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REPORTS

YEAR:
2008

INTERA Incorporated
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Suite 100
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Telephone: 505 246 1600
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June 30, 2007

Mr. Jim Griswold
Hydrologist
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87505

RE: Phase II Remediation, Millard Deck Estate Pit, Lea County, New Mexico

Dear Mr. Griswold:

INTERA Incorporated has completed Phase II remediation services at the Millard Deck Estate Pit and a report detailing these activities has been developed. One hard copy and one electronic copy of this report are attached.

INTERA appreciates the opportunity to work with the New Mexico Oil Conservation Division. If you have any questions, please do not hesitate to contact us at (505) 246-1600.

Sincerely,
INTERA Inc.

Gary Desselle
Staff Scientist

Joe Galemore, P.G.
Project Manager

Enclosures

Report on Phase II Remediation Activities at the Millard Deck Estate Pit, Lea County, New Mexico

Prepared for:

New Mexico Energy, Minerals,
& Natural Resources Department
Oil Conservation Division

Prepared by:

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6000 Uptown Boulevard NE
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June 30, 2008

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CRI	Controlled Resources, Incorporated of Hobbs, New Mexico
EPA	United States Environmental Protection Agency
INTERA	INTERA, Inc.
mg/kg	milligrams per kilogram
OCD	New Mexico Oil Conservation Division
PID	photoionization detector
ppm	parts per million
PQL	practical quantitation limit
Site	Millard Deck Estate Pit
Sundance	Sundance Services, Inc.
TPH	total petroleum hydrocarbons
UWB	Underground Water Basin
VOC	volatile organic compound

1.0 INTRODUCTION

Intera, Inc. (INTERA) was contracted by the State of New Mexico Oil Conservation Division (OCD) to perform remediation services at the Millard Deck Estate Pit (Site) located approximately 25 miles southwest of Hobbs, New Mexico. The work was authorized by the OCD through purchase order number 52100-0000012848 dated May 20, 2008 and was a continuation of work completed in June 2007. Site activities were completed in general accordance with INTERA's Work Plan dated May 19, 2008 (INTERA, 2008) and State of New Mexico General Services Department Price Agreement number 61-805-09-18553.

The Work Plan included the removal of 1,000 cubic yards of petroleum-contaminated soils, backfilling with clean soil and compacting to grade and reseeding the excavated area. Deviations to the Work Plan included an increase in the amount of contaminated soil removed and not performing chloride and PetroFLAG analyses in the field. Due to the sensitivity of some field tests, the decision was made to conduct the chloride and PetroFLAG field sampling at an off-site location. These deviations are discussed further below.

Prior to field work, INTERA created a Health and Safety Plan for field activities, which was signed and acknowledged by all on-Site personnel. Advanced Environmental Solutions of Belen, New Mexico was subcontracted for excavation, backfill, disposal related services, and reseeding operations at the Site. INTERA contacted One-Call (New Mexico underground utility locating service, ticket number 2008232189) prior to the start of excavation services in order for utility companies to map the buried pipelines and electrical hazards on the Site.

1.1. Summary of Phase I Activities

In June 2007, INTERA mobilized to the Site and removed surface petroleum hydrocarbon-contaminated water and subsurface petroleum-contaminated soils. On June 18, 2007, a 4,000-gallon capacity vacuum truck removed 55 barrels (1,843 gallons) of petroleum-contaminated water from the pit. The waste was hauled to the Controlled Resources, Incorporated (CRI) Halfway facility located in Halfway, New Mexico, about 30 miles west-southwest of Hobbs along New Mexico highway 62/180 and between Hobbs and Carlsbad, New Mexico. In addition, 320 cubic yards of petroleum-contaminated soil was removed and disposed of at CRI. Contaminated soil (as determined by visual evidence, olfactory observation, and laboratory data) was still present after the 320 cubic yards of material were removed. Soil samples obtained from the bottom of the excavation at approximately 20 feet below ground surface (bgs) were found to contain diesel range organics, gasoline range organics, and chloride at levels as high as 18,000 milligrams per kilogram (mg/kg), 370 mg/kg, and 2,400 mg/kg, respectively. Furthermore, the contamination appeared to extend well beyond the excavated limits. Due to time and budget constraints, excavation activities were terminated. Prior to backfilling the excavation, a layer of Visqueen® plastic sheeting was placed along the bottom and sides of the pit in order to keep

contaminated material from coming in contact with clean fill material and to mark the extent of the excavation in the event remediation continued. Once backfilling was complete, approximately 100 cubic yards of backfill material was stockpiled on Site.

1.2. Site Description

The Site is located in Lea County in southeast New Mexico, approximately 25 miles southwest of Hobbs. It lies within the Llano Estacado ("Palisaded Plain"), a feature that is bound to the east by the Pecos River, to the west by the Permian Plains of Texas, to the north by the Canadian River, and to the south by Interstate 20 ("Llano Estacado"). The Site is located within Township 21 South, Range 35 East, Section 33; the latitude of the Site is 32 degrees, 26 minutes, 25.20 seconds North, and the longitude is 103 degrees 22 minutes, 42.30 seconds West and is found on the San Simon Ranch Quadrangle Topographic Map (Figures 1 and 2). The elevation at the Site is approximately 3,600 feet above mean sea level.

1.3. Hydrogeology

The Site is located within the Ogallala Formation, which is characterized by sand, silt, clay, gravel, and caliche. The thickness of this formation is up to 350 feet, and is further described as follows:

> *"Sand, fine- to coarse-grained quartz, silty in part, cemented locally by calcite and silica, locally crossbedded, various shades of gray and red. Minor silt and clay with caliche nodules, massive, white, gray, olive green, maroon. Gravel, not everywhere present, composed of pebbles and cobbles of quartz, quartzite, minor chert, igneous rock, metamorphic rock, limestone, and abraded Gryphaea in intraformational channel deposits and in basal conglomerate. Caliche, sandy, pisolitic, forms caprock, may include some caliche of Pleistocene age. Where stippled pattern shown, overlain sporadically by 14 to 30 inches of brownish gray to brown to reddish brown, calcareous sand and silt of pre-Illinoian age..."* (Leedshill-Herkenhoff, Inc., et al. 2000).

Ground water within Lea County exists within five separate basins. From north to south, these include the Lea County Underground Water Basin (UWB), the Capitan UWB, and Carlsbad UWB, the Jal UWB, and the Roswell UWB. The Site is located within the Capitan UWB, which occurs within dolomite and limestone strata deposited in an ancient reef. The ground water quality in this basin is very poor. Although the cities of Jal and Eunice are located within the basin, they utilize the Lea County UWB and the Jal UWB, respectively. As of 1998, depth to water at the Site was estimated to be 40 feet bgs and the ground water flow direction was generally to the southeast (Leedshill-Herkenhoff, Inc., et al. 2000).

2.0 FIELD ACTIVITIES

Field work commenced on June 10, 2008 and ended on June 13, 2008. Field work consisted of excavating the clean backfill used to fill the June 2007 excavation, excavating contaminated soil, screening Site soils using photoionization detector (PID) headspace screening methods and chloride and TPH test kits, sampling Site soils for laboratory analysis, backfilling to grade, and reseeding the excavated area. The following sections detail these field activities.

2.1. Excavation

The first step in the excavation process consisted of the removal of the material used to backfill the 2007 excavation. This excavation was performed with a Caterpillar® 320C track-hoe and took place from June 10 to June 13, 2008. The excavation commenced at the approximate center of the June 2007 excavation and the clean soil overburden was removed to the point where the Visqueen® sheeting was visible and/or to where soil contamination was evident through visual or olfactory evidence. The 320 cubic yards of clean overburden was stockpiled for backfilling operations. After the clean overburden was removed, an additional 1,400 cubic yards were excavated. Waste Manifests are provided in Appendix A.

Once the 1,400 cubic yards were removed, resulting pit dimensions were approximately 60 feet by 54 feet, and by 25 feet deep bgs (Figures 4 and 5). Contaminated soil was still present in the bottom of the excavation and along the excavation walls (visual/olfactory observation) after removal of the 1,400 cubic yards.

"Belly-dump" type haulers with a capacity of approximately 20 cubic yards were utilized to remove contaminated soil from the Site to Sundance Services, Inc. (Sundance) and to transport clean fill material from Sundance to the Site. The Sundance facility is located approximately 24 miles east of the Site, and approximately 3 miles east of Eunice, New Mexico. The round-trip travel time was approximately two hours, and increased to two-and-a-half hours if the trucks were also obtaining clean backfill material to deliver to the Site. A plan view of the excavation is provided Figure 4, cross-sectional diagrams of the excavation are provided in Figure 5, and a complete photographic log of field activities at the Site is provided in Appendix B. A copy of the field notes for Site activities is included in Appendix C.

2.2. Soil Screening and Soil Sampling Methods

Screening methods were used to guide decisions on where to focus contaminated soil removal activities. While excavating soils, visual and olfactory evidence of contamination was noted and documented in the field book (Appendix B). More quantitative soil screening was performed by collecting soil samples and analyzing the sample in the field for the presence of volatile organic compounds (VOCs) using a PID and the heated headspace method outlined in the OCD "Guidelines for Remediation of Leaks, Spills, and Releases" (OCD, 1993). Data collected from

the combined screening methods were used to determine where the highest concentrations of contamination existed and ultimately to determine where removal activities should proceed so that contaminant mass removal could be maximized. Once the limits of the excavation were reached, soil samples were collected for in-field chloride and total petroleum hydrocarbons (TPH) analysis and samples were collected for laboratory analysis. Details of the VOC, chloride, and TPH field testing methods followed by a summary of the method used to collect soil samples for laboratory analysis is provided in the remainder of this subsection.

Grab soil samples for VOC screening were collected by gloved hand from the track hoe in order to avoid entering the excavation. The approximate depth from which the track-hoe obtained the grab soil sample was noted and recorded in the field book. VOCs were analyzed using the PID (10.6 eV lamp) and following the OCD "Guidelines for Remediation of Leaks, Spills, and Releases" (OCD, 1993). Once the PID result was obtained for each soil sample, the glass jars used for sample collection and analysis were decontaminated using Liquinox® soap and distilled water. Field VOC results are shown in Table 1.

Soil samples collected for chloride and TPH analysis were double bagged using Ziplock® bags and were placed in the sample cooler for analysis off-site. An attempt was made to do the analysis in the field but high winds, dust, and the sensitivity of the instruments led to the decision to analyze the samples for chloride and TPH off-site. Chlorides were tested for using a Hach® Quantab® field kit; TPH was tested using the PetroFLAG system. The chloride tests were performed without incident and the results are tabulated in Table 2. The TPH tests were not as successful.

As specified in the work plan, soils samples were to be tested in the field for TPH using PetroFLAG. Four samples were collected for analysis and were prepped in the hotel room following the directions provided by Dexsil, the manufacturer of the PetroFLAG kit. Calibration and blank samples were prepared and tested as specified; however, when the samples were tested for TPH using the PetroFLAG meter, an error message was returned. As indicated in the user manual, the error message indicates that the concentration of TPH was over range, which in the case of the reagents contained in the kit is 3,000 parts per million (ppm) TPH. Additional testing of diluted samples could not be performed because holding times had been exceeded and additional reagent was not available. Results of the PetroFLAG TPH analysis are provided in Table 2.

In addition to the field analysis for chloride and for VOCs, four soil samples were collected for laboratory analysis from the bottom of the pit and two soil samples were obtained from each of the four walls of the excavation. In addition, two more soil samples were collected from the bottom of the pit as a duplicate sample; the duplicate sample was labeled with a false location and false time. Fourteen soil samples were therefore collected in total and were analyzed for

TPH using United States Environmental Protection Agency (EPA) Method 418.1; for chloride using EPA Method 9056A; and for benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021B. Laboratory results are shown in Table 2 and Figure 6. The laboratory report is provided in Appendix D and soil sample locations are shown in Figure 4.

2.3. Backfilling

Backfilling activities took place on June 13, 2008. The backfilling was performed by a track-hoe and a front-end loader, and the backfill material was emplaced in two-foot lifts. In order to fill the deepest area of the excavation, a ramp was created with the track-hoe and fill was placed in the area. Once placed, the track-hoe was used to roll-over this area to achieve compaction. This method was performed within the majority of the excavation except for the area from which the original ramp was created. However, the process of moving the track-hoe along this ramp during the initial fill activities did cause appreciable compaction to occur in this area. As backfill operations continued, both the front-end loader and track-hoe were utilized to compact the fill material to grade (Appendix B, Photograph No. 11).

Backfill material was composed of very fine-grained sand that was transported from the Sundance facility. An estimated total of 1,200 cubic yards of clean fill was deposited in the excavation during backfilling activities. This quantity is based on estimates of a total of 780 cubic yards of clean fill that was delivered to the Site; approximately 320 cubic yards of clean overburden that was removed prior to excavation of contaminated soils, and approximately 100 cubic yards of clean fill that was present at the Site prior to the start of work. The volume estimation of 100 cubic yards of clean fill remaining at the Site after work performed in June 2007 was clearly an under-estimation and may have been closer to 200 to 300 cubic yards of clean fill. This revised quantity is based upon viewing 20 cubic yards of clean fill material delivered to the Site by each truck and then watching multiple 20 cubic yard deliveries be placed into a single pile by the front-end loader. Discrepancies between the fill total and total amount of contaminated soil removed are likely due to this fact, in addition to the estimation in both removal and fill operations. The composition of removed material versus that of the back fill material is also believed to have contributed to the discrepancy. The Sundance facility is not equipped with a scale, therefore fill material is estimated at this facility and removal amounts are estimated by the equipment operators. A total of 70 trucks with a 20 cubic yard capacity were fully loaded with contaminated soil, and a total of 39 trucks delivered clean fill; discrepancies in soil volumes in each load would therefore have ample opportunity to compound over time. Contaminated soil expanded during the process of being loaded into each truck, while delivered material was more compacted.

2.4. Reseeding

Reseeding of the excavated area and other areas de-vegetated during the remediation process, which totaled approximately 1 acre, took place on June 25, 2008. Reseeding consisted of first disking the de-vegetated area to a depth of approximately 6 inches. This step was followed by spraying a seed, water, and fertilizer slurry onto the disked area, which was then covered with a wood fiber mulch and tackifier. Approximately 20 pounds of the following seed mix were used:

- Sideoats Grama
- Sand Dropseed
- Little Bluestem
- Indian Grass
- Switchgrass

Seed and mulch specifications are provided in Appendix E and photos of the reseeding operation are included in Appendix B. A few hundred gallons of water were then sprayed onto the reseeded area on the following day.

3.0 ANALYTICAL RESULTS

Soil samples were collected from a total of 20 locations prior to the end of excavation and were analyzed in the field for VOCs. Field VOC screening results obtained during excavation are discussed in Section 3.1 and VOC results are displayed in Table 1.

Once the limits of the excavation were reached, confirmation soil samples were collected from four locations for in-field TPH analysis using PetroFLAG and for in-field chlorides analysis using a Hach® field kit. Confirmation soil sample results of field TPH analysis and field chloride analysis are discussed in Section 3.2 and are shown in Table 2. 14 grab soil samples were collected for laboratory analyses of BTEX, TPH, and chlorides (four of the 14 grab soil samples collected for laboratory analysis were additionally analyzed for field TPH using PetroFLAG and for field chlorides analysis using the Hach® field kit). The results of the laboratory analyses are discussed in Section 3.2 and are displayed in Table 2 and Figure 6.

3.1. Excavation Sample Results

For the 20 grab soil samples collected during the excavation and analyzed using the PID, VOC concentrations ranged from 1.3 ppm in the sample obtained from the south wall on June 12, 2008 at a depth of 4 feet bgs to 1,053 ppm in the sample obtained from the bottom of the pit on June 11, 2008 at a depth of 4 feet bgs. VOC results were generally higher at increasing depths along the excavation walls, and as indicated, the highest VOC result was obtained from the bottom of the pit. Based on these results, it did not appear that the extent of the contamination had been

reached in the deeper areas of the excavation walls nor at the bottom of the excavation at the point when 1,400 cubic yards of contaminated material had been removed.

