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REPORTS

DATE:

1995

CURA INC.
Environmental Consultants, Engineers & Scientists
3001 North Big Spring, Suite 101 • Midland, Texas 79705 • 915/570-8408 • FAX 570-8409

October 28, 1993

Mr. John Hite
Shell Pipe Line Company
Two Shell Plaza
P.O. Box 2099
Houston, Texas 77252-2099

RE: PHASE III SUBSURFACE INVESTIGATION
LEA STATION
LEA COUNTY, NEW MEXICO

CURA PROJECT NO. 15-93677.3

Mr. Hite:

CURA, Inc. has completed the Phase III Subsurface Investigation at the above-referenced facility. As outlined in Shell Pipe Line Corporation's Scope of Work dated August 10, 1993, the field investigation included the drilling and sampling of four soil borings (B-13, B-14, B-15, and B-16) to an approximate depth of 30 feet. Four additional borings were drilled to an approximate depth of 40 feet and converted to monitor wells (MW-8, MW-9, MW-10, and MW-11). The borings were completed to delineate the hydrocarbon-impacted soils and groundwater previously identified at the site in borings B-1 through B-12 and monitor wells MW-1 through MW-7.

Two general areas, one in the east and the other in the western half of the site, were previously identified as hydrocarbon-impacted areas by elevated total petroleum hydrocarbon (TPH) concentrations in the soils (>100 ppm TPH). Hydrocarbon-impacted soils in the western portion of the site ranged in depth from approximately 3 feet in boring B-3 to 27 feet (depth to groundwater) in B-8, B-11, and MW-5. Hydrocarbon-impacted soils in the eastern portion of the site ranged from a depth of 3 feet in a majority of the borings to 12 feet in monitor well MW-4. Hydrocarbon-impacted groundwater was previously identified in MW-1, MW-2, and MW-3 which are located in the northeast portion of the site.

SOIL BORING OPERATIONS AND ANALYTICAL RESULTS

On September 22 and 23, 1993, four soil borings (B-13, B-14, B-15, and B-16) and four monitor wells (MW-8, MW-9, MW-10, and MW-11) were drilled to depths ranging from 27 feet to 40 feet using an air rotary drilling rig. Borings B-13, B-14, and monitor well MW-8 were placed north (upgradient) of the previously identified hydrocarbon-impacted soils in the western portion of the site. Borings B-15, B-16, MW-9, and MW-10 were located south and east of the hydrocarbon-impacted soils and groundwater in the eastern portion of the site to delineate the downgradient extent of hydrocarbon impact. Boring MW-11 was placed upgradient to monitor well MW-3 to further delineate the extent of hydrocarbon-impacted groundwater in the northeastern portion of the site (Appendix A, Figure 1).

The soils encountered during the boring operations consisted of 1 foot to 5 feet of brown to gray silty sands (SM) underlain by multicolored calcareous to slightly calcareous sands to a depth of approximately 41 feet (maximum boring depth).

Based on the data obtained, the extent of hydrocarbon-impacted soils in the western portion of the site is limited to an area approximately 250 feet by 400 feet with the greatest hydrocarbon concentration adjacent to boring B-11, MW-5, and MW-8. The extent of hydrocarbon-impacted soils identified in the eastern portion of the site consists of a 3 foot deep area covering approximately 400 feet by 200 feet. However, hydrocarbon-impacted soils extend to a depth of 12 feet near boring MW-4. Monitor well MW-11 identified hydrocarbon-impacted soils in the northcentral portion of the site from a depth of approximately 10 feet to top of groundwater at 31 feet. However, no phase separated hydrocarbons (PSH) was observed in MW-11 during drilling operations. An area containing hydrocarbon-impacted soils in the two foot interval above groundwater was identified in borings B-15 and MW-2. The area is approximately 50 feet wide and extends approximately 200 feet downgradient (southeast) of the sump and pumps in the eastern portion of the site.

Groundwater was encountered at depths ranging from 26 feet to 31 feet during drilling operations. The boring logs are included in Appendix B and provide a more detailed description of the subsurface conditions encountered at the site. Soil samples were collected intermittently using a split spoon sampling device. The samples were field screened with a Century 128 organic vapor analyzer (OVA). The soil samples which registered the highest OVA reading, had the greatest hydrocarbon odors or staining, and the samples from the greatest depth above groundwater were submitted to the laboratory to be analyzed for TPH and BTEX.

A complete listing of the OVA readings and the soil sample analytical results is provided in Table 1 (Appendix C). Hydrocarbon concentrations of the subsurface soils are illustrated on the site map (Appendix A, Figure 1). The laboratory reports and chains-of-custody are included in Appendix D.

MONITOR WELL OPERATIONS AND ANALYTICAL RESULTS

Borings MW-8 was drilled to a depth of 38 feet and converted to a monitor well to delineate groundwater conditions south of Tank No. 1843. Hydrocarbon-impacted soils from near surface to groundwater were identified in this vicinity during the Phase II investigation. Monitor wells MW-9 and MW-10 were placed south of previously identified hydrocarbon-impacted soils and in a downgradient position from the hydrocarbon-impacted groundwater previously identified in monitor wells MW-1 and MW-2 along the southeastern portion of the site. Monitor well MW-11 was located upgradient to MW-3 to delineate previously identified hydrocarbon-impacted groundwater in that monitor well.

The monitor wells were constructed of 4 inch diameter schedule 40 PVC well casing and screen. The screened portion of the monitor wells were surrounded by a sandpack which was capped with a bentonite seal (minimum thickness of 4 feet). The annular space above the bentonite seal was then grouted to surface. A 3-foot by 3-foot concrete pad and an above grade steel monument pipe well cover were then installed at the surface. The boring logs in Appendix B provide a more detailed description of the screened intervals and well construction materials used.

The monitor wells were gauged on September 28, 1993 to determine the presence of PSH, groundwater elevation and gradient. Depth to groundwater on site ranged from 26 feet to 31 feet below ground surface with the apparent groundwater gradient toward the southeast. No PSH was observed in the monitor wells with the exception of 0.04-inch recorded in monitor well MW-8. Monitor well MW-8 is located approximately 200 feet downgradient (southeast) from Tank No. 1843. The western and southern extent of the PSH identified in MW-8 is limited to a radius of less than 300 feet from Tank No. 1843 based on field observations and analytical data from borings B-14, MW-6, and MW-7.

On September 30, 1993, groundwater samples obtained from monitor wells MW-9, MW-10, and MW-11 recorded benzene and total dissolved BTEX levels ranging from less than the method detection limit of 0.001 ppm in monitor well MW-9 to 0.24 and 0.63 ppm, respectively, in MW-11. Monitor well MW-8 was not sampled due to the presence of PSH. Based on the southeasterly groundwater gradient and water analytical results, offsite impact to groundwater downgradient from the site is not probable. Possible source areas for the elevated hydrocarbon levels in MW-8 include Tank 1843 and the associated piping. Possible source areas for the elevated hydrocarbon levels in monitor wells MW-11 and MW-3 include subsurface crude pipelines and the off-site tank batteries north of the site.

A dissolved hydrocarbon concentration map is presented in Appendix A (Figure 3) and depicts the distribution of groundwater BTEX and TPH concentrations. The water analytical results are summarized in Appendix C (Table 3). Laboratory reports and chains-of-custody are included in Appendix D.

CONCLUSIONS

- Field observations, OVA readings and soil sample analytical results indicate three hydrocarbon-impacted areas are present on site, one in the eastern portion, one in the northcentral portion, and one in the western portion of the site.

