Printed/typed name & title, address, telephone no. Southwest Field Service 1210 Hutton Farmington, NM		Driver Signature [Signature]
		Month/Day/Year 7/22/11
10. Transporter 2 (Acknowledgement of receipt of materials)		
Printed/typed name & title, address, telephone no.		Driver Signature
		Month/Day/Year / /
11. Discrepancy indication space		
12. Waste disposal site Location co-ordinates (X,Y,Z) Elev. 5788 N 36° 46.068 W 108° 02.778		
Received by name and title (Printed/typed) Nathalie Gonzalez SITE ATTENDANT		SJC Landfill Rep. Signature [Signature]
		Month / Day / Year 7/22/11



Industrial Ecosystems Inc
Soil Reclamation Center
Material Tracking Sheet

Date: 10/30/11

(20)

COMPANY NAME: Sander Miller

ORIGIN OF MATERIAL (LOCATION): Key Yard

NOTES: Southwest field serv.

COMPANY REP. Paul Martinez
PHONE # _____
PAYKEY/P.O.# 501

H2S GAS ☒ NON DETECT ☐ DETECT
112 Chlorides PH _____

Paint Filter Test: ☒ Passed ☐ Failed

____ TDS
☐ Pit ☐ Tanks

	Date	Time	Transported by	Truck#	Yards	VS Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	10/30	8:10	Southwest	211	10	10	Robert Galaviz	Paul Martinez	8:39
2		8:13	Swilager	002	18	18	Clay	Clay Martinez	8:39
3		9:08	Southwest	211	10	10	Robert	Paul Martinez	9:22
4		9:18	Swilager	002	18	18	Clay	Clay	9:34
5		9:55	Southwest	211	10	10	Robert	Paul Martinez	10:08
6		10:10	Swilager	002	18	18	Clay	Clay	10:23
7		10:36	Southwest	211	10	10	Robert	Paul Martinez	10:50
8		10:58	Swilager	002	18	18	Clay	Clay	11:10
9		11:30	Southwest	211	10	10	Robert	Paul Martinez	11:41
10		11:50	Swilager	002	18	18	Clay	Clay	12:00
11		12:10	Southwest	211	10	10	Robert	Paul Martinez	12:30
12		1:05	Swilager	002	18	18	Clay	Clay	1:14
13		1:08	Southwest	211	10	10	Robert	Paul Martinez	1:16
14		1:55	Swilager	002	18	18	Clay	Clay	2:09
15		2:00	Southwest	211	10	10	Robert	Paul Martinez	2:12
16		2:47	Swilager	002	18	18	Clay	Clay	2:58
17		2:50	Southwest	211	10	10	Robert	Paul Martinez	3:00
18		3:32	Swilager	002	18	18	Clay	Clay	4:01
19		3:36	Southwest	211	60	10	Robert	Paul Martinez	4:10
20									
21									
22									
23									
24									
25									
26									
27									

262cy

VS 262cy



Industrial Ecosystems Inc.
Soil Reclamation Center
Material Tracking Sheet

Date: 7-1-11

~~NON-Exempt~~
①

COMPANY NAME: Sonder Miller

COMPANY REP. Soil Paul

ORIGIN OF MATERIAL (LOCATION): Ken Yards

PHONE #

PAYKEY/P.O.#

NOTES: Southwest/Swage

H2S GAS ☐

NON DETECT ☐

DETECT ☐

Chlorides

PH

TDS

Paint Filter Test:

☐ Passed

☐ Failed

☐ Pit ☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/1	8:00	Swage	002	18	18	Clay	Clay	8:12
2	7/1	8:01	Southwest	211	10	10	Robert	Robert	8:14
3	7/1	8:45	Swage	002	18	18	Clay	Clay	9:00
4	7/1	8:52	Southwest	211	10	10	Robert	Robert	9:02
5	7/1	9:35	Swage	002	18	18	Clay	Clay	9:48
6	7/1	9:35	Southwest	211	10	10	Robert	Robert	9:50
7	7/1	10:28	Swage	002	18	18	Clay	Clay	10:47
8	7/1	10:30	Southwest	211	10	10	Robert	Robert	11:33
9	7/1	11:20	Swage	002	18	18	Clay	Clay	11:30
10	7/1	11:20	Southwest	211	10	10	Robert	Robert	11:40
11	7/1	1:25	Swage	002	18	18	Clay	Clay	1:30
12	7/1	1:26	Southwest	211	10	10	Robert	Robert	1:30
13	7/1	2:12	Swage	002	18	18	Clay	Clay	2:22
14	7/1	2:14	Southwest	211	10	10	Robert	Robert	2:25
15	7/1	3:00	Swage	002	18	18	Clay	Clay	3:17
16	7/1	3:05	Southwest	211	10	10	Robert	Robert	3:20
17	7/1	3:58	Swage	002	18	18	Clay	Clay	
18	7/1	3:58	Southwest	211	10	10	Robert	Robert	
19									
20									
21									
22									
23									
24									
25									
26									