3.2. Confirmation Sample Results

VOC analysis on confirmation soil samples ranged from 353 ppm in sample 1 to 904 ppm in samples 3 and 4. Chloride analysis performed with a field kit on four grab soil samples revealed concentrations ranging from 141 mg/kg in sample 3 to 480 mg/kg in sample 2. The concentration of TPH in the four grab soil samples obtained for field TPH analysis using PetroFLAG were all over the 3,000 ppm limit of the instrument for samples 1-4.

The maximum laboratory TPH concentration in soil samples obtained from the excavation walls was 25,000 mg/kg in sample 10 (as shown on the north wall at 7 feet bgs in Figure 6). The maximum TPH concentration in soil samples obtained from the bottom of the excavation was 45,000 mg/kg in sample 4 taken at 17 feet bgs. Other than the 480 mg/kg soil TPH result obtained in sample 12 (as shown on the west wall at 4 feet bgs in Figure 6), only one other TPH soil sample (sample 8) was below 17,000 mg/kg. Of those twelve samples above or equal to 17,000 mg/kg, the average TPH value was 28,250 mg/kg.

Soil samples 8, 9, 10, and 12 were all below the respective practical quantitation limits (PQLs) for BTEX. Of the VOCs, xylenes were the most commonly detected compound and were found above the PQL in ten (10) soil samples. Concentrations of xylenes ranged from 0.36 mg/kg in sample 11 to 9.9 mg/kg in sample 6. Toluene was not found above the PQL in ten of the fourteen soil samples, and of those four samples where toluene was detected above the PQL, concentrations ranged from 0.14 mg/kg in sample 5 to 0.40 mg/kg in sample 2. Similarly, ethylbenzene was only detected above the PQL in three of the fourteen soil samples and ranged from 0.36 mg/kg in sample 5 to 0.83 mg/kg in both sample 1 and sample 2. Benzene was below the PQL in all samples. The sum of each laboratory concentration for BTEX ranged from 10.21 mg/kg in sample 6 to less than 0.25 mg/kg in samples 8 and 12. Many values were below the PQL for the constituents that make up BTEX. In soil samples where one or more BTEX component was found at a concentration below the PQL, a value of zero was used in place of the PQL value in BTEX determination. When all BTEX values were below the PQL (samples 8, 9, 10, and 12), the respective PQL value was used in BTEX determination.

Duplicate soil samples were obtained from locations 3 and 4. Analysis of these soil samples revealed consistent laboratory results for all tested parameters. Conversely, chloride samples analyzed using a field kit did not compare well with laboratory results for chloride, and when compared to laboratory results, chloride was underestimated in all four soil samples analyzed using the field kit.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on work conducted at the Site, the following conclusions can be made:

- 1,400 cubic yards of petroleum contaminated soil were removed from the Site during Phase II remediation activities and 320 cubic yards of petroleum contaminated soil were removed from the Site during Phase I remediation activities.
- The excavation was backfilled and compacted with approximately 1,200 cubic yards of very fine-grained sand and the surface was reseeded.
- Soil contamination extends beyond the boundaries of the excavation. Laboratory analysis revealed TPH concentrations as high as 45,000 mg/kg remain in soil located at the bottom of the excavation and as high as 25,000 mg/kg in the excavation walls.
- A total of 13 out of 14 soil samples analyzed for chlorides using laboratory methods were below the 1,000 mg/kg cleanup standard for the Site (see discussion below). Chlorides exceeded the 1,000 mg/kg cleanup standard in sample 6, where chlorides were detected in soil at a concentration of 1,300 mg/kg.
- Duplicate soil samples revealed consistent and reliable laboratory results for all tested parameters.
- Chloride field kits did not show agreement with laboratory chloride results and tended to underestimate chloride concentrations.
- BTEX was not found in Site soils above the 50 mg/kg cleanup standard, while in four samples (3 and 4 and their duplicates) the 0.5 mg/kg PQL for benzene was above the 0.2 mg/kg cleanup standard.

Following the OCD "Guidelines for Remediation of Leaks, Spills, and Releases" (OCD, 1993) for remediation of unsaturated contaminated soils, the ranking score for the Site is 20. Ranking criteria includes the following factors.

- *Depth to ground water.* The estimated depth to water at the Site is 40 bgs; therefore, the ranking score is 20.
- *Distance from a water source or private domestic water well.* If the site to be remediated is less than 1,000 feet from a water source or less than 200 feet from a private domestic water source, the ranking score is 20, otherwise it is zero. INTERA performed a search of the Office of the State Engineer's WATERS database and concluded that there are no private domestic water wells in the area, and that there are no irrigation and production wells within 1,000 feet of the Site. The ranking score for this factor is zero.
- *Distance to a surface water body.* The nearest surface water body to the Site is more than 1,000 feet, and the ranking score for this distance is zero.

Following the OCD "*Guidelines for Remediation of Leaks, Spills, and Releases*" (OCD, 1993) for remediation of unsaturated contaminated soils, the ranking score for the Site is "20". Based on the meeting between the OCD and INTERA staff on May 9, 2008, the assessment levels for the Site are:

- TPH (EPA Method 418.1) – 100 mg/kg
- Chlorides (EPA Method 9056A or equivalent) – 250 mg/kg

The cleanup standards for the Site are:

- Benzene (EPA Method 8260B or 8021B) – 0.2 mg/kg
- BTEX (EPA Method 8260B or 8021B) – 50 mg/kg
- TPH (EPA 418.1) – 2,500 mg/kg
- Chlorides (EPA 9056A or equivalent) – 1,000 mg/kg

Based on the project findings, INTERA recommends that soil borings be advanced in all directions from the excavation in order to delineate the horizontal and vertical extent of TPH contamination at the Site. Chloride contamination was found to extend vertically from the center of the old pit but was not detected above cleanup standards on excavation walls. The extent of chloride contamination should therefore be determined vertically from the approximate center of the historic pit location. It should be noted that the areas to the north, east, and west of the Site contain an extremely hard caliche horizon to a depth of 1 to 2 feet bgs and selection of subsurface drilling equipment should bear this fact in mind. Once the extent of contamination has been defined, a feasibility study should be performed that evaluates various technologies suitable for the remediation of the remaining contamination.

5.0 REFERENCES

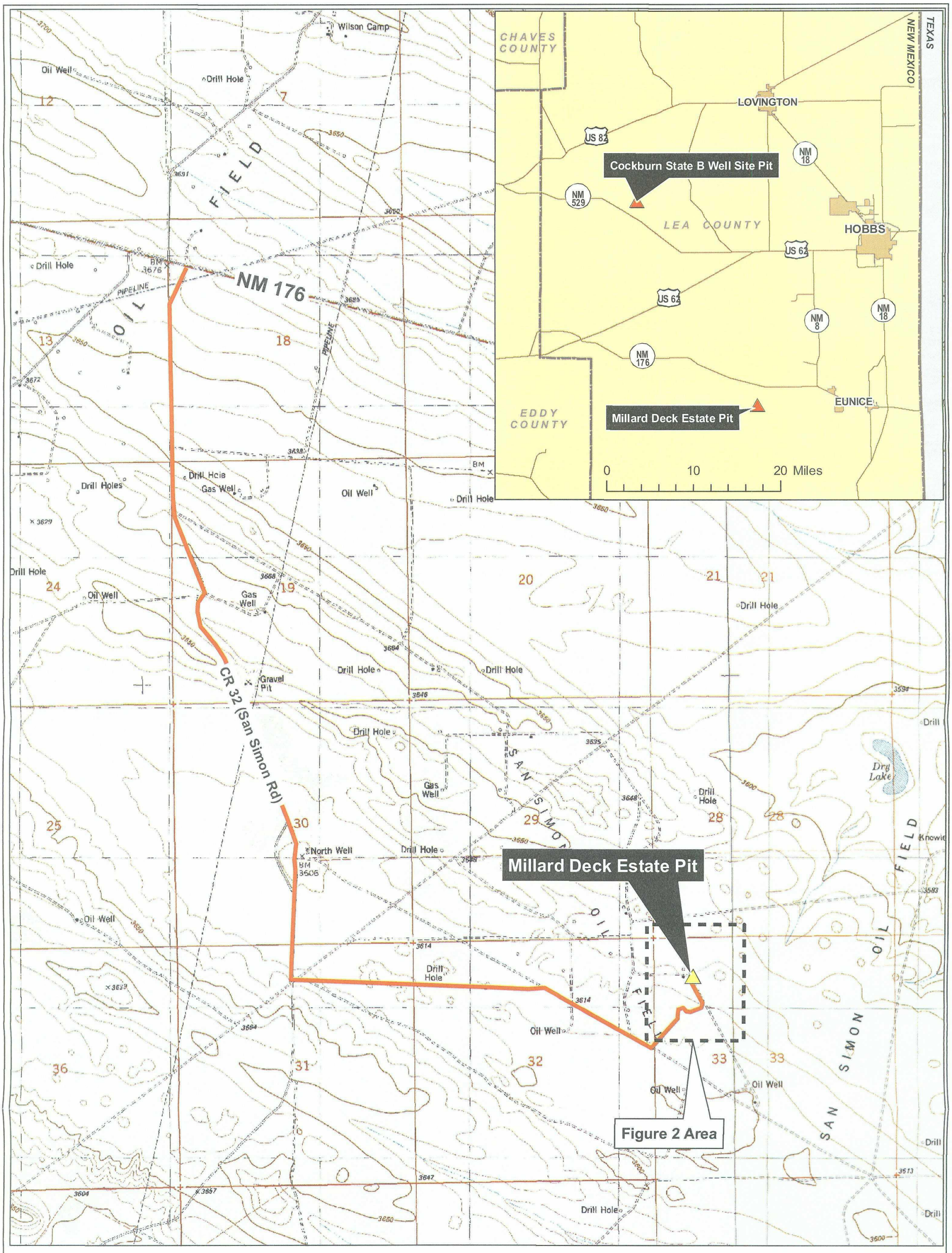
INTERA, 2008. "Scope of Work and Cost Estimate for Phase II Site Remediation." Miller [sic] Deck Estate, San Simon Area, Lea County, New Mexico. May 19, 2008.

Leedshill-Herkenhoff, Inc., John Shomaker & Associates, Inc., and Montgomery and Andrews, P.A. 2000. "Final Report, Lea County Regional Water Plan."

"Llano Estacado." <http://en.wikipedia.org/wiki/Llano_Estacado> accessed June 29, 2008.

New Mexico Oil Conservation Division (OCD). 1993. "Guidelines for Remediation of Leaks, Spills, and Releases."

Figures



N

S

0 1,000 2,000 4,000 Feet

USGS 7.5 Minute Topographic Map:
San Simon Ranch and Oil Center Quadrangles, 1984,
Contour Interval 10 Feet
Scale: 1:24,000

Location: T21S, R35E, Sec.33

Source(s): Top maps – MapTech;
administrative boundries, roads – RGIS website.

Figure 1
Project Location Map

Millard Deck Estate Pit – Lea Co., NM

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Source(s): 2004 aerial map – RGIS website.

N

S

0 150 300 600

Feet

Legend

Plugged & Abandoned Oil Well

Figure 2
Project Location – Aerial View

Millard Deck Estate Pit – Lea Co., NM

INTERA

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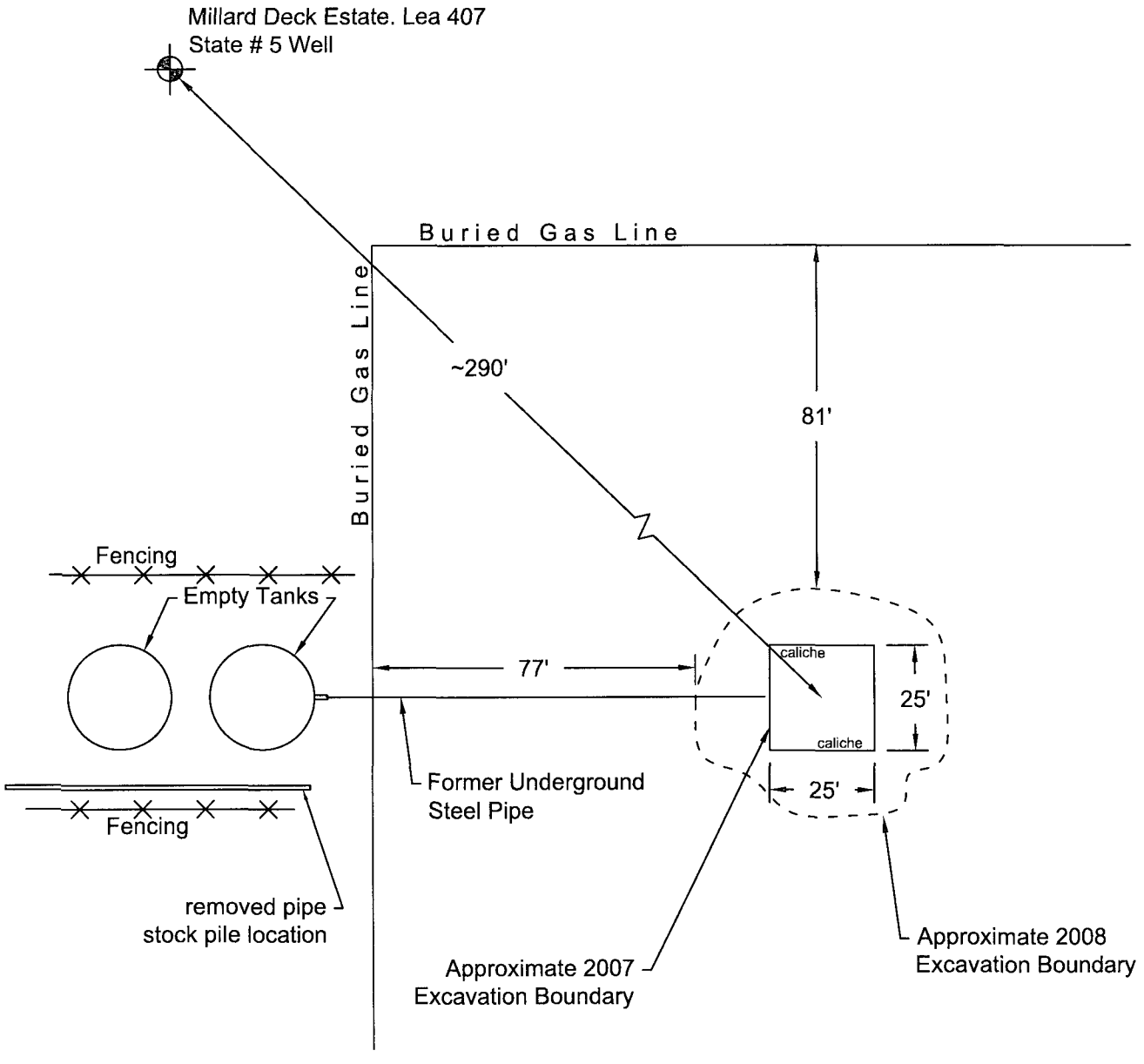