- The extent of hydrocarbon-impact in the eastern portion of the site appears to extend from the abandoned water well in the northeast portion of the site to just south of monitor wells MW-4 and MW-2. Depth of soil impact extends from approximately 3 feet below ground surface in the vicinity of borings B-5, B-6, and B-7 to a depth of 15 feet near monitor well MW-4.

- The extent of hydrocarbon-impacted soils and groundwater in the western portion of the site appears to be limited to the area south and southeast of Tank No. 1843 and is confined to within 300 feet of the tank. Depth of soil impact extends from approximately 30 feet below ground surface along the berm of Tank No. 1843 to less than 1 foot just north of monitor wells MW-6 and MW-7. Groundwater impact appears to extend from the PSH observed in monitor well MW-8 southward to the sump area just north of monitor wells MW-6 and MW-7. Probable source area is Tank No. 1843 and/or the associated subsurface piping.

- Hydrocarbon-impacted soils extending from near surface to groundwater at 31 feet were identified in the northcentral portion of the site in the vicinity of monitor well MW-11. The horizontal extent of this impacted area is unknown. Possible sources include subsurface crude lines and the offsite tank batteries located immediately north and upgradient to monitor well MW-11.

- The extent of hydrocarbon-impacted groundwater in the northcentral and eastern portions of the site appears limited to the vicinity of monitor well MW-11 and extends to the north and west of monitor wells MW-4, MW-9, and MW-10. The relative concentrations of hydrocarbons in monitor wells MW-3 and MW-11 indicate probable source area to the north (upgradient) which includes subsurface crude pipelines and the off-site tank batteries.

RECOMMENDATIONS

Feasibility testing is needed to evaluate soil and groundwater remedial methods for implementation on the site. Testing should evaluate potential soil vapor extraction/sparging, groundwater recovery and in situ/exsitu enhanced bioremediation.

CURA will present a workplan for additional activities as requested. CURA appreciates the opportunity to provide you with our professional consulting services. If you have any questions, please do not hesitate to contact us.

Respectively,
CURA, Inc.