252 CM

252 VS



Industrial Ecosystems Inc
Soil Reclamation Center
Material Tracking Sheet

Date: 7-5-11

5

COMPANY NAME: Souder Miller

ORIGIN OF MATERIAL(LOCATION): Key yard

NOTES: Southwest/Swagger

COMPANY REP.

PHONE #

PAYKEY/P.O#

~~Souder Miller~~

H2S GAS

☐

NON DETECT

☐

DETECT

Chlorides

PH

TDS

Paint Filter Test:

☐ Passed

☐ Failed

☐ Pit

☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7-5	8:25	Swagger	002	18	18	Clay	Clay	8:38
2		8:26	Southwest	211	10	10	Robert	Robert	8:41
3		9:11	Swagger	002	18	18	Clay	Clay	9:22
4		9:11	Southwest	211	10	10	Robert	Robert	9:24
5		10:00	Swagger	002	18	18	Clay	Clay	10:11
6		10:00	Southwest	211	10	10	Robert	Robert	10:14
7		10:50	Swagger	002	18	18	Clay	Clay	11:00
8		10:50	Southwest	211	10	10	Robert	Robert	11:05
9		11:35	Swagger	002	18	18	Clay	Clay	11:45
10		11:37	Southwest	211	10	10	Robert	Robert	11:58
11		11:55	Southwest	AF4	10	10	Henry	Henry	12:10
12		12:25	Swagger	002	18	18	Clay	Clay	12:40
13		12:30	Southwest	211	10	10	Robert	Robert	12:45
14		12:41	Southwest	AF4	10	10	Henry	Henry	12:58
15		1:18	Swagger	002	18	18	Clay	Clay	1:28
16		1:20	Southwest	211	10	10	Robert	Robert	1:30
17		1:25	Southwest	AF4	10	10	Henry	Henry	1:39
18		2:08	Swagger	002	18	18	Clay	Clay	2:18
19		2:12	Southwest	211	10	10	Robert	Robert	2:20
20		2:16	Southwest	AF4	10	10	Henry	Henry	2:25
21		3:00	Swagger	002	18	18	Clay	Clay	3:20
22		3:01	Southwest	211	10	10	Robert	Robert	3:28
23		3:10	Southwest	AF4	10	10	Henry	Henry	3:25
24		4:00	Swagger	002	18	18	Clay	Clay	4:20
25		4:05	SW	211	10	10	Robert	Robert	4:25
		4:10	SW	AF4	10	—	Henry	Henry	4:36

340

330
VS



Industrial Ecosystems Inc
Soil Reclamation Center
Material Tracking Sheet

Date: 7-6-11

(6)