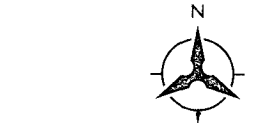

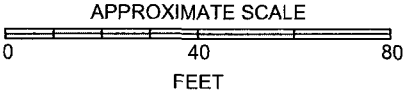

Figure 3
Site Plan

Millard Deck Estate Pit - Lea Co., NM

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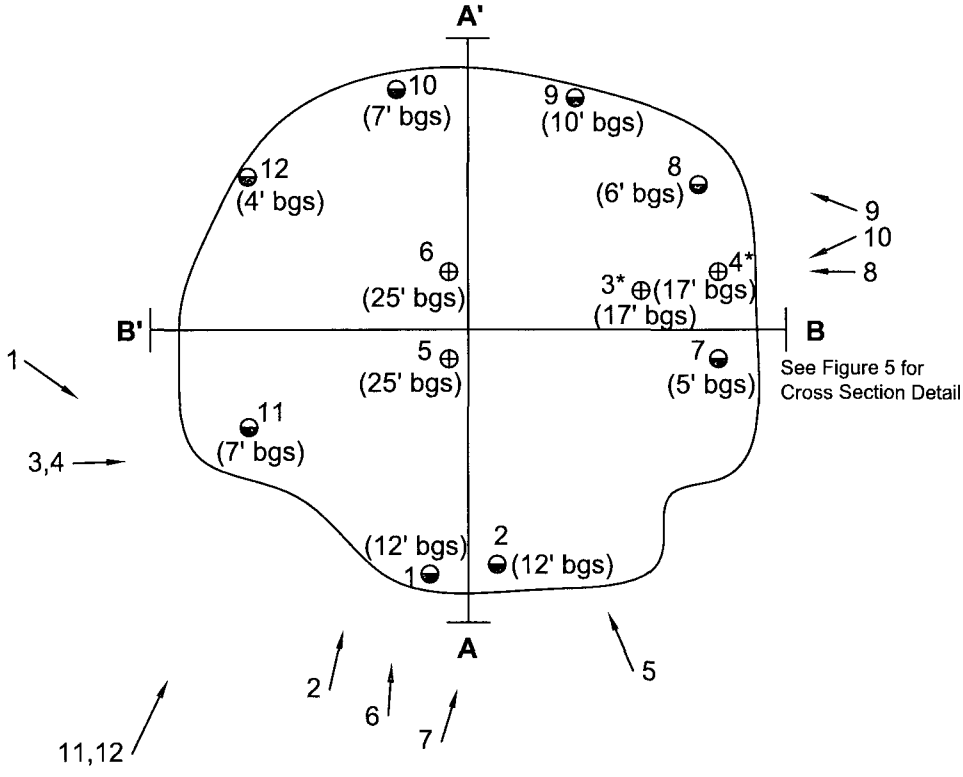


Legend

11 — Photograph ID and Direction

2 (10' bgs) — Wall Sample ID and Depth (feet)

4 (14' bgs) — Excavation Bottom Sample ID and Depth (feet)

3* — Lab Duplicate

Notes:
bgs = below ground surface
Sample Dates: June 12 and 13, 2008

N

APPROXIMATE SCALE

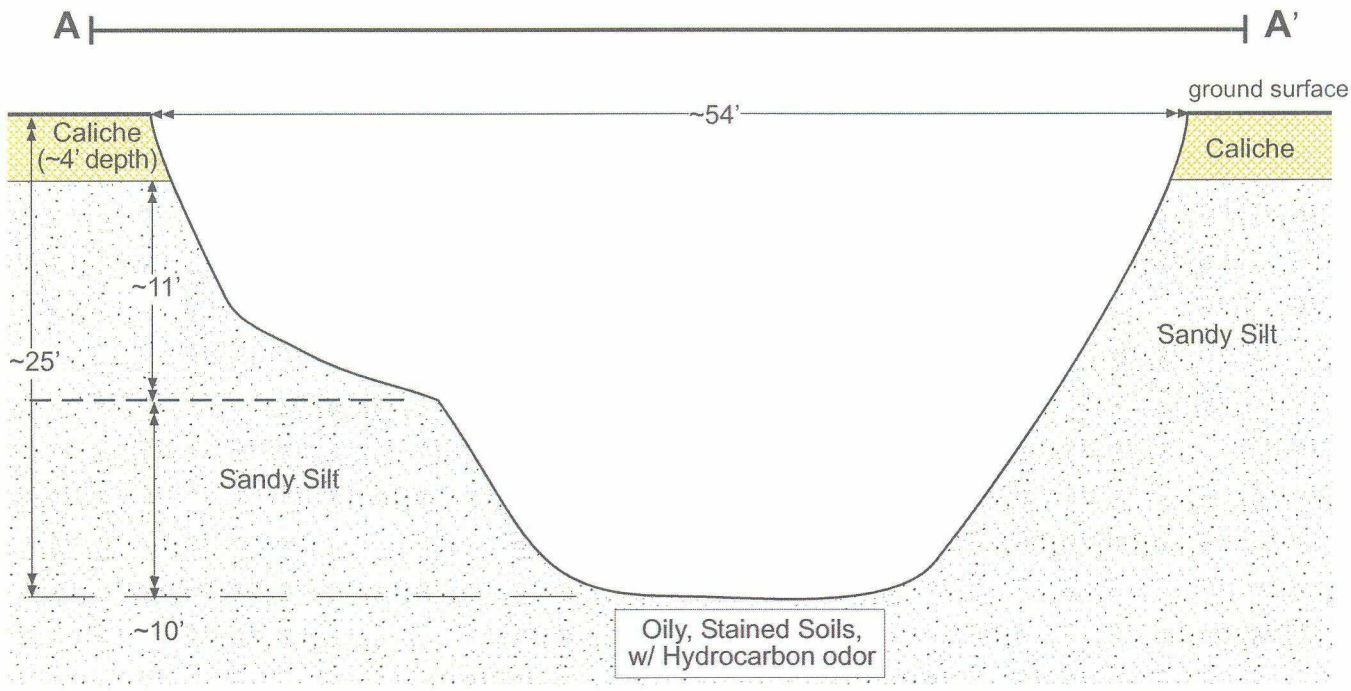
0 20 40

FEET

Figure 4
Excavation Detail / Sample & Photograph Locations

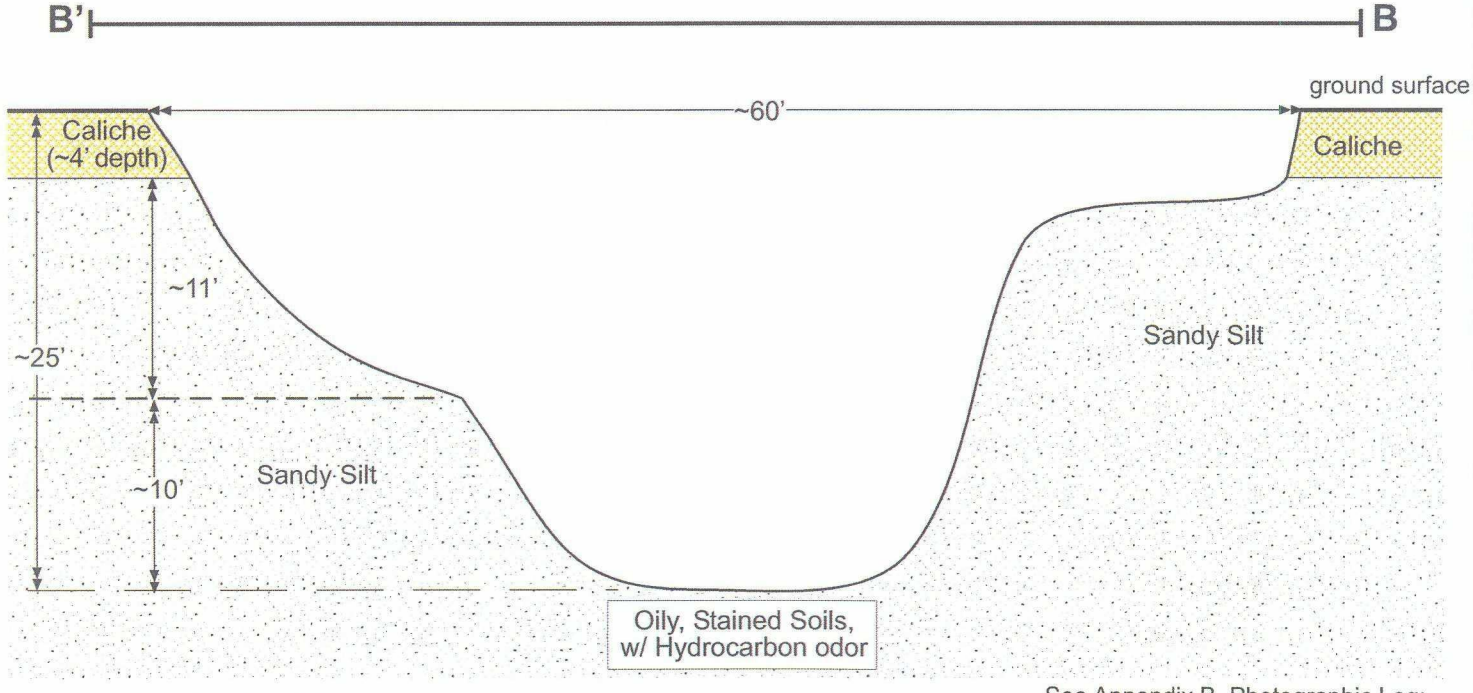
Millard Deck Estate Pit - Lea Co., NM

T: Projects\OCD - Millard Deck Estate Site\Figures\CB_figs_3_4&6.dwg



Approx. Scale: 1" = 10'
View Looking West

See Appendix B, Photographic Log;
photograph numbers 8, 9, & 10.



Approx. Scale: 1" = 10'
View Looking North

See Appendix B, Photographic Log;
photograph numbers 6 & 7.

Note: See Figure 4 for cross section lines.

Figure 5

Schematic Cross Sections
for A-A' and B-B'

Millard Deck Estate Pit - Lea Co., NM

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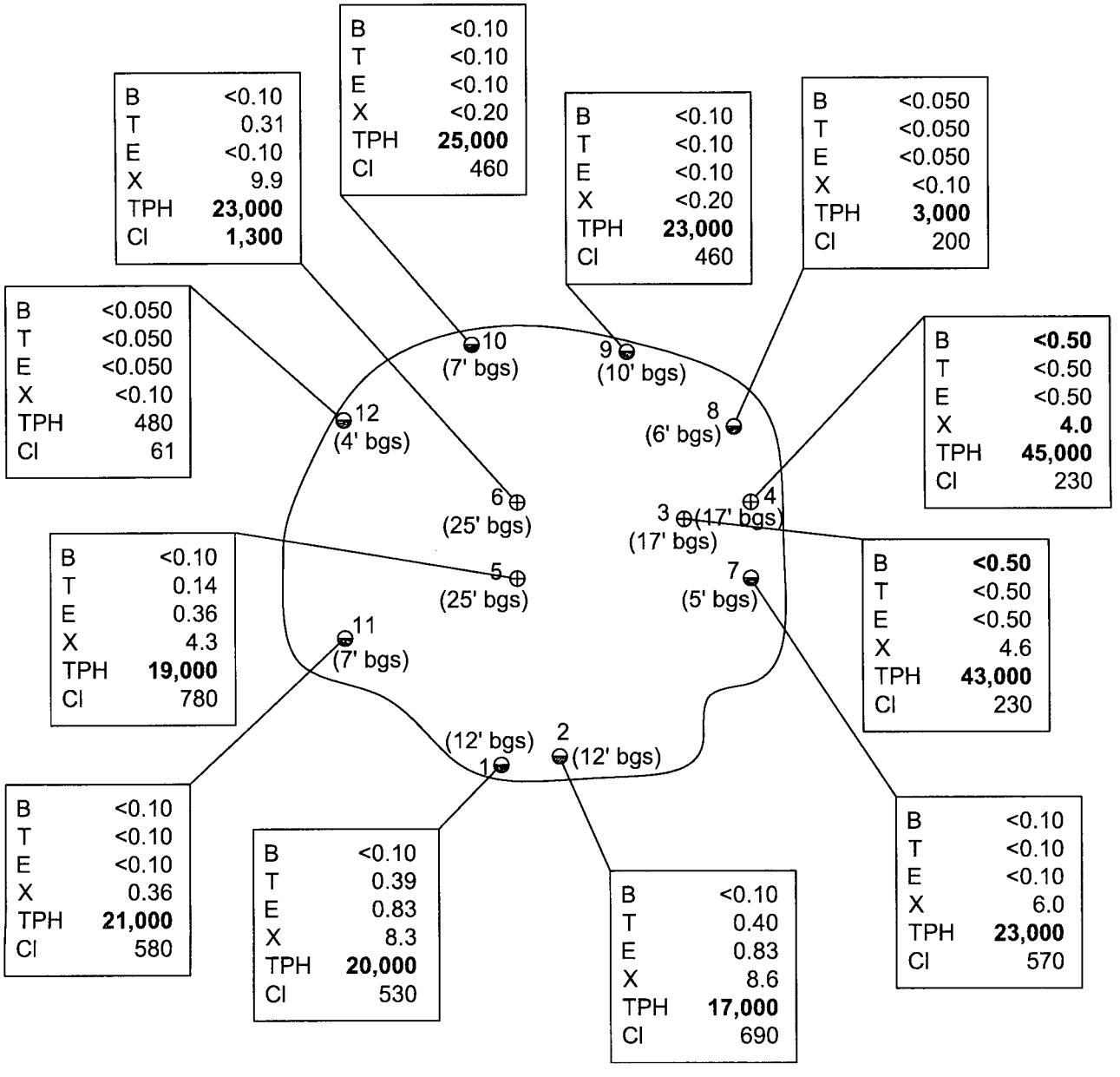


Legend

2 (10' bgs) Wall Sample ID and Depth (feet)

4 (14' bgs) Excavation Bottom Sample ID and Depth (feet)

N

APPROXIMATE SCALE

0 20 40

FEET

Notes:
All concentrations shown are in milligrams/kilogram
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
TPH = Total Petroleum Hydrocarbons
Cl = Chloride
Sample Dates: June 12 and 13, 2008
Results in **bold** indicate a concentration above Site cleanup standards

INTERA

Figure 6
Sample Results

Millard Deck Estate Pit - Lea Co., NM

T: Projects\OCD - Millard Deck Estate Site\Figures\CB_figs_3_4&6.dwg

Tables

Table 1
Field Analysis for Volatile Organic Compounds

Report on Phase II Remediation Activities at the Millard Deck Estate Pit
Lea County, New Mexico

Sample Type	Sample Location	Date	Depth (feet bgs)	PID Reading (ppm)
Excavation Samples	Bottom of Pit	6/11/08	4	1,053
	West Wall	6/11/08	4	932
	North Wall	6/11/08	6	252
	South Wall	6/11/08	6	268
	West Wall	6/11/08	6	646
	East Wall	6/11/08	6	784
	Bottom of Pit	6/11/08	6	230
	East Wall	6/11/08	6	223
	South Wall	6/11/08	6	2.4
	Bottom of Pit	6/11/08	6	331
	North Wall	6/11/08	6	252
	West Wall	6/11/08	6	36.1
	South/Southwest Wall (high oil/sludge content)	6/12/08	5	940
	South/Southwest Wall (low oil/sludge content)	6/12/08	5	399
	Bottom of Pit, West end	6/12/08	10	174
	North Wall	6/12/08	5	458
	South Wall	6/12/08	4	1.3
	East Wall	6/12/08	4	7.5
	Bottom of Pit	6/13/08	18-20	584
	East Wall	6/13/08	10	1.4
Confirmation Samples [a]	Sample 1	6/12/08	12	353
	Sample 2	6/12/08	12	493
	Sample 3	6/12/08	17-20	904
	Sample 4	6/12/08	17-20	904

Notes:

Depths shown as ranges are estimations, as excavation conditions were not always conducive to accurate measurements.

bgs = below ground surface

ppm = parts per million by volume

[a] Figure 4 and Figure 6 ID

Table 2
Field and Laboratory Results of Confirmation Soil Samples

Report on Phase II Remediation Activities at the Millard Deck Estate Pit
Lea County, New Mexico

Lab Sample Identification (Depth [feet bgs])	Figure 4 & Figure 6 ID	Date	Field Analysis			Laboratory Analysis (mg/kg)						
			VOCs, PID Reading (ppm)	Chloride, Field Kit (mg/kg)	TPH, PetroFLAG[c] (ppm)	Chloride	TPH	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX
West wall 12' bgs # 1	1	6/12/08	353	303	>3,000	530	**20,000**	<0.10	0.39	0.83	8.3	9.52
West wall 12' bgs # 2	2	6/12/08	493	480	>3,000	690	**17,000**	<0.10	0.40	0.83	8.6	9.83
Bottom of Pit 1 (17)	3	6/12/08	904	141	>3,000	230	**43,000**	**<0.50**	<0.50	<0.50	4.6	4.6
West wall 6' bgs # 1	3[a]	6/12/08	N/A	N/A	N/A	250	**38,000**	**<0.50**	<0.50	<0.50	4.1	4.1
Bottom of Pit 2 (17)	4	6/12/08	904	165	>3,000	230	**45,000**	**<0.50**	<0.50	<0.50	4.0	4.0
West wall 6' bgs # 2	4[b]	6/12/08	N/A	N/A	N/A	230	**42,000**	**<0.50**	<0.50	<0.50	3.6	3.6
Bottom of Pit 3 (25)	5	6/13/08	N/A	N/A	N/A	780	**19,000**	<0.10	0.14	0.36	4.3	4.80
Bottom of Pit 4 (25)	6	6/13/08	N/A	N/A	N/A	**1,300**	**23,000**	<0.10	0.31	<0.10	9.9	10.21
South Wall 1 (5)	7	6/13/08	N/A	N/A	N/A	570	**23,000**	<0.10	<0.10	<0.10	6.0	6.0
South Wall 2 (6)	8	6/13/08	N/A	N/A	N/A	200	**3,000**	<0.050	<0.050	<0.050	<0.10	<0.25
East Wall 1 (10)	9	6/13/08	N/A	N/A	N/A	460	**23,000**	<0.10	<0.10	<0.10	<0.20	<0.50
East Wall 2 (7)	10	6/13/08	N/A	N/A	N/A	460	**25,000**	<0.10	<0.10	<0.10	<0.20	<0.50
North Wall 1 (7)	11	6/13/08	N/A	N/A	N/A	580	**21,000**	<0.10	<0.10	<0.10	0.36	0.36
North Wall 2 (4)	12	6/13/08	N/A	N/A	N/A	61	480	<0.050	<0.050	<0.050	<0.10	<0.25
Site Cleanup Standards[1]						1,000	2,500	0.2	---	---	---	50

Notes:

[a] Duplicate sample for "Bottom of Pit 1" sample.