F. Wesley Root
Environmental Geologist

for Greg C. Walterscheid, R.E.M., C.P.G.
Branch Manager - Midland

FWR/chs

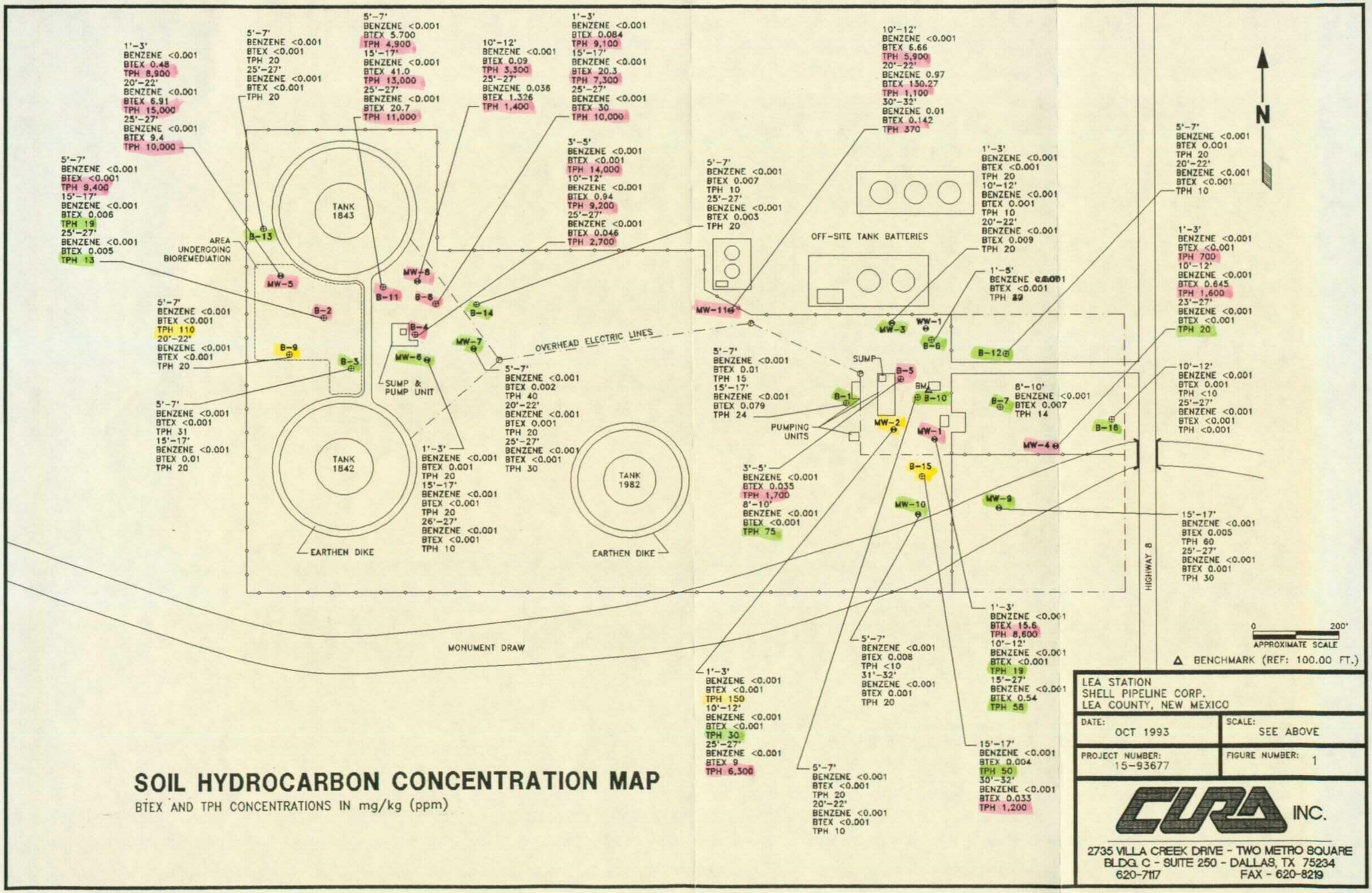
Attachments

APPENDIX A

FIGURES

SOIL HYDROCARBON CONCENTRATION MAP

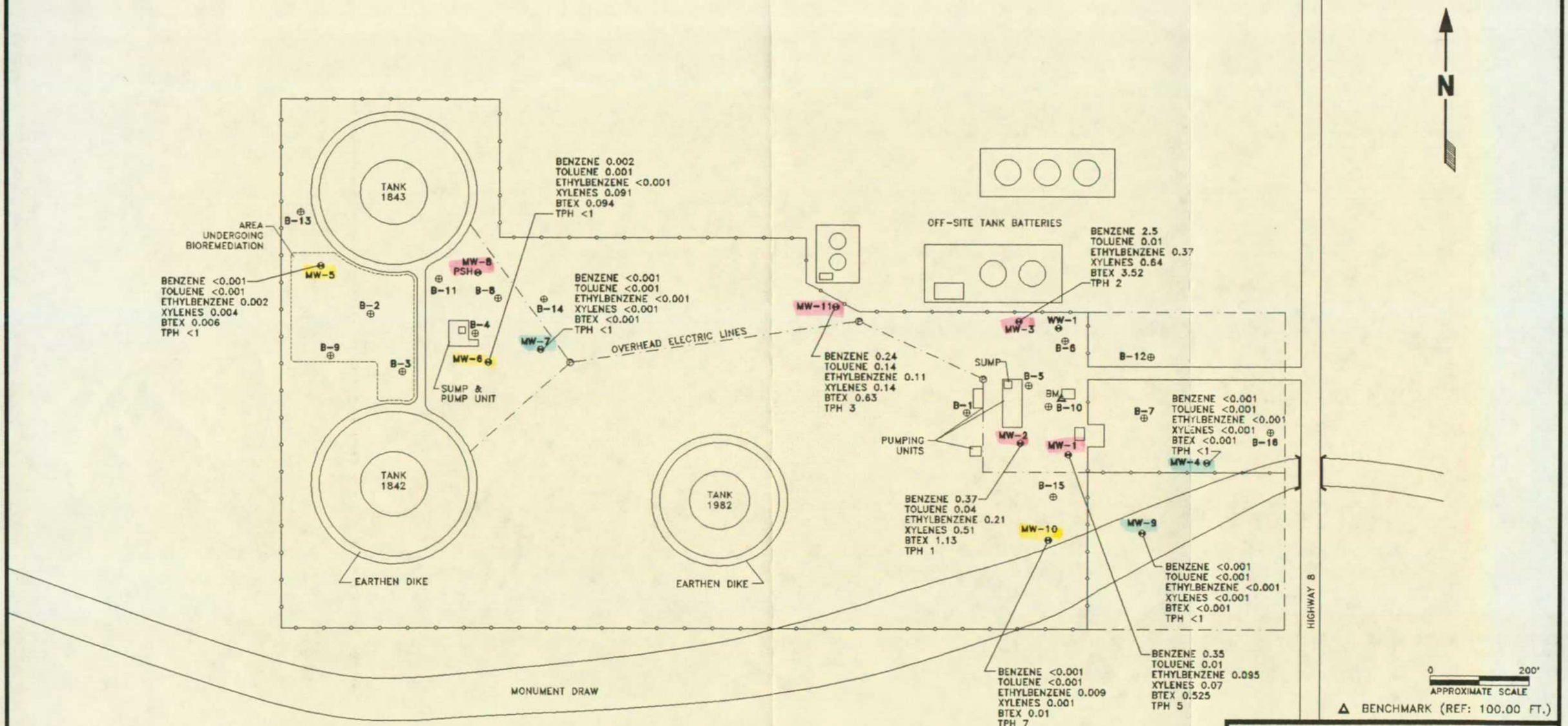
BTEX AND TPH CONCENTRATIONS IN mg/kg (ppm)



LEA STATION
SHELL PIPELINE CORP.
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
OCT 1993	SEE ABOVE
PROJECT NUMBER: 15-93677	FIGURE NUMBER: 1

CURA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219



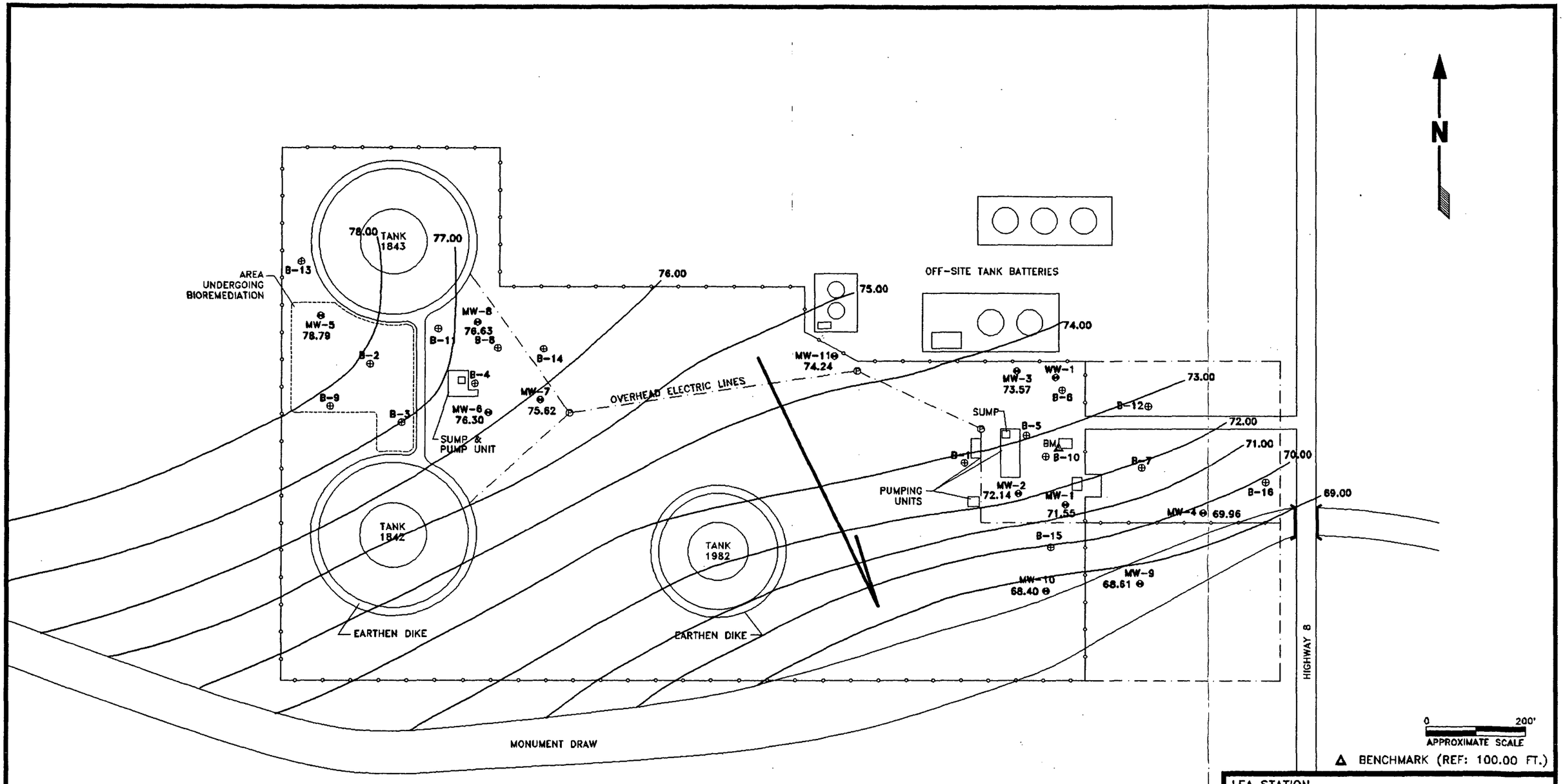
DISSOLVED HYDROCARBON MAP

RED NUMBERS INDICATE HYDROCARBON CONCENTRATIONS IN mg/l (ppm)
MW-1 THROUGH MW-7 SAMPLED ON 02/16/93
MW-8 THROUGH MW-11 SAMPLED ON 09/28/93

LEA STATION
SHELL PIPELINE CORP.
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
OCT 1993	SEE ABOVE
PROJECT NUMBER: 15-93677	FIGURE NUMBER: 2

CURA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219



GROUNDWATER GRADIENT MAP

-WATER LEVELS OBTAINED 09/28/93
-CONTOUR INTERVAL = 1.00 FEET

LEA STATION
SHELL PIPELINE CORP.
LEA COUNTY, NEW MEXICO

DATE:	SCALE:
OCT 1993	SEE ABOVE
PROJECT NUMBER: 15-93677	FIGURE NUMBER: 3

CURA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
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APPENDIX B