COMPANY NAME: Sonder Miller

COMPANY REP. NON-EMER PT

ORIGIN OF MATERIAL (LOCATION): Key Yards

PHONE # _____

PAYKEY/P.O.# _____

NOTES: Southwest / Sweazee

H2S GAS ☐ NON DETECT ☐ DETECT Soil
____ Chlorides _____ PH _____ TDS

Paint Filter Test: ☐ Passed ☐ Failed ☐ Pit ☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/6	8:12	Sweazee	002	18	18	Clay	Clay	8:16
2	7/6	8:12	Southwest	211	10	10	Robert	Robert	8:18
3		8:18	Sweazee	001	12	12	GARY WILSON	GARY	8:35
4		9:05	Sweazee	002	18	18	CLAY SWANSON	Clay	9:15
5		9:05	Southwest	211	10	10	Robert	Robert	9:15
6		9:08	Sweazee	001	12	12	GARY	GARY	9:18
7		9:55	Sweazee	002	18	18	Clay	Clay	10:03
8		9:55	Southwest	211	10	10	Robert	Robert	10:05
9		10:00	Sweazee	001	12	12	GARY	GARY	10:08
10		11:08	Sweazee	002	18	18	Clay	Clay	11:15
11		11:08	Southwest	211	10	10	Robert	Robert	11:20
12		11:12	Sweazee	001	12	12	GARY	GARY	11:25
13		11:55	Sweazee	002	18	18	Clay	Clay	12:06
14		11:58	Southwest	211	10	10	Robert	Robert	12:12
15		12:01	Sweazee	001	12	12	GARY	GARY	12:16
16		1:10	Sweazee	002	18	18	Clay	Clay	1:21
17		1:12	Southwest	211	10	10	Robert	Robert	1:24
18		1:16	Sweazee	001	12	12	GARY	GARY	1:27
19		1:58	Sweazee	002	18	18	Clay	Clay	10:10
20		1:58	Southwest	211	10	10	Robert	Robert	10:12
21		2:13	Sweazee	001	12	12	GARY	GARY	10:13
22		2:50	Sweazee	002	18	18	Clay	Clay	3:05
23		2:50	SW	211	10	10	Robert	Robert	3:07
24		2:56	Sweazee	001	12	12	GARY	GARY	3:10
25		3:42	Sweazee	002	18	18	Clay	Clay	3:20
26		3:45	SW	211	10	10	Robert	Robert	3:55
27		3:50	Sweazee	001	12	12	GARY	GARY	4:00

3600 CY

3600 VS



Industrial Ecosystems Inc
Soil Reclamation Center
Material Tracking Sheet

Date: 7-7-11 PS1

COMPANY NAME: Sander Miller

COMPANY REP. NON-Exempt

ORIGIN OF MATERIAL (LOCATION): Key yard

PHONE # _____
PAYKEY/P.O.# Soil

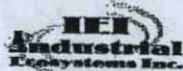
NOTES: Southwest / Sweazea

H2S GAS ☐ NON DETECT ☐ DETECT
____ Chlorides _____ PH _____ TDS

Paint Filter Test: ☐ Passed ☐ Failed

☐ Pit ☐ Tanks

Date	Time	Transported by	Truck#	Yards	Remarks	Driver's Name (Print)	Driver's Signature	Time Out
7/7	8:00	Sweazea	002	18	VS	Clay	Clay	8:00
	8:00	Southwest	211	10		Rodent	Rodent	8:08
	8:08	Hartman	75	18		Roger L Hartman	R. Hartman	8:15
	8:42	Sweazea	002	18		Clay	Clay	8:47
	8:42	Southwest	211	10		Robert	Robert	8:47
	8:47	Hartman	75	18		Rosen	Rosen	8:55
	9:20	Southwest	211	10		Robert	Robert	9:24
	9:26	Sweazea	002	18		Clay	Clay	9:31
	9:33	Hartman	75	18		Rosen	Rosen	9:37
	9:55	Southwest	211	10		Robert	Robert	10:00
	10:12	Sweazea	002	18		Clay	Clay	10:20
	10:19	Hartman	75	18		Rodent	Rodent	10:25
	10:30	Southwest	211	10		Robert	Robert	10:27
	10:55	Sweazea	002	18		Clay	Clay	10:55
	11:09	Hartman	75	18		Rosen	Rosen	11:13
	11:20	Southwest	211	10		Robert	Robert	11:20
	11:26	Sweazea	002	18		Clay	Clay	11:42
	11:45	Hartman	75	18		Rosen	Rosen	11:55
	11:52	Southwest	211	10		Robert	Robert	11:55
	12:40	Southwest	211	10		Robert	Robert	12:54
	1:27	Southwest	211	10		Robert	Robert	1:26
	1:30	Sweazea	002	18		Clay	Clay	2:00
	1:31	Hartman	75	18		Rodent	Rodent	2:00
	2:05	SW	211	10		Robert	Robert	2:05
	2:09	Sweazea	002	18		Clay	Clay	2:11
	2:14	Hartman	75	18		Rodent	Rodent	2:19
	2:35	SW	211	10		Robert	Robert	



Industrial Ecosystems Inc.
Soil Reclamation Center
Material Tracking Sheet

Date: 7-7-11 pg 2

COMPANY NAME: Sonder Miller

ORIGIN OF MATERIAL(LOCATION): Key yard

NOTES: SW / Sweazea

COMPANY REP. Now-EXEMPT
PHONE # _____
PAYKEY/P.O# _____

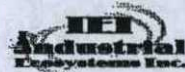
H2S GAS ☐ NON DETECT ☒ DETECT
____ Chlorides _____ PH _____ TDS