[b] Duplicate sample for "Bottom of Pit 2" sample.

[1] Site Cleanup Standards as agreed upon on a meeting between OCD and INTERA on May 9, 2008 and as specified in the Work Plan for the Site (INTERA, 2008).

[c] All PetroFLAG values were above the 3,000 ppm (equivalent to mg/kg) instrument range.

Site cleanup standards for BTEX are for the combined total of all 4 constituents.

Values listed with a "<"symbol show that the analyte was not detected above its respective practical quantitation limit (PQL)

Results in **bold** indicate a concentration above Site cleanup standards

bgs = below ground surface

BTEX = benzene, toluene, ethylbenzene, and xylenes

For results less than the PQL, a value of zero (0) was used in BTEX calculation. In the case where all BTEX values were less than the PQL, the PQL values were added together.

mg/kg = milligrams per kilogram

N/A = Not analyzed

PID = photoionization detector

ppm = parts per million

TPH = total petroleum hydrocarbons

VOC = volatile organic compound

Appendix A

Waste Manifests
(Provided Electronically)

Appendix B

Photographic Log

No. 1 – Site of June 2007 excavation upon arrival on June 10, 2008; the remaining fill from June 2007 is visible in the background. View is to the southeast.

No. 2 – View to the north after reaching the end-point of the June 2007 excavation. Staining is visible along the north wall.

No. 3 – View to the east after reaching the end-point of the June 2007 excavation. Staining is visible along the east wall.

No. 4 – View to the east approximately 6 ½ hours after photograph No. 3 was taken, showing further extent of contamination.

No 5 – View of the bottom of the excavation at 9 a.m. on June 11, 2008. A white/grey caliche layer is visible to the left of the photograph, while brown, sandy silt can be seen at the pit bottom.

No. 6 – View to the north of the excavation after 1,400 cubic yards of contaminated soil had been removed off-site; photograph 1 of 2 (see Figure 5).

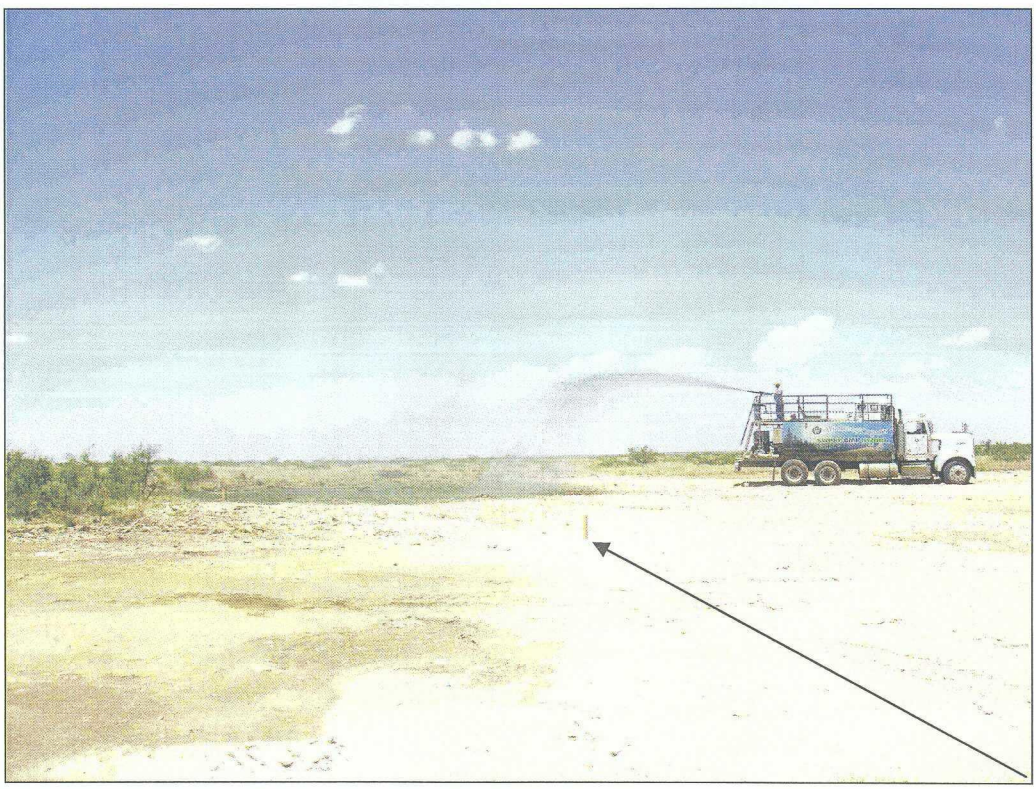
No. 7 – View to the north, northeast of the excavation after 1,400 cubic yards of contaminated soil had been removed off-site; photograph 2 of 2 (see Figure 5).

No. 8 – View to the west of the excavation after 1,400 cubic yards of contaminated soil had been removed off-site; photograph 1 of 3 (see Figure 5).

No. 9 – View to the northwest of the excavation after 1,400 cubic yards of contaminated soil had been removed off-site; photograph 2 of 3 (see Figure 5).

No. 10 – View to the west, southwest of the excavation after 1,400 cubic yards of contaminated soil had been removed off-site; photograph 3 of 3 (see Figure 5).

No. 11 – View to the north, northeast looking at the backfilled excavation. Visible to the north are stakes placed at the corners of the excavation to aid reseeding operations.



No. 12 – View to the north, northeast looking at the backfilled excavation and the start of reseeding operations. The stakes from Photograph No. 11 are visible in the foreground.

Appendix C

Field Notes

6/22/07 G. Desselle (GD)

1430 TO Hobbs

2010 TO ABQ

0330 Arrive ABQ

6/9/08 Cochburn Stake Lease Site G. Desselle

GD

0600 Leave ABQ For Hobbs

1140 Outside Hobbs @ Cochburn Site, waiting for AES.

FUGRO Staff: GARY DESSELLE (GD), DAVID LAWSON (DL)

Reconnaissance of site, check for flagging/markers from One Call

1150 High pressure gas line to north of the pit, fill dirt from last year to the SE of pit.

1210 AES called, low vehicle issues. Will fix & be here ASAP.

1238 AES on site. Felix Espinosa, Billy Chavez, Anton Apodaca.

6/9/08 G. Desselle

1250 AES missing one operator. Replacement will be here tomorrow. Will focus on Cockburn today.

- Moving excavator from main road to the site.

- Notes from new car in DC Field book for the Cockburn site.
- Note @ Hobbs @ [illegible] 1700

[signature]

6/10/08 Millard Park G. Desselle

Grid [illegible] [illegible], to meet

AES @ Highway 8? DC to

Cockburn, GD to Millard Park.

0748 at Millard Park Site. Hot windy (10? high today)

[illegible] are flagging approximately 65' [illegible] of the [illegible] end of the pit. Fill pile [illegible] to the S of the pits.

0800 Photo! Looking to the SW at pit area & fill pile.

0821 Equipment moved to pit, safety meeting held. To start work (removing overburden)

0835 PID calibrated. Will use in breathing zone & on soil to contamination.

AES Staff: Felix Espinosa, Ethan Baca
Intera - GARY Desselle (GD)

6/10/08 Millard Dick G. Desselle

0857 Spoke w/ J. Calkmore re: the video. Told him the markets which put the general location in distance from closest site (~20 mi from Ernie ___ [Sandoval] ___ @ Millard site) & lat/long. Will not put exact [illegible] window's address. [illegible] - [illegible] [illegible]

0912 Still removing overburden

0925 To Visqueen on south & ~~east~~ to west sides of pit, moving to north & west.

Billy Chavez of AES has a blowout on the road @ Cuba [illegible] w/ gas while going to meet the next 4 trucks. DL to meet trucks & pick up Billy Chavez.

6/10/08 M. Dick G. Desselle

0919 At depth where excavation went at last year. Strong hydrocarbon odor.

Fein to go meet trucks so we can show them the way to the site. Can't start removing contamination until they arrive.

Photo 2 - Looking [illegible] @ pit.

1008 Photo 3 Looking ~~S~~ SW [illegible] @ pit.

1028 3 trucks on site, 3 more expected.

Truck 1 Marcel Trucking USDOT 1440785 (White) 505.302.8541

(no plate #) 2 Hall Trucking USDOT 1441979 (Red)

3 M. Francis Trucking USDOT 1614015 (Orange) 505 444 6725

6/16/08 M. Deck G. Desseck

1041 1st truck being loaded. Assuming 20 ~~18~~ (20) y^3 per truck. ~~they are 40~~

1055 1st truck off site. 20 y^3 contaminated soil (CS) off site.

2nd truck being loaded

- Signing manifest "on Behalf of NYS DEC"
- Generator is listed as "Unknown" Type of waste is non-hazardous contaminated soil

1111 Photo 4- 2nd loaded truck

1116 2 more trucks on site

Truck 4 J Bar C Trkg (White/Orange) USDOT 1397460 No phone #

5 D&R Trkg (Red) USDOT 1509267 905 631-9405

6/16/08 M. Deck G. Desseck

Cont from 1116 entry

Truck 2 gone, 40 y^3 CS off site
Truck 3 being loaded @ 1124

1133 Truck 3 off site w/ 20 more y^3 of CS. 60 y^3 CS gone @ this point

1135 Truck 4 being loaded

1153 Truck 4 off site, 80 y^3 CS off site.

1155 Truck 5 being loaded

- @ pit no odor @ this time.
- Contamination still visible on W/SW & W sides however

- Due to high winds, operators in their cabs & lack of extensive contamination, no PID readings will be taken @/near the excavation

6/10/08 M. Deur Gr. Desrelle

1222 Truck 5 off site, 180 y^3 CS.

1228 CS visible on W, E & S sides of pit (see E in from 2007 report for site diagram).

- Caliche layer encountered in these areas. Last year, 4 potholes were attempted only 1 working due to the caliche layer. The new drive path was successful.

YES now working in pit to prepare for next round of trucks.

1240 Lunch

1310 1st truck back on site (6th load)

1330 1st truck off site. 20 y^3 going 2nd truck loading (7th load)

6/11/08 M. Deur Gr. Desrelle

1332 Will continue to use 3 copies of manifest & Sundance will give us a copy of a ticket as well.

1345 2nd truck off site w/ 7th load overall for 140 y^3 CS removed.

1350 3rd truck loading w/ 8th overall load

- NOTE: Sundance Facility closes @ 7pm, so we will get another load done today.

1358 3rd truck going 160 y^3 CS removed

1424 4th truck loading w/ 9th load overall (TRUCK 5). Trucks 4 & 5 switched orders.

1435 Truck 5 off-site w/ 9th load; total now 180 y^3 CS removed

6/10/08 M. Rau G. Desselle

1438 Truck 4 not on site to load.

1507 Truck 4 on site will call him to take this load & not come back for a third load, but to meet @ the pile in the morning. Ground have been ice over the whole area.

1525 Truck 4 off site w/ 10th load. 20 y^3 removed (contaminated soil, or "CS").

1530 Truck 1 back on-site & idling. Truck 2 on site as well.

1542 Truck 1 off site w/ 11th load. 220 y^3 CS removed.

Truck 2 busy loading 12th load of today.

6/10/08 M. Rau G. Desselle

1535 Truck 2 off-site w/ 12th load. 220 y^3 CS removed.

1620 Truck 3 loading w/ 13th load of today.

- Found more piping on north end of pile will have to pile that of the rest of the dirt from last year that was piled near the ASTs.

1642 Truck 3 off-site w/ 13th load. 260 y^3 CS removed.

Waiting on Truck 5. (14th load)

1649 Truck 5 on-site.

1729 Truck 5 off-site w/ 14th load of a total of 280 y^3 of contaminated soil removed.

- Photo 5. Pit looking South

6/10/08 M. Deck G. Desselle

1435 TO HOSB

1740 to hotel after getting gas.

6/11/08 M. Deck G. Desselle

0600 TO get food & to site

0615 Dave Lawler copying back of

cl strip bottle onto paper. The bottle shows how to interpret strip results & we need to split the strips for our two sites.

Need cl test strips (higher low range) brought for this trip. Expiration date is 4/2009

0715 At Site.

0730 AES on site. Ice dropped for possible sampling. Safety meeting

AES dropping pit. For 12 wells Should be here ~ 0800.

0744 PID calibrated

6/11/98 M. Peca G. Resseler

0716 Truck 1 [illegible] - arrive @ site

- will be 15th & last load, respectively.

0805 Truck 1 off site w/ 15th load; 300 yd^3 (approximately) soil (CS) off site

0805 Truck 2 loading

0808 PID reading 0.8 ppm @ south edge of pit. Hydrocarbon odor present

0815 Truck 3 loading (17th load)
Truck 2 off site w/ 16th load; 320 yd^3 CS gone.

0828 Truck 4 off site w/ 17th load. 340 yd^3 gone (of CS).

Soil sample obtained from here →

6/11/98 M. Peca G. Resseler

↑ bottom of the pit. Placing in car. w/ heater on to see if possible temp. not high enough yet (FOR PID analysis)

0830 Truck 3 loading w/ 18th load.

0837 - Truck 5 loading w/ 19th load as truck 3 is having an issue w/ it's dump mechanism. Trying to fix it now.

0838 - Taking PID reading of 0828 soil sample. ~~1073~~ 1053 ppm

0847 Floor is loosing east & pit bottom & pit & the east & south ends are still visibly stained. S & E contamination appears do only be 3-4' bgs.

6/11/18 M. Deca G. Pesselle

0852 Truck 3 Excav. loading again

0858 Truck 3 gone w/ 18th load, 360 yd³ CS gone.

0920 Truck 5 loading

0927 Truck 5 gone w/ 19th load, 380 yd³ gone. Note: guinea load time due to use of front end loader staging, excavator used yesterday.

0942 Found it - bottom of pit showing contam. Odor present from high winds

0923 Spoke w/ Peter & they will start to close @ the east, south & west ends of the pit as the north looks good for now. We will dig this area next (the north side has been the staging area for excavation thus far).