SOIL BORING LOGS

CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: B-13	Date Drilled: 09/22/93
Project: LEA STATION LEA COUNTY, NEW MEXICO -	Depth of Boring: 32 FEET	Diameter of Boring: 5 1/8 INCHE
	Depth of Well: -	Diameter of Screen: -
Drilling Co: HI PLAINS DRILLING	Length of Screen: -	Diameter of Casing: -
Driller: B.S.	Length of Casing: -	Slot Size: -
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: GROUT

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Brown medium-grained SAND (SM)					
2.5	White calcareous SAND (caliche)					
5.0	White fine-grained SAND (SW)	1	SS	<1	■	Benzene <0.001 mg/kg BTEX <0.001 mg/kg TPH=20 mg/kg
7.5						
10.0	Gray CLAY (CH)	2	SS	<1		
12.5	Brown & white mottled fine grained slightly calcareous SAND (SM)					
15.0		3	SS	<1		
17.5						
20.0	Red-brown calcareous CLAY (caliche)	4	SS	<1		
22.5						
25.0	Gray-white calcareous SAND (caliche)	5	SS	1	■	Benzene <0.001 mg/kg BTEX <0.001 mg/kg TPH=20 mg/kg
27.5						
30.0		6	SS	<1		▽Water @ 30.5'
	Bottom of boring @ 32.0 feet					

SS-Driven Split Spoon
ST-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core
THD-Texas Highway Department Cone
CT-5' Continuous Sampler

ABBREVIATIONS AND SYMBOLS

HSA-Hollow Stem Augers
CFA-Continuous Flight Augers
DC-Driving Casing
MD-Mud Drilling

WATER LEVEL
▽ At Completion
▼ After Hours
● Water on Rods

■ Sample submitted to lab
Bottom Cap
Sand Pack
Bentonite Seal
Factory-Slotted Well Screen
Well Casing
Volclay Grout Seal

CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: B-14	Date Drilled: 09/22/93
Project: LEA STATION LEA COUNTY, NEW MEXICO -	Depth of Boring: 27 FEET	Diameter of Boring: 5 1/8 INCHES
	Depth of Well: -	Diameter of Screen: -
Drilling Co: HI PLAINS DRILLING	Length of Screen: -	Diameter of Casing: -
Driller: B.S.	Length of Casing: -	Slot Size: -
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: GROUT

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Brown fine-grained SAND (SM)					
2.5	Buff-white calcareous SAND (caliche)					
5.0		1	SS	10	■	Benzene <0.001 mg/kg BTEX=0.007 mg/kg TPH=10 mg/kg
7.5						
10.0	White fine-grained slightly calcareous SAND (SM)	2	SS	<1		
12.5						
15.0	Light-green fine-grained SAND (SM)	3	SS	4		
17.5						
20.0		4	SS	5		
22.5						
25.0		5	SS	21	■	Benzene <0.001 mg/kg BTEX=0.003 mg/kg TPH=20 mg/kg ▽Water @ 26'
27.5	Bottom of boring @ 27.0 feet					
30.0						

SS-Driven Split Spoon
ST-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core
THD-Texas Highway Department Cone
CT-5' Continuous Sampler

ABBREVIATIONS AND SYMBOLS

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WATER LEVEL
▽ At Completion
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● Water on Rods

■ Sample submitted to lab
Bottom Cap
Sand Pack
Bentonite Seal
Factory-Slotted Well Screen
Well Casing
Volclay Grout Seal

CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: B-15	Date Drilled: 09/23/93
Project: LEA STATION LEA COUNTY, NEW MEXICO -	Depth of Boring: 32 FEET	Diameter of Boring: 5 1/8 INCHES
	Depth of Well: -	Diameter of Screen: -
Drilling Co: HI PLAINS DRILLING	Length of Screen: -	Diameter of Casing: -
Driller: B.S.	Length of Casing: -	Slot Size: -
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: GROUT

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Light-brown fine to medium-grained slightly calcareous SAND (SM)					
2.5						
5.0		1	SS	<1		
7.5						
10.0		2	SS	<1		
12.5						
15.0		3	SS	1	■	Benzene <0.001 mg/kg BTEX=0.004 mg/kg TPH=50 mg/kg
17.5						
20.0		4	SS	1		
22.5						
25.0		5	SS	<1		
27.5						
30.0	Slight hydrocarbon staining & odor	6	SS	700	■	▽Water @ 31' Benzene <0.001 mg/kg BTEX=0.033 mg/kg TPH=1,200 mg/kg
	Bottom of boring @ 32.0 feet					

SS-Driven Split Spoon
ST-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core
THD-Texas Highway Department Cone
CT-5' Continuous Sampler

ABBREVIATIONS AND SYMBOLS

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WATER LEVEL
▽ At Completion
▼ After Hours
● Water on Rods

■ Sample submitted to lab
Bottom Cap
Sand Pack
Bentonite Seal
Factory-Slotted Well Screen
Well Casing
Volclay Grout Seal

CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: B-16	Date Drilled: 09/23/93
Project: LEA STATION LEA COUNTY, NEW MEXICO -	Depth of Boring: 27 FEET	Diameter of Boring: 5 1/8 INCHES
	Depth of Well: -	Diameter of Screen: -
Drilling Co: HI PLAINS DRILLING	Length of Screen: -	Diameter of Casing: -
Driller: B.S.	Length of Casing: -	Slot Size: -
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: GROUT

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Brown fine-grained SAND (SM)					
2.5	Buff-white silty SAND (SM)					
5.0		1	SS	<1		
7.5	Buff-white fine-grained calcareous SAND (caliche)					
10.0		2	SS	<1	■	Benzene <0.001 mg/kg BTEX=0.001 mg/kg TPH <10 mg/kg
12.5						
15.0	Buff-green silty slightly calcareous SAND (SM)	3	SS	<1		
17.5						
20.0		4	SS	<1		
22.5						
25.0		5	SS	<1	■	Benzene <0.001 mg/kg BTEX=0.001 mg/kg TPH=30 mg/kg ▽Water @ 26'
27.5	Bottom of boring @ 27.0 feet					
30.0						

SS-Driven Split Spoon
ST-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core
THD-Texas Highway Department Cone
CT-5' Continuous Sampler

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WATER LEVEL
▽ At Completion
▼ After Hours
● Water on Rods

■ Sample submitted to lab
Bottom Cap
Sand Pack
Bentonite Seal
Factory-Slotted Well Screen
Well Casing
Volclay Grout Seal

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2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-8	Date Drilled: 09/22/93
Project: LEA STATION LEA COUNTY, NEW MEXICO	Depth of Boring: 40 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Brown fine-grained SAND (SM)					
2.5	Light-gray calcareous SAND (caliche)					
5.0		1	SS	4		
7.5	Brown medium-grained slightly calcareous SAND (SM)					
10.0		2	SS	200		Benzene <0.001 mg/kg BTEX=0.090 mg/kg TPH=3,300 mg/kg
12.5						
15.0		3	SS	90		
17.5						
20.0	Gray calcareous SAND (caliche)	4	SS	11		
22.5	Dark gray staining hydrocarbon odor					
25.0		5	SS	>1000		Benzene=0.036 mg/kg BTEX=1.326 mg/kg TPH=1,400 mg/kg
27.5						▽Water @ 27'
30.0						

SS-Driven Split Spoon
ST-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core
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CT-5' Continuous Sampler

ABBREVIATIONS AND SYMBOLS

HSA-Hollow Stem Augers
CFA-Continuous Flight Augers
DC-Driving Casing
MD-Mud Drilling