Paint Filter Test: ☐ Passed ☐ Failed

☐ Pit ☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/7	2:45	Sweazea	002	18		Clay	Clay	2:50
2	7/7	2:54	Hartman	75	18		Robert	Robert	2:55
3	7/7	3:10	SW	211	10		Robert	Robert	2:20
4	7/7	3:30	Sweazea	002	18		Clay	Clay	3:32
5		3:37	Hartman	75	18		Roger	Roger	3:41
6		3:40	SW	211	10		Robert	Robert	3:50
7		4:10	Sweazea	002	18		Clay	Clay	4:17
8		4:19	SW	211	10		Robert	Robert	4:24
9		4:24	Hartman	75	18		Roger	Roger	4:30
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									

536 ✓



Industrial Ecosystems Inc.
Soil Reclamation Center
Material Tracking Sheet

Date: 7-8-11

COMPANY NAME:

Souder Miller

COMPANY REP.

NON-EXEMPT

ORIGIN OF MATERIAL(LOCATION):

Key Yard

PHONE #

PAYKEY/P.O.#

NOTES:

Sw/Sweazea

Soil

H2S GAS



NON DETECT



DETECT

Chlorides

PH

TDS

Paint Filter Test:

☐ Passed

☐ Failed

☐ Pit

☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/8	8:05	SW	211	10		Robert	<i>Robert</i>	8:10
2		8:10	Sweazea	002	18		Clay	<i>Clay</i>	8:15
3		8:16	Hartman	75	18		Roger	<i>Roger</i>	8:20
4		8:45	Sweazea	002	18		Clay	<i>Clay</i>	8:51
5		8:45	SW	211	10		Robert	<i>Robert</i>	8:50
6		8:53	Hartman	75	18		Roger	<i>Roger</i>	9:10
7		9:26	SW	211	10		Robert	<i>Robert</i>	9:30
8		9:36	Sweazea	002	18		Clay	<i>Clay</i>	9:40
9		9:40	Hartman	75	18		Roger	<i>Roger</i>	9:46
10		10:02	SW	211	10		Robert	<i>Robert</i>	10:10
11		10:35	SW	211	10		Robert	<i>Robert</i>	10:40
12		11:12	SW	211	10		Robert	<i>Robert</i>	11:20
13		11:15	Sweazea	002	18		Clay	<i>Clay</i>	11:20
14		11:20	Hartman	75	18		Roger	<i>Roger</i>	11:20
15		1:08	SW	211	10		Robert	<i>Robert</i>	1:14
16		1:42	SW	211	10		Robert	<i>Robert</i>	1:45
17		2:10	Sweazea	002	18		Clay	<i>Clay</i>	2:14
18		2:12	SW	211	10		Robert	<i>Robert</i>	2:16
19		2:15	Hartman	75	18		Roger	<i>Roger</i>	2:20
20		2:45	SW	211	10		Robert	<i>Robert</i>	2:55
21		3:20	SW	211	10		Robert	<i>Robert</i>	3:24
22		4:00	SW	211	10		Robert	<i>Robert</i>	4:05
23		4:00	Hartman	75	18		Roger	<i>Roger</i>	
24									
25									
26									
27									

3/84



Industrial Ecosystems Inc
Soil Reclamation Center
Material Tracking Sheet

Date. 7/11/11

COMPANY NAME:

Souder Miller

COMPANY REP.

Non-Exempt - Paul Martinez

ORIGIN OF MATERIAL (LOCATION):

Key Yard

NOTES:

SW / Sweazea / Hartman
211 002 75
Robert clay Roger

H2S GAS



NON DETECT



DETECT

Chlorides

PH

TDS

Paint Filter Test:

☐ Passed

☐ Failed

☐ Pit

☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/11	8:10	SW	211	10		Robert	Robert	8:20
2		8:21	Sweazea	002	18		Clay	Clay	8:30
3		8:27	Hartman	75	18		Roger	Roger	8:30
4		8:45	SW	211	10		Robert	Robert	8:55
5		9:20	SW	211	10		Robert	Robert	9:25
6		9:50	Sweazea	002	18		Clay	Clay	9:55
7		9:55	SW	211	10		Robert	Robert	10:00
8		10:05	Hartman	75	18		Roger	Roger	10:10
9		10:21	SW	211	10		Robert	Robert	10:31
10		10:55	Sweazea	002	18		Clay	Clay	11:05
11		11:00	SW	211	10		Robert	Robert	11:07
12		11:17	Hartman	75	18		Roger	Roger	11:22
13		11:35	SW	211	10		Robert	Robert	11:40
14		1:21	Sweazea	002	18		Clay	Clay	1:28
15		1:21	Hartman	75	18		Roger	Roger	1:28
16		1:21	SW	211	10		Robert	Robert	1:38
17		2:00	SW	211	10		Robert	Robert	2:07
18		2:25	Sweazea	002	18		Clay	Clay	2:24
19		2:27	Hartman	75	18		Roger	Roger	2:31
20		2:31	SW	211	10		Robert	Robert	2:40
21		3:02	SW	211	10		Robert	Robert	3:07
22		3:26	Sweazea	002	18		Clay	Clay	3:31
23		3:31	Hartman	75	18		Roger	Roger	3:38
24		3:37	SW	211	10		Robert	Robert	3:41
25		4:15	SW	211	10		Robert	Robert	4:20
26									
27									

346cy



Industrial Ecosystems Inc.
Soil Reclamation Center
Material Tracking Sheet

Date: 07/12/11

COMPANY NAME: Souder Miller

ORIGIN OF MATERIAL (LOCATION): Key

NOTES: SW / Sweazee / Hartman
211 / 002 / 75
Robert / Clay / Roger

COMPANY REP. Non-Exempt Paul
PHONE # _____
PAYKEY/P.O.# _____
Martinez

H2S GAS ☐ NON DETECT ☒ DETECT
____ Chlorides _____ PH _____ TDS _____
Paint Filter Test: ☐ Passed ☐ Failed ☐ Pit ☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	07/12	8:15	Sweazee	002	16		Clay	<u>Clay</u>	8:24
2		8:19	Hartman	75	16		Roger	<u>Roger</u>	8:25
3		8:24	SW	211	10		Robert	<u>Robert</u>	8:26
4		9:03	SW	211	10		Robert	<u>Robert</u>	9:08
5		9:36	SW	211	10		Robert	<u>Robert</u>	9:42
6		10:14	SW	211	10		Robert	<u>Robert</u>	10:18
7		10:46	SW	211	10		Robert	<u>Robert</u>	10:51
8		11:20	SW	211	10		Robert	<u>Robert</u>	11:25
9		1:15	SW	211	10		Robert	<u>Robert</u>	1:20
10		1:50	SW	211	10		Robert	<u>Robert</u>	1:55
11		2:23	SW	211	10		Robert	<u>Robert</u>	2:30
12		3:55	SW	211	10		Robert	<u>Robert</u>	3:02
13		3:31	SW	211	10		Robert	<u>Robert</u>	3:37
14		4:10	SW	211	10		Robert	<u>Robert</u>	4:16
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									

152cy



Industrial Ecosystems Inc
Soil Reclamation Center
Material Tracking Sheet

Date 7-13-11

COMPANY NAME: Snyder Miller

COMPANY REP. Non-Exempt

ORIGIN OF MATERIAL(LOCATION): Kear

PHONE # _____

PAYKEY/P.O.# _____

NOTES: _____

cont. soil

H2S GAS ☐
 _____ Chlorides

NON-DETECT

☐ DETECT
 _____ PH

_____ TDS

Paint Filter Test:

☐ Passed ☐ Failed

☐ Pit ☐ Tanks

	Date	Time	Transported by	Truck#	Yards	Barrels	Driver's Name (Print)	Driver's Signature	Time Out
1	7/13	7:55	SW	211	10		Robert	<i>Robert</i>	8:05
2		8:30	SW	211	10		Robert	<i>Robert</i>	8:37
3		9:05	SW	211	10		Robert	<i>Robert</i>	9:00
4		9:40	SW	211	10		Robert	<i>Robert</i>	9:50
5		10:20	SW	211	10		Robert	<i>Robert</i>	10:28
6		10:55	SW	211	10		Robert	<i>Robert</i>	11:00
7		11:31	SW	211	10		Robert	<i>Robert</i>	11:37
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									

70.00