6/11/18 M. Deca G. Pesselle

1007 Truck 1 loading w/ 20th load.

1045 Truck 1 offsite/19th load/400 yd³ gone
Truck 2 loading

1023 Soil sample obtained from 3-4' bgs in west wall. Note: W wall still dirty @ this appx depth. (See 1023 entry)

1033 Truck 2 offsite/21st load/420 yd³ CS gone

- [3-4' bgs W end of pit
PID = 93.2 ppm]

1040 Truck 3 on site & loading 22nd load. Switched order w/ Truck 4. 4 is slower due to lack of air

6/11/08 M. Deck G. Rossello

Suspension.

1035 Truck 3 off site w/ 22nd load / 440 y³ CS gone.

1059 Truck 4 on site.
- Billy Chavez (ATES)
- [illegible] of fuel
- NMOCD representative
- [illegible] Jim Griswold

1100 Truck 5 on site

1108 Truck 4 gone w/ 23rd load 460 y³ CS gone.

- Truck 5 loading

1120 Truck 5 gone / 24th load / 480 y³ CS gone.

6/11/08 M. Deck G. Rossello

1125 Wagner (Sigma General) here to work on excavation.

- Jim Griswold says do more more on the edges of the excavation vs. going deeper & having to bench.
- Will take more PID samples as the day goes on. Still dirty on all sides (visually olfactory).

1132 Pick up @ South end of pit. Heavy contamination

1211 Wagner off site

- EOD Spoke w/ J. Griswold of NMOCD. Will do about 5 petroflags, split w/ him the lab samples. Of those lab samples, we'll also do Cl & PID.

Collins M. Peck G. Russell

1217 Truck 1 here loading 25th load. Truck 2 on site

- Jim Griswold won't be on site w/ us doing PetroFlag @ the tanker is not in the field.

1223 Truck 1 off site w/ 25th load / 500 yd^3 CS gone

- Truck 2 loading 26th load.

1233 Jim Griswold off-site to Cocksura. Truck 2 gone / 26th load / 520 yd^3 CS

1234 Truck 3 on-site & loading 27th load.

1250 Truck 3 gone / 27th load / 540 yd^3 CS

Collins M. Peck G. Russell

1312 Truck 5 ~~off~~ loading 28th load.

- Truck 4 too slow (order switched again). May replace this truck tomorrow.

1325 Truck 5 gone / 28th load / 560 yd^3 CS gone.

- Photo 11 - South wall CS @ this point

1330 Truck 4 loading 29th load. Asked that we NOT come back today - TCB has to talk to the equip rental place today & his slow speed won't allow us to leave today on time for that.

1335 Soil samples obtained

6/11/08 M. Beck G. Dessells 6/11/08 M. Beck G. Dessells

Ran 4 walls & bottom of excavation using excavation. Light on PID in ~15 minutes from ejection sample location.

Location		Resp. (ppm)	Time
North	4-6' bgs	252	1335
South		2608	1329
West		646	1333
East		784	1331
Bottom		230	1328

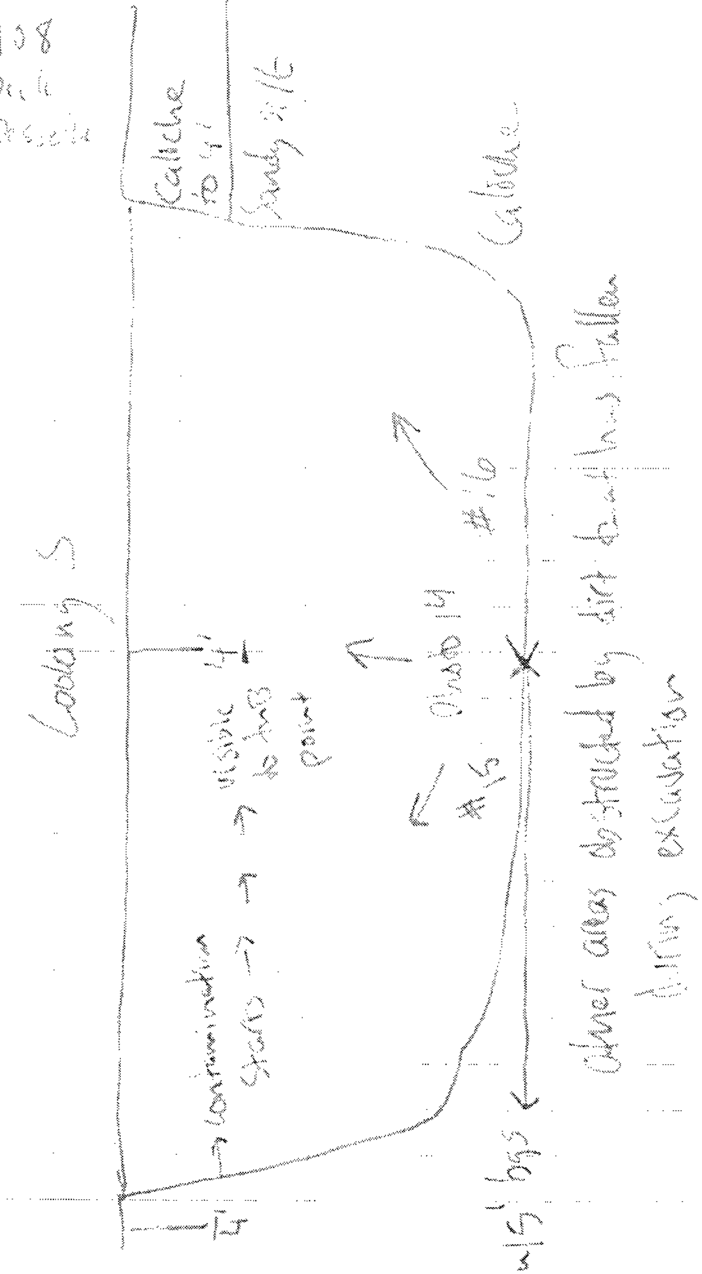
1345 Truck off site w/ 27th load, 580 yd³ soil. 4 trucks to return for clean w/ 400 yd³ to fill excavation. Total to 640 yd³ for disposal & leaving 340 yd³ for backfill.

1350 Results of PID readings not reflect best case scenario sampling as excavator was used to sample, potentially mixing clean zones w/ contamination. This could cause more contaminated areas to appear less contain & vice versa.

1401 Depth of pit @ this point is approximately 15'. It is ~40' x 40'. Composed of silty sand & sandy silt, brown to white in caliche layer. Some fine & range to coarse. Contamination on east & south begins @ 6' bgs.

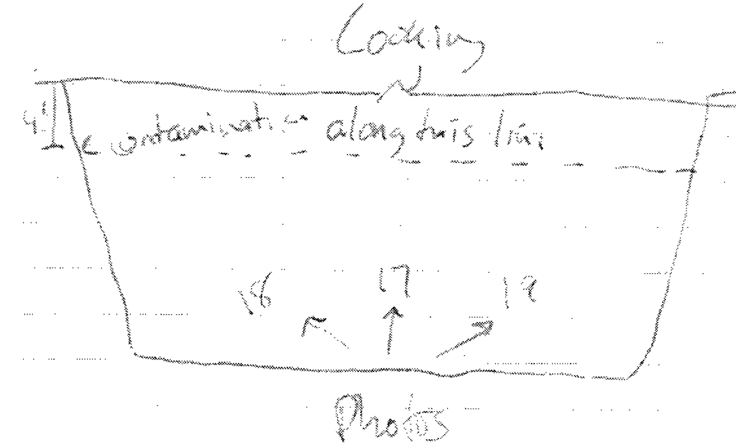
Photos 12 & 13 of E & S walls from W side of pit.

6/11/08
M. Peck
G. Pessetto



6/11/08 M. Peck G. Pessetto

1417 High winds, temp of appx 104°. Will make next round of PID samples slower.



1434 Trucks taking longer to get back as they are also getting fill dirt when they unload

1451 Truck Leave site
1455 1st 20 yd of Clean Fill (CF) on site

6/11/08 M. Peck S. Pressella

1456 Truck 3 on site, Truck 2 on site (620 yd³ CF) on site
- appears to be below sand

1504 Truck 3 loaded w/ 30th load
Truck 2 will be 31st load
Truck 1 " 32nd load

1510 Truck 3 gone w/ 30th load
& 600 yd³ CS gone.
- Truck 2 loading
- 2 more loads F CF
with 2 delivered this AM
bringing total to 600 yd³ CF.
120
(one more truck to deliver 20 yd³ CF also)

1517 Truck 2 gone w/ 31st load
& 620th yd³ CS.
- Truck 1 loading 32nd load

6/11/08 M. Peck S. Pressella

1527 Truck 1 ~~location~~ gone
w/ 32nd load / 640 yd³ CS
gone.

Last load for today 20 yd³ CF
to deliver; 340 yd³ left for
tomorrow.

1539 Last of 3 of 5 soil samples
obtained. Truck 5 brought
20 yd³ CF. Noted in 1510
entry. 120 yd³ CF total today
after 2 more 20 yd³ loads F
CF. (180 @ site now)

Location ~~Sample~~	Result (ppm) ~~Location~~	Time
East	223	1536
South	2.4	1538
Bottom	331	1539

- Read 10 min after sample time
- 4-6' bgs; bottom @ ~ 15' bgs

6/11/08 M. Deck G. Resseltte

1557 – South PID sample not indicative of olfactory evidence of contamination of sample. ~~GD~~

[illegible] Dee Caldwell on site, Gathered 2 more PID samples from North & West sides of the pit from 4-6' bgs.

1610 North sample – 252 ppm
West sample 36.1 ppm

1626 Leaving site w/ J. Goldsmith

1631 Truck 4 passed on road. Bringing fill – 140 yd³ CF now

1745 At hotel after getting supplies for tomorrow

6/12/08 M. Deck G. Resseltte

0600 [illegible] Meeting – Food & to Site

0701 At Site

0715 Ice replaced in double-bags in sample cooler

-Nederhouse S left w/ load 33 & 660 yd³ Contaminated Soil (CS) total
-Arrived @ 1:37 ? Holiz, left @ approx. 1600.

0722 AES on site. ~~Safety meeting~~ Gas - From Cochran to fuel vehicles. Milford crew not on site yet.

0723 AES Milford crew on site. Safety meeting

0733 Trucks running on site

6/12/08 M. Deon G. Desselle

0734 TRUCK 1 here 37

-New- TRUCK 2 - Anchondo
Ph 337 35
USDOT 987635

-New- 7 - Anchondo 37
#12
USDOT 987635

TRUCK 2 here 36

0735 TRUCK 1 Staged. Not loading yet. 34th load.

-- Note - Fire @ 120 y³
TRUCK 1 will not. TRUCK 4 came in his place.

0738 AES from Cochran off site

0802 TRUCK 1 loading 34th load.

0811 TRUCK 1 gone, 34th load, 680 y³ CS.

6/12/08 M. Deon G. Desselle

0811 TRUCK 6 loading (no fill)

0818 TRUCK 6 leaving w/ 35th load, 700 y³ CS gone.

0820 TRUCK 7 loading 36th load.

0827 TRUCK ~~6~~ 7 gone, ~~35th~~ 36th load. gone. 720 ft³ CS gone

0828 TRUCK 2 loading 37th ~~last~~ load.

0832 TRUCK 8 Vasquez
Yellow
-NEW- 504
USDOT 1028454

Note TRUCKS 7 & 2 switched manifest #'s. Are 37, 36, resp.

0836 TRUCK 2 gone w/ 37th load, 740 y³ gone of CS

6/12/08 M. Deck G. Dessell

0838 TRUCK 8 loading 38th load

TRUCK 3 w/ 20y³ Clean Fill (CF), total = 140y³ CF

0842 TRUCK 5 w/ 20y³ CF 160y³ CF total

- TRUCK 8 gone w/ 38th load, 760y³ CS gone.

TRUCK 3 loading 39th load.

0849 TRUCK 3 gone w/ 39th load, 780y³ CS gone.

- TRUCK 5's signals not working. May have to stop driving after he unloads.

0851 - Loading 40th load - TRUCK 5

6/12/08 M. Deck G. Dessell

0859 Photo 20 - south wall contamination @ this point

0903 Well id on W of the 2 ASTs Reads, line by line:

- "Millard Deck Estate, Lea 407 State #5"

- "UL D Sec33 T21S R35E Lea County"

- "API #30-025-03555"

- Plugged 7-20-2006"

0909 TRUCK 5 gone, 40th load, 800y³ CS gone

0913 TRUCK 4 on site. Will be 41st load. Told him to not come back & to give forms to Marcel. Time too slow, >1hr late today.

6/11/08 M. Deck G. Pessoile

0920 Benny Pena on site [illegible] [illegible] Hill [illegible]
575-370-3160

0930 2 soil samples coll'd from S, SW area of pit appx. 4-5' bgs. Sludge in soil matrix. Rocky, silty sand. Read @ 940

0934 TRUCK 4 gone w/ 41st load, 820 y³ gone of CS.

0940 Sample 1 - 940 ppm - more sludge
Sample 2 399 ppm - less sludge mixed w/ soil/rock

PID

0953 Photo 21 - zoom to S wall seam of contamination
+ 22 - zoom out for scale

6/12/08 M. Deck G. Pesselle

1011 Jim Griswold, NMOCD on site

1015 Sample from west end bottom of pit obtained for PID
Read in 10 min
- Appx. 10' bgs

- TO North end of pit from plugged well ~~275~~ 180 bearing
315° SE 360

1022 Truck ~~X~~ 9 on-site (NEW)

1023 PID reading, btm of pit = 174 ppm

- TRUCK 9 Glez, 01
USDOT 1388774
505 738 0812

- Loading 42nd load, no fill (got lost)

Gloria's M. Peck G. DeSalle

1039 Truck 1 on site. 20 y^3 CF
130 y^3 CF
- well
N 32 44091°
W 103 37899°
3630' AMSL

1036 Truck 6 on site 20 y^3 CF
200 y^3 CF down

1039 Truck 1 loading 43rd load
Truck 4 gone w/ 42nd load,
840 y^3 gone, CS.

1044 TRUCK 6 loading 44th
load. TO BE 880 y^3 CS,
- TRUCK 1 gone w/ 43rd
load, 860 y^3 CS gone.

1046 TRUCK 7 w/ 20 y^3 CF; 220 y^3
will be 45th load. CF

Gloria's M. Peck G. Russell

1050 Truck 6 gone w/
44th load, 880 y^3 gone

- Truck 7 loading 45th load

1053 TRUCK 2 on site w/ 20 y^3 CF.
240 y^3 CF

1056 TRUCK 7 gone w/ 45th
load, 900 y^3 CS gone

- TRUCK 2 loading 46th load.

1058 TRUCK 8 on site w/ 20 y^3 CF
260 y^3 CF. TO BE 47th load

1108 TRUCK 2 gone w/ 46th load,
920 y^3 CS gone.

GP - TRUCK 8 loading 47th load.
~~1110 TRUCK 8 gone, 47th load, 940 y^3 CS~~
1113 TRUCK 10 - NEW - gone
TO FILL, TO BE 48th load

6/12/08 M. Deck G. Desselle

1116 TRUCK 10 ON FARM
RED
'95 INT 146434
#44
- 10 trucks accounted for, 1 has no signal lights, 1 asked to leave, should fix & come back next time.