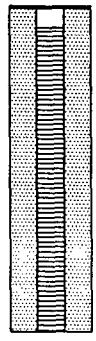
WATER LEVEL
▽ At Completion
▼ After Hours
● Water on Rods

■ Sample submitted to lab
Bottom Cap
Sand Pack
Bentonite Seal
Factory-Slotted Well Screen
Well Casing
Volclay Grout Seal

CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-8	Date Drilled: 09/22/93
Project: LEA STATION LEA COUNTY, NEW MEXICO	Depth of Boring: 40 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
30.0	Gray & red-brown mottled calcareous SAND (caliche)					
32.5						
35.0						
37.5	Bottom of boring @ 38.0 feet					
40.0						
42.5						
45.0						
47.5						
50.0						
52.5						
55.0						
57.5						
60.0						

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■ Sample submitted to lab
Bottom Cap
Factory-Slotted Well Screen
Sand Pack
Well Casing
Bentonite Seal
Volclay Grout Seal

CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-9	Date Drilled: 09/22/93
Project: LEA STATION LEA COUNTY, NEW MEXICO -	Depth of Boring: 38 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Light-brown fine to medium-grained slightly calcareous SAND (SM)					
2.5						
5.0		1	SS	<1		
7.5						
10.0		2	SS	<1		
12.5						
15.0		3	SS	1		Benzene <0.001 mg/kg BTEX=0.005 mg/kg TPH=60 mg/kg
17.5						
20.0		4	SS	<1		
22.5						
25.0		5	SS	20		Benzene=<0.001 mg/kg BTEX=0.001 mg/kg TPH=30 mg/kg
27.5	Gray-green sandy CLAY (CL)					▽Water @ 26'
30.0						

SS-Driven Split Spoon
ST-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core
THD-Texas Highway Department Cone
CT-5' Continuous Sampler

ABBREVIATIONS AND SYMBOLS

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WATER LEVEL
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▼ After Hours
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■ Sample submitted to lab
Bottom Cap
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Bentonite Seal
Factory-Slotted Well Screen
Well Casing
Volclay Grout Seal

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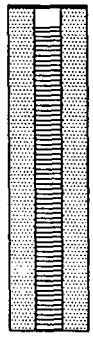
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-9	Date Drilled: 09/22/93
Project: LEA STATION LEA COUNTY, NEW MEXICO	Depth of Boring: 38 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
30.0	Gray-green sandy CLAY (CL)					
32.5						
35.0						
37.5	Bottom of boring @ 38.0 feet					
40.0						
42.5						
45.0						
47.5						
50.0						
52.5						
55.0						
57.5						
60.0						

ABBREVIATIONS AND SYMBOLS

SS-Driven Split Spoon
ST-Pressed Shelby Tube
CA-Continuous Flight Auger
RC-Rock Core
THD-Texas Highway Department Cone
CT-5' Continuous Sampler

HSA-Hollow Stem Augers
CFA-Continuous Flight Augers
DC-Driving Casing
MD-Mud Drilling

WATER LEVEL
▽ At Completion
▼ After Hours
● Water on Rods

■ Sample submitted to lab
Bottom Cap
Factory-Slotted Well Screen
Sand Pack
Well Casing
Bentonite Seal
Volclay Grout Seal

CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-10	Date Drilled: 09/23/93
Project: LEA STATION LEA COUNTY, NEW MEXICO	Depth of Boring: 38 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Brown fine-grained SAND (SM)					
2.5						
5.0	Light-brown fine to medium-grained slightly calcareous SAND (SM)	1	SS	1		Benzene <0.001 mg/kg BTEX=0.008 mg/kg TPH <10 mg/kg
7.5						
10.0		2	SS	<1		
12.5						
15.0		3	SS	<1		
17.5						
20.0		4	SS	<1		
22.5						
25.0		5	SS	<1		
27.5						
30.0						

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WATER LEVEL
▽ At Completion
▼ After Hours
● Water on Rods

■ Sample submitted to lab
Bottom Cap
Sand Pack
Bentonite Seal
Factory-Slotted Well Screen
Well Casing
Volclay Grout Seal

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BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-10	Date Drilled: 09/23/93
Project: LEA STATION LEA COUNTY, NEW MEXICO	Depth of Boring: 38 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
30.0	Brown-green fine-grained slightly calcareous SAND (SM)	6	SS	2		Benzene <0.001 mg/kg BTEX=0.001 mg/kg TPH=20 mg/kg ▽Water w/film of crude @ 31'
32.5						
35.0						
37.5	Bottom of boring @ 38.0 feet					
40.0						
42.5						
45.0						
47.5						
50.0						
52.5						
55.0						
57.5						
60.0						

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WATER LEVEL
▽ At Completion
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■ Sample submitted to lab
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CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-11	Date Drilled: 09/23/93
Project: LEA STATION LEA COUNTY, NEW MEXICO	Depth of Boring: 38 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
0	Brown fine-grained SAND (SM)					
2.5						
5.0	Buff-white calcareous SAND (caliche)	1	SS	4		
7.5						
10.0	Block-gray medium-grained SAND (SM) heavy hydrocarbon staining and odor to total depth	2	SS	600		Benzene <0.001 mg/kg BTEX=6.66 mg/kg TPH=5,900 mg/kg
12.5						
15.0		3	SS	>1000		
17.5	Green medium-grained slightly calcareous SAND (SM)					
20.0		4	SS	>1000		Benzene=970 mg/kg BTEX=130.27 mg/kg TPH=1,100 mg/kg
22.5						
25.0	Blue-gray calcareous fine-grain SAND (caliche)	5	SS	>1000		
27.5						
30.0						

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▼ After Hours
● Water on Rods

■ Sample submitted to lab
Bottom Cap
Sand Pack
Bentonite Seal
Factory-Slotted Well Screen
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CRA INC.
2735 VILLA CREEK DRIVE - TWO METRO SQUARE
BLDG. C - SUITE 250 - DALLAS, TX 75234
620-7117 FAX - 620-8219

RECORD OF SUBSURFACE EXPLORATION

Project No.: 15-93677	Well/Boring #: MW-11	Date Drilled: 09/23/93
Project: LEA STATION LEA COUNTY, NEW MEXICO -	Depth of Boring: 38 FEET	Diameter of Boring: 8 INCHES
	Depth of Well: 38 FEET	Diameter of Screen: 4 INCHES
Drilling Co: HI PLAINS DRILLING	Length of Screen: 15 FEET	Diameter of Casing: 4 INCHES
Driller: B.S.	Length of Casing: 23 FEET	Slot Size: 0.02 INCH
Drilling Method: AIR ROTARY	Logged By: F.W.R.	Well Material: SCH 40 PVC

DEPTH FEET	SOIL DESCRIPTION	SAMPLE NUMBER	SAMPLE TYPE	OVA (PPM)	WELL DESIGN	REMARKS
30.0	Blue-gray calcareous fine-grained SAND (caliche)	6	SS	>1000		Benzene=0.01 mg/kg BTEX=0.142 mg/kg TPH=370 mg/kg ▽Water @ 31'
32.5						
35.0						
37.5	Bottom of boring @ 38.0 feet					
40.0						
42.5						
45.0						
47.5						
50.0						
52.5						
55.0						
57.5						
60.0						

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Well Casing
Volclay Grout Seal

APPENDIX C

TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

Boring	Date Sampled	Sample Interval (feet)	OVA	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	TPH
B-1	12-08-92	1 - 3	2						
		5 - 7	5	0.001	0.002	0.002	0.005	0.010	15
		9 - 11	<1						
		15 - 17	<1	<0.001	0.012	0.017	0.050	0.079	24
B-2	12-08-92	1 - 3	>1000						
		5 - 7	>1000	<0.001	<0.001	<0.001	<0.001	<0.001	9,400
		10 - 12	>1000						
		15 - 17	11	<0.001	0.004	<0.001	0.002	0.006	19
		20 - 22	7						
		25 - 27	<1	<0.001	0.002	<0.001	0.003	0.005	13
B-3	12-08-92	1 - 3	8						
		5 - 7	12	<0.001	<0.001	<0.001	<0.001	<0.001	31
		10 - 12	1						
		15 - 17	<1	<0.001	0.003	0.001	0.006	0.010	20
B-4	12-08-92	1 - 3	300						
		3 - 5	800	<0.001	<0.001	<0.001	<0.001	<0.001	14,000
		10 - 12	>1000	<0.001	<0.001	<0.001	0.940	0.940	9,200
		15 - 17	>1000						
		20 - 22	200						
		25 - 27	>1000	<0.001	<0.001	<0.001	0.460	0.460	2,700
B-5	12-09-92	3 - 5	5	0.001	0.002	0.011	0.021	0.035	1,700
		5 - 7	<1						
		8 - 10	<1	<0.001	<0.001	<0.001	<0.001	<0.001	15
B-6	12-09-92	1 - 3	8						
		3 - 5	<1	<0.001	0.003	<0.001	0.004	0.007	47
B-7	12-09-92	1 - 3	8						
		5 - 7	<1						
		10 - 12	<1	<0.001	0.003	<0.001	0.004	0.007	14

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

Boring	Date Sampled	Sample Interval (feet)	OVA	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	TPH
B-8	02-01-93	1 - 3	6	<0.001	<0.001	0.053	0.031	0.084	9,100
		5 - 7	50						
		10 - 12	900						
		15 - 17	>1,000	<0.001	<0.001	14.000	6.300	20.300	7,300
		20 - 22	600						
		25 - 27	>1,000	<0.001	<0.001	13.000	17.000	30.000	10,000
		30 - 32	12						
B-9	02-01-93	1 - 3							
		5 - 7	<1	<0.001	<0.001	<0.001	<0.001	<0.001	110
		10 - 12	<1						
		15 - 17	<1						
		20 - 22	<1	<0.001	<0.001	<0.001	<0.001	<0.001	20
B-10	02-01-93	1 - 3	<1						
		5 - 7	11	<0.001	<0.001	<0.001	<0.001	<0.001	20
		10 - 12	<1						
		15 - 17	<1						
		20 - 22	<1	<0.001	<0.001	<0.001	<0.001	<0.001	10
B-11	02-03-93	1 - 3	<1						
		5 - 7	30	<0.001	0.100	1.500	4.100	5.700	4,900
		10 - 12	900						
		15 - 17	>1,000	<0.001	<0.001	25.000	16.000	41.000	13,000
		20 - 22	>1,000						
		25 - 27	>1,000	<0.001	<0.001	12.000	8.700	20.700	11,000
B-12	02-04-93	1 - 3	<1						
		5 - 7	<1	<0.001	<0.001	<0.001	0.001	0.001	20
		10 - 12	<1						
		15 - 17	<1						
		20 - 22	<1	<0.001	<0.001	<0.001	<0.001	<0.001	10
B-13	09-22-93	5 - 7	<1	<0.001	<0.001	<0.001	<0.001	<0.001	20
		10 - 12	<1						
		15 - 17	<1						
		20 - 22	<1						
		25 - 27	21	<0.001	<0.001	<0.001	<0.001	<0.001	20

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

Boring	Date Sampled	Sample Interval (feet)	OVA	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	TPH
B-14	09-22-93	5 - 7	10	<0.001	0.001	0.001	0.005	0.007	10
		10 - 12	<1						
		15 - 17	4						
		20 - 22	5						
		25 - 27	21	<0.001	0.002	<0.001	0.001	0.003	20
B-15	09-23-93	5 - 7	<1						
		10 - 12	<1						
		15 - 17	1	<0.001	<0.001	0.001	0.003	0.004	50
		20 - 22	1						
		25 - 27	<1						
		30 - 32	700	<0.001	<0.001	0.012	0.021	0.033	1,200
B-16	09-23-93	5 - 7	<1						
		10 - 12	<1	<0.001	<0.001	<0.001	0.001	0.001	<10
		15 - 17	<1						
		20 - 22	<1						
		25 - 37	<1	<0.001	<0.001	<0.001	<0.001	<0.001	<10
MW-1	12-08-92	1 - 3	700	<0.001	<0.001	7.100	8.500	15.600	8,600
		5 - 7	110						
		10 - 12	21	<0.001	<0.001	<0.001	<0.001	<0.001	19
		15 - 17	20						
		20 - 22	25						
		25 - 27	70	<0.001	0.002	0.048	0.004	0.054	58
		30 - 32	5						
		35 - 37	1						
MW-2	02-01-93	1 - 3	<1	<0.001	<0.001	<0.001	<0.001	<0.001	150
		5 - 7	<1						
		10 - 12	<1	<0.001	<0.001	<0.001	<0.001	<0.001	30
		15 - 17	<1						
		20 - 22	<1						
		25 - 27	>1,000	<0.001	<0.001	6.200	2.800	9.000	6,300

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

Boring	Date Sampled	Sample Interval (feet)	OVA	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	TPH
MW-3	02-02-93	1 - 3	<1	<0.001	<0.001	<0.001	0.001	0.001	20
		5 - 7	<1						
		10 - 12	<1	<0.001	<0.001	<0.001	0.001	0.001	10
		15 - 17	<1						
		20 - 22	1	<0.001	0.001	0.002	0.006	0.009	20
		25 - 27	No Recovery						
		27 - 30	60						
MW-4	02-02-93	1 - 3	<1	<0.001	<0.001	<0.001	<0.001	<0.001	700
		5 - 7	200						
		10 - 12	400	<0.001	0.140	0.085	0.420	0.645	1,600
		15 - 17	4						
		20 - 22	<1						
		25 - 27	<1	<0.001	<0.001	<0.001	<0.001	<0.001	20
MW-5	02-01-93	1 - 3	2	<0.001	0.014	0.140	0.340	0.494	8,900
		5 - 7	80						
		10 - 12	100						
		15 - 17	500						
		20 - 22	600	<0.001	<0.001	6.200	0.710	6.910	15,000
		25 - 27	400	<0.001	<0.001	5.900	3.500	9.400	10,000
MW-6	02-02-93	1 - 3	2	<0.001	<0.001	<0.001	0.001	0.001	20
		5 - 7	<1						
		10 - 12	<1						
		15 - 17	<1	<0.001	<0.001	<0.001	<0.001	<0.001	20
		20 - 22	<1						
		25 - 26	200						
		26 - 27	20	<0.001	<0.001	<0.001	<0.001	<0.001	10
MW-7	02-03-93	1 - 3	1						
		5 - 7	<1	<0.001	<0.001	<0.001	0.002	0.002	40
		10 - 12	<1						
		15 - 17	<1						
		20 - 22	1	<0.001	<0.001	<0.001	0.001	0.001	20