1130 Sample obtained from north wall, ~5' bgs, Read @ 1140

1140 Sample = 458 ppm PID

1145 TRUCK 8 OFF site w/ 47th load. 740 y^3 CS gone

TRUCK 10 loading, 48th load

1153 TRUCK 3 on site w/ 20 y^3 CF. 280 y^3 CF total.

6/12/08 M. Deck G. Desselle

1155 N. wall PID read @ 1140. Visual observation would have meant clean

1180 TRUCK 10 gone w/ 48th load 760 y^3

1208 TRUCK 5 w/ 20 y^3 CF, 350 y^3 CF total.

1210 Sample obtained from S wall at ~4' bgs.

1220 Sample = 1.3 ppm PID

1231 TRUCK 3 loading 49th load. Took some time to prepare CS to load

1238 Truck 3 gone w/ 49th load, 980 y^3 CS gone

- TRUCK 5 loading 50th load

6/12/08 M. Dean G. Rossetti 6/12/08 M. Dean G. Rossetti

1249 Truck 9 enroute w/ 20 yd³ Clean Fill (CF). 320 yd³ CF total.

1252 Truck 5 gone w/ 5th load, 1000 yd³ CS gone. 400 yd³ remain.

1255 Truck 9 loading 51st load.

1305 Truck 1 enroute w/ 20 yd³ CF. 340 yd³ total.

1316 Truck 9 gone w/ 51st truck 1020 yd³ CS gone.

1313 Truck 1 loading 52nd load
- Truck 6 enroute w/ 20 yd³ CF 360 yd³ total.
- Truck 6 will be 53rd load.

1319 Truck 7 enroute w/ 20 yd³ CF 380 yd³ CF total, Truck 7 will be 54th load.

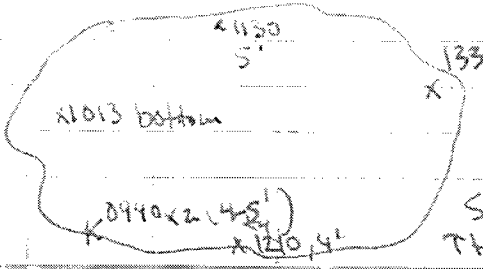
1330 Bottom of pit on South side strong odor present, visually stained as well.

1333 Fighting soil PID sample from E wall, ~4' bgs.

1334 Truck 1 gone w/ 52nd load 1040 yd³ CS gone.

1337 Photo #3 Bottom of pit, high volume of CS remains

NOTES N → ↑N ↗ TRUE N



PID SAMPLES THUS FAR

6/12/06 M Deck G. Dessert

1343 Truck 6 gone w/ 55th load, 1060 yd³ CS gone

1344 Truck 8 on site w/ 20 yd³ CF 400 yd³ CF total. 7th load

PID sample E-wall 4' bgs = 7.5 ppm

1354 Truck 7 ~~on site~~ gone w/ 54th load, 1080 yd³ CS gone.

Truck 8 loading 55th load.

1357 Truck 10 on site w/ 20 yd³ clean fill, 420 yd³ CF total SD BE 56th load

1405 Truck 8 gone w/ 55th load 1100 yd³ CS gone

6/12/06 M Deck G. Dessert

1405 Truck 10 ~~loading~~ depth load

1410 Bottom of pit depth to where benching would be required to reach further. Per J. consultant, we will not go deeper & scrape but will work on the edges of the pit to remove this contamination

1424 Truck 10 gone w/ 56th load 1120 yd³ CS gone.

1431 Samples obtained @ btm of pit w/ appx 17' bgs.
1433 Split w/ lab; CI, Photo Flag, PID

[1431, 1433] btm of pit #1 (1 & 2 resp.) Grab
[1007, 1007] btm of pit #2 - Split

TIMES - Split + Grab times

6/12/08 M. Peck G. Desselle

1400 Truck 3 moving w/ 20y³ CF. 440y³ total. TOBE 5? [illegible]

- Getting more difficult to get full buckets of CS.
- Also may be budget issues
- T. Fitz of ACS to call Gatemore & get back to me

- For 1431 split, split w/ lab will be labeled w/ a "Z" for my own tracking. Chain of Custody will have a false label of "West Wall @ Feet bgs" (1?) & false time of "1007" & "41009"

1512 Truck 5 loading 58th load. Dumped 20y³ CF 460y³ CF total.

6/12/08 M. Peck G. Desselle

1516 Truck 3, 5 same w/ 57th, 58th load.

~~10~~ 1140, 1160y³ of CS.

- Stopping loading for now, as we can't keep up w/ the trucks.

Other trucks will dump, will not take CS.

1530 Greez Truck 4 came w/ 20y³ CF. 480y³ CF total.

1536 - 1431 pid was 404 ppm read @ 1443. 1433 mixed w/ 1431 sample

- Depth of sample = Appr. 20' bgs

6/11/08 M. Deck G. Dessellu

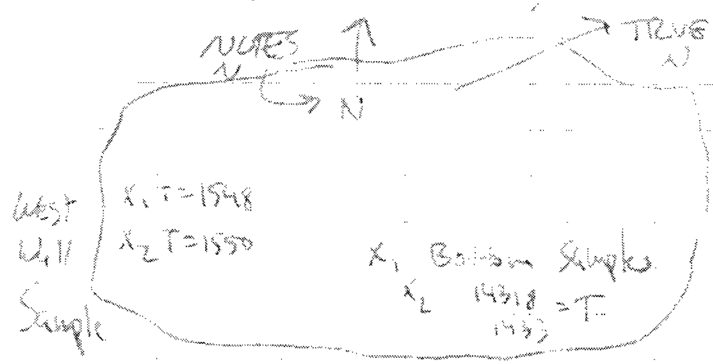
1540 Truck 4 ~~off site, w/ contaminated soil~~ GO

loading 59th load.

— Si[illegible] need truck [illegible] load [illegible] [illegible] [illegible] 41 & 46 [illegible]

1548 west wall 12' b, s #1

1550 West wall 12' b, s #2



6/12/08 M. Deck G. Dessellu

1552 Will analyze west wall for [illegible], Cl, PID @ Lab.

— Read PID @ [illegible] GO

— [illegible] clean [illegible] [illegible]

1555 Truck 4 gone w/ 59th load, 1140 y^3 gone

1600 PID = 353 ppm west wall 12' b, s (#1); 443 ppm (#2)

— Trucks 1, 6, 7 on site w/ 60 y^3 of total 540 y^3 of total.

- Truck 1 is 60th load.

1601 Asked truck 1 (driver) for manifests 41 & 46

Calculos M. Deck G. Desselle

1615 Truck 1 gone w/ 600 yd³ load, 1200 yd³ CS gone.

Truck 7 will be 6th load.

1628 Truck 8 w/ 20 yd³ CF, 560 yd³ CF total.

Truck 7 gone w/ 6th load, 1220 yd³ CS gone.

1630 Truck 10 on site w/ 20 yd³ CF. 580 yd³ CF total.

1645 Leaving site for Hobbs

1745 At hotel after gas/supplies.

Calculos M. Deck G. Desselle

1930 Starting Cl test, finishing labeling samples & filling out chain of custody

1932 Cl settling - helped w/ DPD reagent, calibration in between water & water.

Note: 8021 on BIER

1952 1950 West wall Cl (2ft sample = 3.8 in w/ water)

titrater = 1100 ppm/mg/L

= 480 mg/kg Cl (#2)

2000 1943 Bottom of pit Cl

sample = 1.5 on titrater

= 55 ppm/mg/L

$\frac{55}{\frac{1}{3}}$

165 mg/kg

06/12/05 M. Dean G. Rossello

2107 1548 West wall Cl
2.8 ~~ppm Rangeto~~ 101 ppm
titrator
= 303 mg/kg Cl - #1 ft

Note: X mg / L × 0.030 L / 1 kg × 1000 g / 1 kg

= 3 mg/kg

Multiply ppm/mg/L by 3 to convert units

2115 1433 Bottom of pit
Cl = 166 ~~ppm~~ or 4.8 mg/kg
GD
on titrator = 47 ppm
= 13160 mg/kg Cl
(41)

06/12/05 M. Dean G. Rossello

2121 4 petroflag samples prepared

Sample	PT #	Reading
1	1433 Btm 1	
2	1433 Btm 2	
3	1548 W. Wall 1	
4	1548 W. Wall 2	

2141 Waiting on PetroFlag timer

2154 PetroFlag unit not reading samples. Can not get out of Calibration mode on unit to read samples

2200 Spoke w/ J. Goldman →

6/11/08 M. D[illegible] [illegible]

→ Will keep soil samples [illegible] [illegible] [illegible] [illegible] as we [illegible] [illegible] [illegible] backhoe [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[signature]

6/13/08 M. Decle [illegible]

0600 Leave for food & then site

0710 At Site. Cal'brate P.D. [illegible] Fresh [illegible] for Samples.

- D. [illegible] of INTERA on site today as well.
- F. Esparza & [illegible] Baca of AES
- complete excavation, sampling backfill, hydroseed.

0734 AES on site
High in 120's expected. Clear, calm winds.

0742 – Safety meeting

[~580 y³ CF SO FAR]

6/13/08 M. Dore G. Gosselle

0[illegible]8 Trucks [illegible] [illegible] [illegible] fill

- [illegible] begin [illegible] today. [illegible] [illegible] [illegible] on Site. Backfill will start after [illegible].

- May use [illegible]'s fill, TBD

Also - Truckers told to [illegible] here between 8 & 9. Early arrival does not [illegible] [illegible] [illegible] [illegible] that time before 8, according to AES.

0850 Begin excavation on South wall

0821 Staining observed in excavation of the bottom of the pit proceeds

6/17/08 M. Dore G. Gosselle

0825 Truck 6 loading 62nd load

0830 Truck 6 gone w/ 62nd load. 1240 y^3 Contaminated Soil (CS) gone.

- Truck 7 loading 63rd load

0833 Truck 7 gone w/ 63rd load 1260 y^3 gone

- Truck 3 on site. No Fill to be 64th load

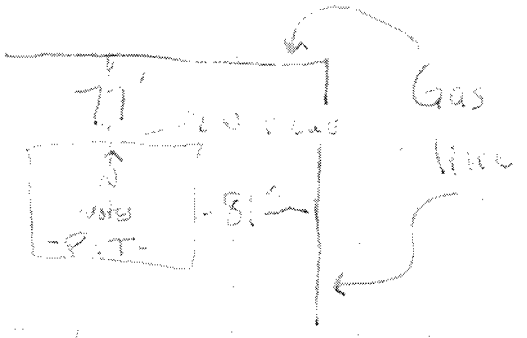
0850 Truck 3 gone w/ 64th load. 1280 y^3 CS gone

Billy & [illegible] of AES on site to view [illegible]

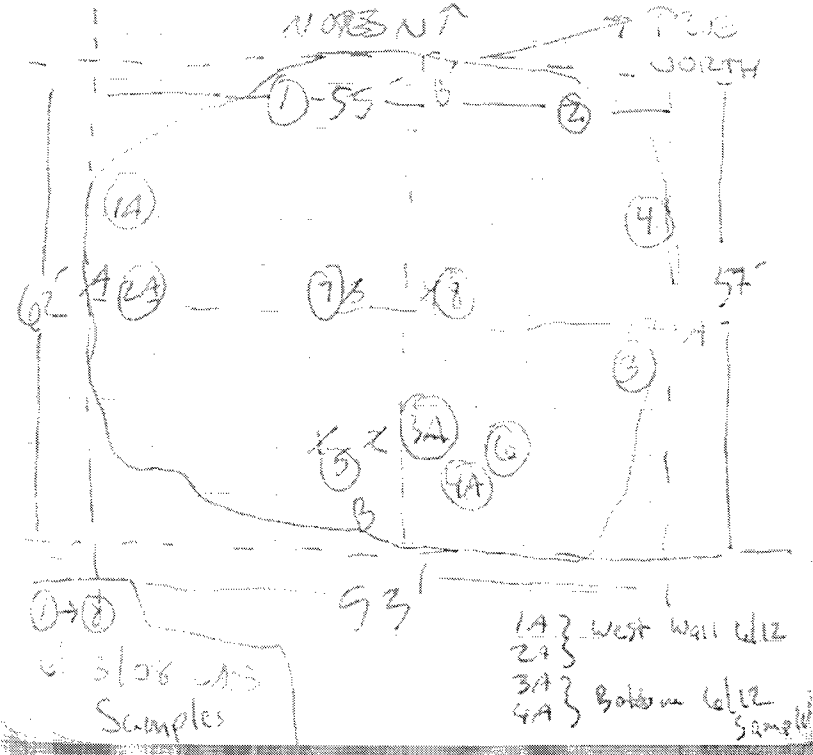
0857 Truck 8 on site, no ~~Fill~~ fill. 65th load

Weather - M. Rice G. Revelle Weather M. Rice G. Revelle

0906



Gas line distance determination (DCP Midstream)



0913 Mark on site, NO Fill
TO BE LAID

0915 Truck 8 yard
6.5th load. 1300 yd³ CS
gone

Truck 10 leaving 6th load

0920 Mark 1 on site, NO FILL
PID sample from bottom
of pit. Read @ 9:30.

0925 Truck 10 gone w/ 6.6th
load, 1320 yd³ CS gone

Truck 1 = 67
2 = 68 - on site, NO Fill

0930 PID = 584 ppm

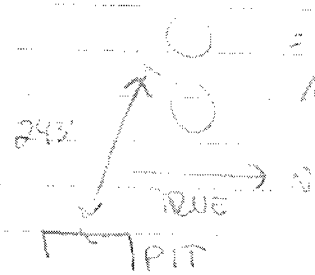
0935 Truck 1 gone, 6.2th load
1340 yd³ CS gone

6/16/08 M. Dale G. Pesolt

0932 TRUCK 7 loading 108th load

- PIT is approximately 25' deep at its deepest, 18' at the shallowest

0942 Center of 2 pits GPS



= 32° 26.435 N
103° 22.748 W
3,10' Elev

0944 TRUCK 2 gone w/ 68th load, 1360 y³ gone

- TO TRUE west end of pit, took GPS point is 243' W, NW of the pit

6/16/08 M. Dale G. Pesolt

0950 TRUCK 4 on site w/ 21 y³ clean fill (CF) 600 y³ CF total, TO BE 69th load

- TRUE west end of pit = 32° 26.426' N 103° 22.701' W ±3

- Point taken at approximate center of the west end of the pits

1000 TRUCK 9 gone w/ 69th load, 1380 y³ is gone

- TRUCK 5 on site to be 70th & final load. 5 has no fill

1038 TO grab samples log on next page

6/13/08 M. Deck G. Desselle

– Sample locations relative to Nozzle

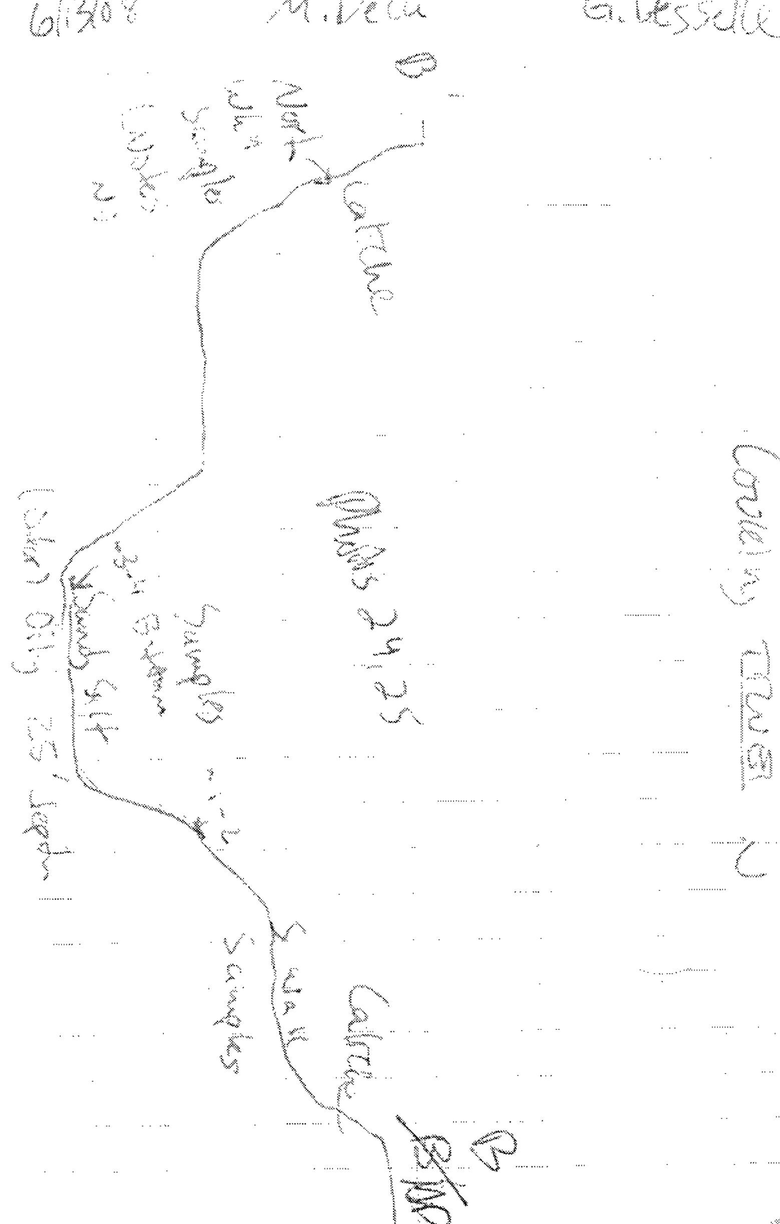
Sample ID	Time	Location	N	
1	1030 ✓	N wall 1	7'	W side
2	1035 ✓	N wall 2	[illegible]	E side
3	1025 ✓	East wall 1	10'	S side
4	1020 ✓	East wall 2	7'	N side
5	1022 ✓	South wall 1	5'	W side
6	1021 ✓	South wall 2	[illegible]	E side
7	1015 ✓	Bottom (3) of pit	} 25'	
8	1017 ✓	Bottom (4) of pit		

West Wall 1 & 2 & Bottom of Pit 1 & 2 obtained yesterday.