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

Boring	Date Sampled	Sample Interval (feet)	OVA	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	TPH
MW-8	09-22-93	5 - 7	4						
		10 - 12	200	<0.001				0.090	3,300
		15 - 17	90						
		20 - 22	11						
		25 - 27	<1,000	0.036				1.326	1,400
MW-9	09-22-93	5 - 7	<1						
		10 - 12	<1						
		15 - 17	1	<0.001	<0.001	0.001	0.004	0.005	60
		20 - 22	<1						
		25 - 27	20	<0.001	<0.001	<0.001	0.001	0.001	30
MW-10	09-23-93	5 - 7	1	<0.001	0.001	0.001	0.006	0.008	<10
		10 - 12	<1						
		15 - 17	<1						
		20 - 22	<1						
		25 - 27	<1						
		30 - 32	2	<0.001	<0.001	<0.001	0.001	0.001	20
MW-11	09-23-93	5 - 7	4						
		10 - 12	600	<0.001	0.160	4.700	1.800	6.660	5,900
		15 - 17	<1,000						
		20 - 22	<1,000	0.970	2.300	45.000	82.000	130.270	1,100
		25 - 27	<1,000						
		30 - 32	<1,000	0.010	0.023	0.045	0.064	0.142	370

OVA results listed in parts per million (ppm) equivalent methane.
BTEX results in mg/kg (parts per million; ppm) method detection limit listed in appendix D.
TPH results in mg/kg (parts per million; ppm) method detection limit listed in appendix D.
Analyses were conducted using EPA Method 8020 (BTEX) and EPA Method 418.1 (TPH) by SPL Environmental Laboratories.

TABLE 2
SUMMARY OF RELATIVE GROUNDWATER LEVEL ELEVATIONS AND PHASE-SEPARATED HYDROCARBON THICKNESSES
Groundwater Elevations Obtained September 28, 1993

Monitor Well	Relative Ground Surface Elevation (feet)	Relative Top of Casing Elevation (feet)*	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)**	Phase-Separated Hydrocarbon Thickness (feet)
MW-1	98.88	100.73	29.18	71.55	0.00
MW-2	100.78	102.37	30.23	72.14	0.00
MW-3	101.79	103.61	30.04	73.57	0.00
MW-4	93.80	96.08	26.12	69.96	0.00
MW-5	107.08	109.21	30.42	78.79	0.00
MW-6	103.66	106.26	29.96	76.30	0.00
MW-7	104.34	106.27	30.65	75.62	0.00
MW-8	105.52	107.44	32.81	76.63	0.04
MW-9	93.76	97.21	28.60	68.61	0.00
MW-10	99.63	102.51	34.11	68.40	0.00
MW-11	104.48	105.62	31.38	74.24	0.00

* Measured from a relative datum (benchmark = 100.00 feet). The monitor well casings were marked to provide consistent reference points for future gauging operations.
** Correction Equation for Phase-Separated Hydrocarbons: Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - [SG] [PSH Thickness])
Specific Gravity (SG) = 0.73 for gasoline, 0.85 for diesel, 0.9 for crude oil.

TABLE 3
WATER SAMPLE ANALYTICAL RESULTS

Monitor Well	Date	Benzene	Toluene	Ethyl-benzene	Xylenes	Total BTEX	TPH	TDS
WW-1	12-08-92	<0.001	<0.001	<0.001	<0.001	<0.001	5	1,800
MW-1	12-21-92	0.440	0.005	0.120	0.063	0.628	3	2,380
MW-1	02-16-93	0.350	0.010	0.095	0.070	0.525	5	
MW-2	02-16-93	0.370	0.040	0.210	0.510	1.130	1	
MW-3	02-16-93	2.500	0.010	0.370	0.640	3.520	2	
MW-4	02-16-93	<0.001	<0.001	<0.001	<0.001	<0.001	<1	
MW-5	02-16-93	<0.001	<0.001	0.002	0.004	0.006	<1	
MW-6	02-16-93	0.002	0.001	<0.001	0.091	0.094	<1	2,500
MW-7	02-16-93	<0.001	<0.001	<0.001	<0.001	<0.001	<1	
MW-8	09-30-93	PSH						
MW-9	09-30-93	<0.001	<0.001	<0.001	<0.001	<0.001	<1	2,130
MW-10	09-30-93	<0.001	<0.001	<0.009	0.001	0.01	7	
MW-11	09-30-93	0.24	0.14	0.11	0.14	0.63	3	

BTEX results listed in m/l (parts per million; ppm) with a method detection limit of 0.001 ppm.
TPH and TDS results listed in mg/l (parts per million; ppm) with a method detection limit of 1 ppm.
Analyses were conducted using EPA Method 8020 (BTEX), EPA Method 418.1 (TPH), and EPA Method 160.1 (TDS) by SPL Environmental Laboratories.

APPENDIX D

ANALYTICAL RESULTS

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 93-09-960

Approved for release by:

W. Scott Sample Date: 10/6/93

S. Sample, Laboratory Director

Ed Fry Date: 10/6/93

Ed Fry, Project Manager

****SUMMARY REPORT*****

10/06/93

Company: Shell Pipe Line Corporation
Site: Lea County, New Mexico
Project No: 15-93677.3
Project: Lea Station

ANALYTICAL DATA
NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE PQL	TOLUENE PQL	ETHYLBENZ. PQL	XYLENE PQL	TPH-IR	TPH-GC	LEAD	MTBE
9309960-01 SOIL	B-13 (5-7) 09/22/93 09:25:00	ND 0.0050mg/kg	ND 0.0050mg/kg	ND 0.0050mg/kg	ND 0.0050mg/kg	20 10mg/Kg			
9309960-02 SOIL	B-13 (25-27) 09/22/93 10:00:00	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	20 10mg/Kg			
9309960-03 SOIL	MW-8 (10-12) 09/22/93 10:45:00	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	0.012 0.0010mg/kg	3000 20mg/Kg			
9309960-04 SOIL	MW-8 (25-27) 09/22/93 11:15:00	0.036 0.010mg/kg	0.20 0.010mg/kg	0.54 0.010mg/kg	0.55 0.010mg/kg	1400 10mg/Kg			
9309960-05 SOIL	B-14 (5-7) 09/22/93 14:05:00	ND 0.0010mg/kg	0.0010 0.0010mg/kg	0.0010 0.0010mg/kg	0.0050 0.0010mg/kg	10 10mg/Kg			
9309960-06 SOIL	B-14 (25-27) 09/22/93 14:40:00	ND 0.0010mg/kg	0.0020 0.0010mg/kg	ND 0.0010mg/kg	0.0010 0.0010mg/kg	20 10mg/Kg			
9309960-07 SOIL	MW-9 (15-17) 09/22/93 16:00:00	ND 0.0010mg/kg	ND 0.0010mg/kg	0.0010 0.0010mg/kg	0.0040 0.0010mg/kg	60 10mg/Kg			
9309960-08 SOIL	MW-9 (25-27) 09/22/93 16:20:00	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	10 10mg/Kg			
9309960-09 SOIL	MW-10 (5-7) 09/23/93 09:55:00	ND 0.0010mg/kg	0.0010 0.0010mg/kg	0.0010 0.0010mg/kg	0.0060 0.0010mg/kg	ND 10mg/Kg			
9309960-10 SOIL	MW-10 (31-32) 09/23/93 10:30:00	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	0.0010 0.0010mg/kg	20 10mg/Kg			

BTEX - METHOD 5030/8020 ***
TPH-IR - METHOD Mod. 418.1*

Shari L. Grice

SPL, Inc., - Shari L. Grice

****SUMMARY REPORT*****

10/06/93

Company: Shell Pipe Line Corporation
Site: Lea County, New Mexico
Project No: 15-93677.3
Project: Lea Station