1013 Truck 5 [illegible] w/ 70 ton load 1400 y³ CS [illegible]. Done w/ excavation.

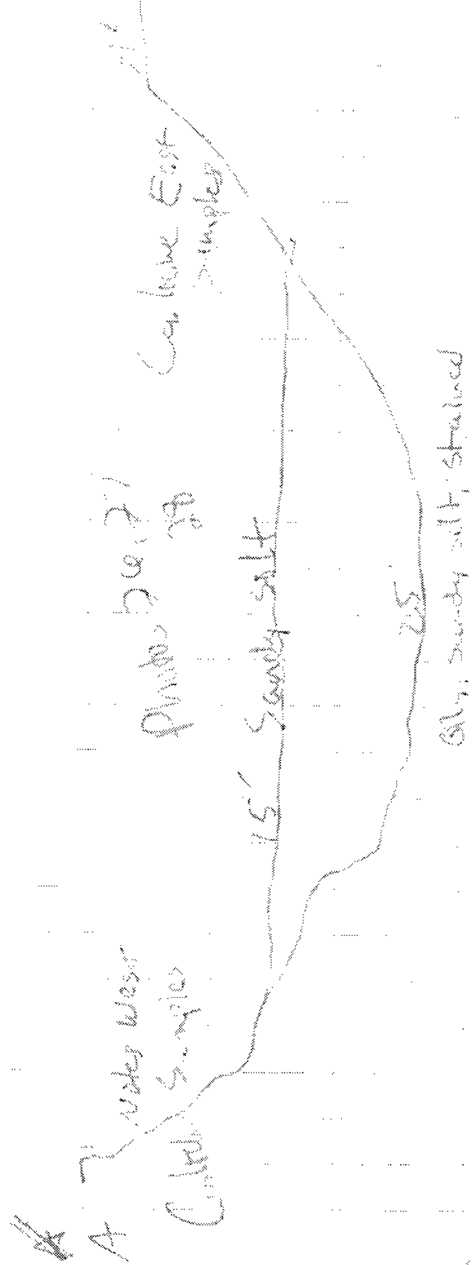
1046 Truck [illegible] 20 y³ [illegible]
– 620 y³ CF total
– 7,20 y³ CF, 640 y³ CF

6/13/08 M. Deck G. Desselle



6/13/08

TRUE N...



6/13/08 M. Dec G. Desselle

1058 Truck 3 on site 20 y³ CF, 660 y³ CF

NOTE: East wall: Split sampled w/ E wall 2 location
PID = 1.4 ppm. Few Petro Flag

1120 Billy (AES) has another flat. Felix to go deal w/ this.

- Truck 8 on site w/ 20 y³ CF 680 y³ CF total.

- Backfilling begun (2 loaders)
- Anton & Ethan of AES (truck hire, loader, resp'y)
- Felix off site to get Billy Chavez.

1124 - 4 of 9 trucks back on site.

Gilsion M.D. G. Dessek 06/3/08 M. Peck G. Dessek

1136 J. Gutierrez - do not use fill from local rancher

- TRUCK 10, 20 y^3 CF 700 y^3 CF total

1145 TRUCK 1, 20 y^3 CF 720 y^3 CF total
TRUCK 2, 20 y^3 CF 740 y^3 CF total

7 of 9 trucks back.

1227 TRUCKS 9 & 5 w/ 40 y^3 total 780 y^3 fill ~~today~~ ~~total~~ delivered overall.

- One loader low on gas one has a malfunctioning valve & is leaking fluid.

Have a call into the rental agency to fix.

1316 D. Lawler off site to ABQ.

- On Site
  - G. Dessek
  - Anton Apodaca
  - Ethan B.

1445 Felix on Site (HES)

1517 2nd loader operational! Still need service call will be slow but ~~still~~ usable

1540 2nd loader down. need to wait for service call

6/13/08 M. Dock G. DeSiello

15
1553 Wagner on site to
[illegible] @ [illegible]

1611 A new hose is
needed for the loader
Not worth the trip out
to [illegible] & back to
pit for maybe 1-2 hrs
of work. NOT [illegible]
2nd loader for fill. Will
continue to rotate operators
to have no stop in
work.

1550 Wagner off site

1637 Pipe uncovered in TRUE
west end of pit
moved to where
old fencing was placed
last year. Exposed
pipe was also moved
(same
pipe)

6/13/08 M. Dock G. DeSiello

to [illegible] location last year

1850 TRUE SW corner of
the pit = 32° 46.424 N
103° 22.703 W
DISTANCE TO AST POINT
7.03 W/NW

Photo 24 - looking
to the TRUE N/NE
- GPS point above visible
to the left of the picture

4 points of hole staked
& painted for
hydroseed. Area next to
pit used as reference w/
rock cairn @ edge of pit
measured before fill. From this
point, pit measurements from
earlier today used to mark boundaries

Carlsbad M. Dav G. Desselle 01/13/08

1820 Leaving site to Hobbs

1915 @ Hotel

1943 Leaving Hobbs for Albuquerque

0110 (01/14/08) IN ABQ

0740 Samples @ [illegible]

Can do all tests (TPH, BTEX, Cl) in 48 hrs.

Appendix D

Laboratory Report

Lab Sample ID	Figure 3 ID
West wall 12' bgs # 1	1
West wall 12' bgs # 2	2
West wall 6' bgs # 1*	3*
West wall 6' bgs # 2*	4*
Bottom of Pit 1	3
Bottom of Pit 2	4
Bottom of Pit 3	5
Bottom of Pit 4	6
South Wall 1	7
South Wall 2	8
East Wall 1	9
East Wall 2	10
North Wall 1	11
North Wall 2	12

*West wall 6' bgs # 1 – false sample location for duplicate sample with "Bottom of Pit 1" sample.

*West wall 6' bgs # 2 – false sample location for duplicate sample with "Bottom of Pit 2" sample.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 18, 2008

Joe Galemore
Intera, Inc.
6000 Uptown Boulevard, NE Suite 100
Albuquerque, NM 87110

TEL: (505) 246-1600
FAX (505) 246-2600

RE: Millard Deck Estate

Order No.: 0806222

Dear Joe Galemore:

Hall Environmental Analysis Laboratory, Inc. received 14 sample(s) on 6/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

Hall Environmental Analysis Laboratory, Inc. **Date:** *18-Jun-08*

CLIENT: Intera, Inc.
Project: Millard Deck Estate
Lab Order: 0806222

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	West Wall 6' BGS #1
Lab Order:	0806222	**Collection Date:**	6/12/2008 10:07:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-01	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		mg/Kg	10	6/17/2008 1:54:38 PM
Toluene	ND	0.50		mg/Kg	10	6/17/2008 1:54:38 PM
Ethylbenzene	ND	0.50		mg/Kg	10	6/17/2008 1:54:38 PM
Xylenes, Total	4.1	1.0		mg/Kg	10	6/17/2008 1:54:38 PM
Surr: 4-Bromofluorobenzene	144	81.4-117	S	%REC	10	6/17/2008 1:54:38 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	250	1.5		mg/Kg	5	6/17/2008 5:45:00 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	38000	2000		mg/Kg	100	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	West Wall 6' BGS #2
Lab Order:	0806222	**Collection Date:**	6/12/2008 10:09:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-02	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		mg/Kg	10	6/17/2008 2:24:53 PM
Toluene	ND	0.50		mg/Kg	10	6/17/2008 2:24:53 PM
Ethylbenzene	ND	0.50		mg/Kg	10	6/17/2008 2:24:53 PM
Xylenes, Total	3.6	1.0		mg/Kg	10	6/17/2008 2:24:53 PM
Surr: 4-Bromofluorobenzene	135	81.4-117	S	%REC	10	6/17/2008 2:24:53 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	230	1.5		mg/Kg	5	6/17/2008 7:12:02 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	42000	2000		mg/Kg	100	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	West Wall 12' BGS #1
Lab Order:	0806222	**Collection Date:**	6/12/2008 3:48:00 PM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-03	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 2:54:59 PM
Toluene	0.39	0.10		mg/Kg	2	6/17/2008 2:54:59 PM
Ethylbenzene	0.83	0.10		mg/Kg	2	6/17/2008 2:54:59 PM
Xylenes, Total	8.3	0.20		mg/Kg	2	6/17/2008 2:54:59 PM
Surr: 4-Bromofluorobenzene	209	81.4-117	S	%REC	2	6/17/2008 2:54:59 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	530	1.5		mg/Kg	5	6/17/2008 7:29:27 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	20000	1000		mg/Kg	50	6/16/2008

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	West Wall 12' BGS #2
Lab Order:	0806222	**Collection Date:**	6/12/2008 3:50:00 PM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-04	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 3:25:07 PM
Toluene	0.40	0.10		mg/Kg	2	6/17/2008 3:25:07 PM
Ethylbenzene	0.83	0.10		mg/Kg	2	6/17/2008 3:25:07 PM
Xylenes, Total	8.6	0.20		mg/Kg	2	6/17/2008 3:25:07 PM
Surr: 4-Bromofluorobenzene	208	81.4-117	S	%REC	2	6/17/2008 3:25:07 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	690	6.0		mg/Kg	20	6/18/2008 10:09:00 AM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	17000	1000		mg/Kg	50	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	Bottom of Pit #1
Lab Order:	0806222	**Collection Date:**	6/12/2008 2:31:00 PM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-05	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		mg/Kg	10	6/17/2008 3:55:14 PM
Toluene	ND	0.50		mg/Kg	10	6/17/2008 3:55:14 PM
Ethylbenzene	ND	0.50		mg/Kg	10	6/17/2008 3:55:14 PM
Xylenes, Total	4.6	1.0		mg/Kg	10	6/17/2008 3:55:14 PM
Surr: 4-Bromofluorobenzene	145	81.4-117	S	%REC	10	6/17/2008 3:55:14 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	230	1.5		mg/Kg	5	6/17/2008 8:04:16 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	43000	2000		mg/Kg	100	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	Bottom of Pit #2
Lab Order:	0806222	**Collection Date:**	6/12/2008 2:33:00 PM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-06	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.50		mg/Kg	10	6/17/2008 5:25:19 PM
Toluene	ND	0.50		mg/Kg	10	6/17/2008 5:25:19 PM
Ethylbenzene	ND	0.50		mg/Kg	10	6/17/2008 5:25:19 PM
Xylenes, Total	4.0	1.0		mg/Kg	10	6/17/2008 5:25:19 PM
Surr: 4-Bromofluorobenzene	133	81.4-117	S	%REC	10	6/17/2008 5:25:19 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	230	1.5		mg/Kg	5	6/17/2008 8:21:41 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	45000	2000		mg/Kg	100	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	Bottom of Pit 3
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:15:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-07	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 5:55:33 PM
Toluene	0.14	0.10		mg/Kg	2	6/17/2008 5:55:33 PM
Ethylbenzene	0.36	0.10		mg/Kg	2	6/17/2008 5:55:33 PM
Xylenes, Total	4.3	0.20		mg/Kg	2	6/17/2008 5:55:33 PM
Surr: 4-Bromofluorobenzene	214	81.4-117	S	%REC	2	6/17/2008 5:55:33 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	780	6.0		mg/Kg	20	6/18/2008 10:26:25 AM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	19000	1000		mg/Kg	50	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	Bottom of Pit #4
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:17:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-08	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 6:25:33 PM
Toluene	0.31	0.10		mg/Kg	2	6/17/2008 6:25:33 PM
Ethylbenzene	ND	0.10		mg/Kg	2	6/17/2008 6:25:33 PM
Xylenes, Total	9.9	0.20		mg/Kg	2	6/17/2008 6:25:33 PM
Surr: 4-Bromofluorobenzene	288	81.4-117	S	%REC	2	6/17/2008 6:25:33 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	1300	15		mg/Kg	50	6/18/2008 10:43:49 AM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	23000	1000		mg/Kg	50	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	South Wall #1
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:22:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-09	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 6:55:39 PM
Toluene	ND	0.10		mg/Kg	2	6/17/2008 6:55:39 PM
Ethylbenzene	ND	0.10		mg/Kg	2	6/17/2008 6:55:39 PM
Xylenes, Total	6.0	0.20		mg/Kg	2	6/17/2008 6:55:39 PM
Surr: 4-Bromofluorobenzene	265	81.4-117	S	%REC	2	6/17/2008 6:55:39 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	570	1.5		mg/Kg	5	6/17/2008 10:23:33 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	23000	1000		mg/Kg	50	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	South Wall #2
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:26:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-10	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/17/2008 7:25:43 PM
Toluene	ND	0.050		mg/Kg	1	6/17/2008 7:25:43 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/17/2008 7:25:43 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/17/2008 7:25:43 PM
Surr: 4-Bromofluorobenzene	115	81.4-117		%REC	1	6/17/2008 7:25:43 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	200	1.5		mg/Kg	5	6/17/2008 10:40:58 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	3000	400		mg/Kg	20	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	East Wall 1
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:25:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-11	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 7:55:58 PM
Toluene	ND	0.10		mg/Kg	2	6/17/2008 7:55:58 PM
Ethylbenzene	ND	0.10		mg/Kg	2	6/17/2008 7:55:58 PM
Xylenes, Total	ND	0.20		mg/Kg	2	6/17/2008 7:55:58 PM
Surr: 4-Bromofluorobenzene	104	81.4-117		%REC	2	6/17/2008 7:55:58 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	460	1.5		mg/Kg	5	6/17/2008 10:58:23 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	23000	1000		mg/Kg	50	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	East Wall 2
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:20:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-12	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 8:25:54 PM
Toluene	ND	0.10		mg/Kg	2	6/17/2008 8:25:54 PM
Ethylbenzene	ND	0.10		mg/Kg	2	6/17/2008 8:25:54 PM
Xylenes, Total	ND	0.20		mg/Kg	2	6/17/2008 8:25:54 PM
Surr: 4-Bromofluorobenzene	108	81.4-117		%REC	2	6/17/2008 8:25:54 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	460	1.5		mg/Kg	5	6/17/2008 11:15:48 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	25000	1000		mg/Kg	50	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	North Wall 1
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:30:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-13	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	2	6/17/2008 8:55:57 PM
Toluene	ND	0.10		mg/Kg	2	6/17/2008 8:55:57 PM
Ethylbenzene	ND	0.10		mg/Kg	2	6/17/2008 8:55:57 PM
Xylenes, Total	0.36	0.20		mg/Kg	2	6/17/2008 8:55:57 PM
Surr: 4-Bromofluorobenzene	125	81.4-117	S	%REC	2	6/17/2008 8:55:57 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	580	1.5		mg/Kg	5	6/17/2008 11:33:13 PM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	21000	1000		mg/Kg	50	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *18-Jun-08*

CLIENT:	Intera, Inc.	**Client Sample ID:**	North Wall #2
Lab Order:	0806222	**Collection Date:**	6/13/2008 10:35:00 AM
Project:	Millard Deck Estate	**Date Received:**	6/16/2008
Lab ID:	0806222-14	**Matrix:**	MEOH (SOIL)

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	6/17/2008 9:25:57 PM
Toluene	ND	0.050		mg/Kg	1	6/17/2008 9:25:57 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/17/2008 9:25:57 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/17/2008 9:25:57 PM
Surr: 4-Bromofluorobenzene	94.2	81.4-117		%REC	1	6/17/2008 9:25:57 PM
EPA METHOD 9056A: ANIONS						Analyst: **SLB**
Chloride	61	1.5		mg/Kg	5	6/18/2008 11:01:13 AM
EPA METHOD 418.1: TPH						Analyst: **JAT**
Petroleum Hydrocarbons, TR	480	20		mg/Kg	1	6/16/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Intera, Inc.
Project: Millard Deck Estate **Work Order:** 0806222

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 9056A: Anions									
Sample ID: MB-16231		*MBLK*			Batch ID: **16231**		Analysis Date:		6/17/2008 5:10:12 PM
Chloride	ND	mg/Kg	0.30						
Sample ID: LCS-16231		*LCS*			Batch ID: **16231**		Analysis Date:		6/17/2008 5:27:35 PM
Chloride	14.67	mg/Kg	0.30	97.8	90	110			
Method: EPA Method 418.1: TPH									
Sample ID: MB-16215		*MBLK*			Batch ID: **16215**		Analysis Date:		6/16/2008
Petroleum Hydrocarbons, TR	ND	mg/Kg	20						
Sample ID: LCS-16215		*LCS*			Batch ID: **16215**		Analysis Date:		6/16/2008
Petroleum Hydrocarbons, TR	96.54	mg/Kg	20	96.5	82	114			
Sample ID: LCSD-16215		*LCSD*			Batch ID: **16215**		Analysis Date:		6/16/2008
Petroleum Hydrocarbons, TR	97.90	mg/Kg	20	97.9	82	114	1.40	20	
Method: EPA Method 8021B: Volatiles									
Sample ID: 0806222-14A MSD		*MSD*			Batch ID: **R28968**		Analysis Date:		6/17/2008 10:26:07 PM
Benzene	1.001	mg/Kg	0.050	100	78.8	132	2.48	27	
Toluene	0.9960	mg/Kg	0.050	99.6	78.9	112	4.33	19	
Ethylbenzene	1.011	mg/Kg	0.050	101	69.3	125	4.12	10	
Xylenes, Total	3.121	mg/Kg	0.10	104	73	128	4.37	13	
Sample ID: 5ML RB		*MBLK*			Batch ID: **R28968**		Analysis Date:		6/17/2008 8:49:55 AM
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: 100NG BTEX LCS		*LCS*			Batch ID: **R28968**		Analysis Date:		6/17/2008 10:56:26 PM
Benzene	1.002	mg/Kg	0.050	100	78.8	132			
Toluene	1.024	mg/Kg	0.050	102	78.9	112			
Ethylbenzene	1.021	mg/Kg	0.050	102	69.3	125			
Xylenes, Total	3.082	mg/Kg	0.10	103	73	128			
Sample ID: 0806222-14A MS		*MS*			Batch ID: **R28968**		Analysis Date:		6/17/2008 9:56:03 PM
Benzene	1.026	mg/Kg	0.050	103	78.8	132			
Toluene	1.040	mg/Kg	0.050	104	78.9	112			
Ethylbenzene	1.053	mg/Kg	0.050	105	69.3	125			
Xylenes, Total	3.260	mg/Kg	0.10	109	73	128			

Qualifiers:

- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name INT | Date Received: 6/16/2008

Work Order Number 0806222 | Received by: TLS

Sample ID labels checked by: TS (Initials)

Checklist completed by: Tanya Shomin (Signature) 6/16/08 (Date)

Matrix: | Carrier name Client drop-off

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?	6°	*<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: INTERA, INC

Address: 6000 Uptown Blvd Ste 100
ABQ, NM 87110

Phone #: 505 246 1600

email or Fax#: 505 246 2600

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☑ Rush 48hr

Project Name: MILLARD DECK ESTATE

Project #:

Project Manager: JOE GALEMORE

Sampler: GARY DESSELLE / D. LAWLER

On Ice: ☑ Yes ☐ No

Sample Temperature: 9

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0806022	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cl - 9056A	BTEX 8021			Air Bubbles (Y or N)
6/12/08	1007	West Wall 6' BGS #1	40z, 2 MeOH	Ice/MeOH	1				X								X	X			
6/12/08	1009	West Wall 6' BGS #2			2				X								X	X			
6/12/08	1548	West Wall 12' BGS #1			3				X								X	X			
6/12/08	1550	West Wall 12' BGS #2			4				X								X	X			
6/12/08	1431	Bottom of Pit #1			5				X								X	X			
6/12/08	1433	Bottom of Pit #2			6				X								X	X			
6/13/08	1015	Bottom of Pit #3			7				X								X	X			
6/13/08	1017	Bottom of Pit #4			8				X								X	X			
6/13/08	1022	South Wall #1			9				X								X	X			
6/13/08	1026	South Wall #2			10				X								X	X			
6/13/08	1025	East Wall 1			11				X								X	X			
6/13/08	1020	East Wall 2			12				X								X	X			

Date:	Time:	Relinquished by:	Received by:	Remarks:
6/16/08	0935		6/16/08 James Thomas 935	
Date:	Time:	Relinquished by:	Received by:	

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.

Chain-of-Custody Record

Client: INTERA, INC

Address: 6000 Uptown Blvd Ste 100 ABQ, NM 87110

Phone #: 505 246 1600

email or Fax#: 505 246 2600

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ ~~Rush~~ 48 hr

Project Name: MILLARD DECK ESTATE

Project #:

Project Manager: JOE GALEMORE

Sampler: GARY DEESE / D. LAWLER

On Ice: ☑ Yes ☐ No

Sample Temperature: LD

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0806222	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Cl - 9056A	BTEX 8021			Air Bubbles (Y or N)
6/2/08	1030	North Wall 1	40z 2 MeOH	Ice/MeOH	13				X								X	X			
6/3/08	1035	North Wall #2	40z 2 MeOH	Ice/MeOH	14				X								X	X			

Date:	Time:	Relinquished by:	Received by:	Date:	Time:
6/6/08	0935		6/6/08 0935		
Date:	Time:	Relinquished by:	Received by:		

Remarks:

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.

Appendix E

Reseeding Specifications

Form No. A-1088
Rev. 2

New Mexico Department of Transportation
MATERIALS CERTIFICATE OF COMPLIANCE

1 PROJECT NUMBER: Interra Hobbs
2 CONTRACTOR: Windswept Organix NM
3 DATE: 6-27-08
4 ITEM No. & DESCRIPTION: Wood Fiber Mulch
5 QUANTITY: 3000 lbs. per acre

6 SHIPMENT NUMBER: NA
7 *HEAT No. LOT No. BATCH No. : NA
8 *SEAL NUMBER: NA
9 MANUFACTURER OF MATERIAL: Conwed

As the Prime Contractor on this Project, I Certify the Following:

a. That the material described in this document comply with the Department's Standard Specifications for Highway and Bridge Construction.

b. That when required, all Manufacturing Processes associated with the production of steel and iron materials comply with Subsection 106.4, Certificate of Compliance reference for domestic materials, of the Department's Standard Specifications for Highway and Bridge Construction, 2000 Edition, or that special waivers have been granted.

c. That Mill Test Reports, Manufacturer's Certificates of Compliance, and other pertinent documents concerning material incorporated into these items are on file at the Contractor's Office and will be made available to Department Personnel upon request. These documents will be held on file for three (3) years following Final Acceptance of the Project.

PRINTED NAME OF COMPANY OFFICIAL: Kim Garcia

SIGNATURE OF COMPANY OFFICIAL: Kim Garcia

TITLE: Office Manager

* THE NUMBER PLACED IN THESE SECTIONS WILL DEPEND ON THE TYPE OF MATERIAL BEING CERTIFIED

MATERIAL SAFETY DATA SHEET

CONWED FIBERS® HYDRO MULCH® 1000 w/SlikShot™

PROFILE PRODUCTS LLC
750 LAKE COOK ROAD - SUITE 440
BUFFALO GROVE, IL 60089

847-215-1144
800-366-1180
FAX 847-215-0577

HAZARDOUS COMPOUNDS	CAS NO	NIOSH	ACGIH	IDLH MG/CU METER
POPLAR, PINE & OAK WOOD DUST			5 MG / CUBIC METER	

HAZARDOUS RATINGS

HEALTH	FLAMMABILITY	REACTIVITY	DUST EXPLOSION
2	1	0	1

PHYSICAL / CHEMICAL CHARACTERISTICS

BOILING POINT	N/A	VAPOR PRESSURE	N/A
SPECIFIC GRAVITY	0.6444	VAPOR DENSITY	N/A
MELTING POINT	N/A	EVAPORATIVE RATE BuAc=1	N/A
SOLUBILITY IN WATER		"SLIGHT TO INSOLUBLE"	
APPEARANCE AND ODOR		"DARK GREEN WITH WOOD ODOR"	

FIRE AND EXPLOSION HAZARD DATA N/A **"NOT APPLICABLE"**

FLASH POINT	N/A	FLAMMABLE LIMITS	N/A	LEL	UEL
EXTINGUISHING MEDIA			"WATER"		
FIRE FIGHTING PROCEDURES			"NORMAL – AVOID FUMES (IF ANY)"		
UNUSUAL FIRE AND EXPLOSION HAZARDS			"DUST MAY FORM AN EXPLOSIVE MIXTURE IN AIR"		

REACTIVITY DATA

STABILITY	UNSTABLE	CONDITIONS TO AVOID	
STABLE		YES	"AVOID OXIDIZERS / REDUCERS"
INCOMPATIBLE MATERIALS		"AVOID STRONG OXIDIZERS / REDUCERS"	

MATERIAL SAFETY DATA SHEET

CONWED FIBERS® HYDRO MULCH® 1000 w/SlikShot™

PAGE 2

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS **NONE**

HAZARDOUS POLYMERIZATION	MAY OCCUR? "WILL NOT OCCUR"	CONDITIONS TO AVOID "WILL NOT OCCUR"	NONE

HEALTH HAZARDS DATA

ROUTE OF ENTRY: INHALATION? X SKIN? X INGESTION? X

HEALTH HAZARD: AVOID INHALATION OF ANY DUST, AVOID SKIN CONTACT, PROTECT EYES, AVOID INGESTION AND PROLONGED EXPOSURE.

OBSERVE FOR DEVELOPMENT OF ALLERGENIC REACTIONS AND CALL A PHYSICIAN

CARCINOGENICITY:	**NPT?**	**IARC MONOGRAPHS?**	**OSHA REGULATED?**
	"NO"	"NO"	"NO"

SYMPTOMS OF EXPOSURE IRRITATES SKIN, EYE IRRITATION; BURNING, TEARING, SWELLING.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

ALLERGIES, DERMATITIS

EMERGENCY FIRST AID PROCEDURES: USE WATER TO CLEANSE AREA, EYES FLUSH WITH WATER, CONTACT PHYSICIAN IF ALLERGIC REACTIONS OCCUR WITHIN 0-2 HOURS.

PRECAUTIONS FOR SAFE HANDLING AND USE

GOGGLES FOR EYES, GLOVES FOR HANDS, WEAR CLOTHING TO PREVENT SKIN CONTACT

STEPS TO BE TAKEN IN CASE OF SPILL

SPRINKLE SPILLAGE COMPOUND TO MINIMIZE DUST AND SWEEP UP SPILLED DEBRIS, ABSORB AND SWEEP UP / COLLECT; AVOID INHALATION AND / OR INGESTION OF ANY DUST.

WASTE DISPOSAL METHOD NO SPECIAL DISPOSAL METHOD STANDARD LANDFILL

DISPOSAL ACCORDING TO LOCAL, STATE AND FEDERAL ENVIRONMENTAL REQUIREMENTS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

"NO SPECIAL REQUIREMENTS EXCEPT FOR CONTAINER DAMAGE". 7-1-03

CURTIS & CURTIS Inc.

4500 N. PRINCE
PHONE (505) 562-4758 / FAX (505) 763-4213
CLOVIS, NEW MEXICO 88101

IRRIGATED PASTURE GRASSES
MOUNTAIN PASTURE GRASSES
NATIVE PASTURE GRASSES
SORGHUMS

CERTIFIED SEED SPECIALISTS

YARD AND PLAYGROUND GRASSES
GOLF COURSE GRASSES
ALFALFA / CLOVERS
FORAGES

CERTIFICATION

June 16, 2008

Windswept Organix
120 Old Highway 66
Albuquerque, NM 87123

2 Acres Custom Mix
Job: Hobbs Reclamation

TO WHOM IT MAY CONCERN:

CURTIS & CURTIS, INC. CERTIFIES THAT EACH CONTAINER OF SEED IS MIXED AND LABELED IN ACCORDANCE WITH THE FEDERAL SEED ACT AND IS AT LEAST EQUAL TO THE REQUIREMENTS INDICATED BELOW:

KIND	ORIGIN	LOT#	PURITY OF MIX	GERM PURITY	GERM DORMANT	GERM = PLS%
Sideoats Grama Vaughn	Texas	15733	27.60%	83.17%	82.00%	68.20%
Sand Dropseed Not Stated	Kansas	15968	06.02%	96.77%	94.00%	90.96%
Little Bluestem Aldous	Kansas	15925	23.91%	64.12%	71.00%(TZ)	45.53%
Indiangrass Cheyenne	Texas	15317	14.32%	85.67%	79.00%	67.68%
Switchgrass Blackwell	Texas	15476	06.58%	99.75%	86.00%	85.79%

Sincerely,

Leona Fleming

Leona Fleming

CURTIS & CURTIS, Inc.

4500 N. PRINCE
PHONE (505) 762-4759 / FAX (505) 763-4213
CLOVIS, NEW MEXICO 88101

IRRIGATED PASTURE GRASSES
MOUNTAIN PASTURE GRASSES
NATIVE PASTURE GRASSES
SORGHUMS

GRASS SEED SPECIALISTS

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Sincerely,

Leona Fleming

Leona Fleming

Curtis & Curtis Seed
4500 N. Prince
Clovis, NM 88101
Phone: 505-762-4759

Windswept Organix
2-1 Acre Bags @ 17.68 Bulk Pounds
2 Acre Custom Seed Mix
Job: Hobbs Reclamation

Lot#: M-8248

Item	Origin	Purity	Germ	Dormant	Germ & Dormant	Test Date	Total PLS Pounds
Sideoats Grama Vaughn	Texas	27.60%	77.00%	05.00%	82.00%	02/08	08.00
Sand Dropseed Not Stated	Kansas	06.02%	62.00%	32.00%	94.00%	05/08	02.00
Little Bluestem Aldous	Kansas	23.91%	71.00%	00.00%	71.00%(TZ)	11/07	06.00
Indiangrass Cheyenne	Texas	14.32%	14.00%	65.00%	79.00%	06/08	04.00
Switchgrass Blackwell	Texas	06.58%	48.00%	38.00%	86.00%	02/08	02.00

Other Crop: 00.49%
Weed Seed: 00.21%
Inert Matter: 20.87%

There Are 2 Bags For This Mix
This Bag Weighs 17.68 Bulk Pounds
Use This Bag For 1 Acre

Total Bulk Pounds: 35.36