ANALYTICAL DATA
NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE PQL	TOLUENE PQL	ETHYLBENZ. PQL	XYLENE PQL	TPH-IR	TPH-GC	LEAD	MTBE
9309960-11 SOIL	B-15 (15-17) 09/23/93 13:00:00	ND 0.0010mg/kg	ND 0.0010mg/kg	0.0010 0.0010mg/kg	0.0030 0.0010mg/kg	50 10mg/Kg			
9309960-12 SOIL	B-15 (30-32) 09/23/93 13:20:00	ND 0.010mg/kg	ND 0.010mg/kg	0.012 0.010mg/kg	0.021 0.010mg/kg	1200 10mg/Kg			
9309960-13 SOIL	MW-11 (10-12) 09/23/93 14:20:00	ND 0.050mg/kg	0.16 0.050mg/kg	4.7 0.050mg/kg	1.8 0.050mg/kg	5900 50mg/Kg			
9309960-14 SOIL	MW-11 (20-22) 09/23/93 14:40:00	0.97 0.25mg/kg	2.3 0.25mg/kg	45 0.25mg/kg	82 0.25mg/kg	1100 10mg/Kg			
9309960-15 SOIL	MW-11 (30-32) 09/23/93 15:00:00	0.010 0.010mg/kg	0.023 0.010mg/kg	0.045 0.010mg/kg	0.064 0.010mg/kg	370 10mg/Kg			
9309960-16 SOIL	B-16 (10-12) 09/23/93 17:20:00	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	0.0010 0.0010mg/kg	ND 10mg/Kg			
9309960-17 SOIL	B-16 (25-27) 09/23/93 17:48:00	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 10mg/Kg			
9309960-18 SOIL	MW-8 (10-12) << DUP 09/22/93 10:45:00	ND 0.010mg/kg	0.018 0.010mg/kg	ND 0.010mg/kg	0.072 0.010mg/kg	3300 20mg/Kg			
9309960-19 SOIL	MW-9 (25-27) << DUP 09/22/93 16:20:00	ND 0.0010mg/kg	ND 0.0010mg/kg	ND 0.0010mg/kg	0.0010 0.0010mg/kg	30 10mg/Kg			

BTEX - METHOD 5030/8020 ***
TPH-IR - METHOD Mod. 418.1*

Shari L. Grice

SPL, Inc., - Shari L. Grice

Certificate of Analysis No. 9309960-01

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-13 (5-7)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 09:25:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0050 P	mg/kg
TOLUENE	ND	0.0050 P	mg/kg
ETHYLBENZENE	ND	0.0050 P	mg/kg
TOTAL XYLENE	ND	0.0050 P	mg/kg
TOTAL BTEX	ND		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/02/93			
Petroleum Extractables	20	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-02

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-13 (25-27)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 10:00:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0010 P	mg/kg
TOLUENE	ND	0.0010 P	mg/kg
ETHYLBENZENE	ND	0.0010 P	mg/kg
TOTAL XYLENE	ND	0.0010 P	mg/kg
TOTAL BTEX	ND		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 09/30/93			
Petroleum Extractables	20	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-03

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-8 (10-12)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 10:45:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT		UNITS
BENZENE	ND	0.0010	P	mg/kg
TOLUENE	ND	0.0010	P	mg/kg
ETHYLBENZENE	ND	0.0010	P	mg/kg
TOTAL XYLENE	0.012	0.0010	P	mg/kg
TOTAL BTEX	0.012			mg/kg
METHOD 5030/8020 ***				
Analyzed by: KA				
Date: 10/01/93				
Petroleum Extractables	3000	20		mg/Kg
METHOD Mod. 418.1*				
Analyzed by: AR				
Date: 09/30/93				

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-04

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-8 (25-27)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 11:15:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	0.036	0.010 P	mg/kg
TOLUENE	0.20	0.010 P	mg/kg
ETHYLBENZENE	0.54	0.010 P	mg/kg
TOTAL XYLENE	0.55	0.010 P	mg/kg
TOTAL BTEX	1.326		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/02/93			
Petroleum Extractables	1400	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-05

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-14 (5-7)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 14:05:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0010 P	mg/kg
TOLUENE	0.0010	0.0010 P	mg/kg
ETHYLBENZENE	0.0010	0.0010 P	mg/kg
TOTAL XYLENE	0.0050	0.0010 P	mg/kg
TOTAL BTEX	0.007		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/01/93			
Petroleum Extractables	10	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-06

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-14 (25-27)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 14:40:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0010 P	mg/kg
TOLUENE	0.0020	0.0010 P	mg/kg
ETHYLBENZENE	ND	0.0010 P	mg/kg
TOTAL XYLENE	0.0010	0.0010 P	mg/kg
TOTAL BTEX	0.003		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/02/93			
Petroleum Extractables	20	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-07

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-9 (15-17)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 16:00:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT		UNITS
BENZENE	ND	0.0010	P	mg/kg
TOLUENE	ND	0.0010	P	mg/kg
ETHYLBENZENE	0.0010	0.0010	P	mg/kg
TOTAL XYLENE	0.0040	0.0010	P	mg/kg
TOTAL BTEX	0.005			mg/kg
METHOD 5030/8020 ***				
Analyzed by: KA				
Date: 09/30/93				
Petroleum Extractables	60	10		mg/Kg
METHOD Mod. 418.1*				
Analyzed by: AR				
Date: 09/30/93				

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-08

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-9 (25-27)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 16:20:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0010 P	mg/kg
TOLUENE	ND	0.0010 P	mg/kg
ETHYLBENZENE	ND	0.0010 P	mg/kg
TOTAL XYLENE	ND	0.0010 P	mg/kg
TOTAL BTEX	ND		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 09/30/93			
Petroleum Extractables	10	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-09

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-10 (5-7)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 09:55:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT		UNITS
BENZENE	ND	0.0010	P	mg/kg
TOLUENE	0.0010	0.0010	P	mg/kg
ETHYLBENZENE	0.0010	0.0010	P	mg/kg
TOTAL XYLENE	0.0060	0.0010	P	mg/kg
TOTAL BTEX	0.008			mg/kg
METHOD 5030/8020 ***				
Analyzed by: KA				
Date: 10/01/93				
Petroleum Extractables	ND	10		mg/Kg
METHOD Mod. 418.1*				
Analyzed by: AR				
Date: 09/30/93				

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-10

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-10 (31-32)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 10:30:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0010 P	mg/kg
TOLUENE	ND	0.0010 P	mg/kg
ETHYLBENZENE	ND	0.0010 P	mg/kg
TOTAL XYLENE	0.0010	0.0010 P	mg/kg
TOTAL BTEX	0.001		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 09/30/93			
Petroleum Extractables	20	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-11

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-15 (15-17)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 13:00:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0010 P	mg/kg
TOLUENE	ND	0.0010 P	mg/kg
ETHYLBENZENE	0.0010	0.0010 P	mg/kg
TOTAL XYLENE	0.0030	0.0010 P	mg/kg
TOTAL BTEX	0.004		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/01/93			
Petroleum Extractables	50	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-12

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-15 (30-32)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 13:20:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.010 P	mg/kg
TOLUENE	ND	0.010 P	mg/kg
ETHYLBENZENE	0.012	0.010 P	mg/kg
TOTAL XYLENE	0.021	0.010 P	mg/kg
TOTAL BTEX	0.033		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/02/93			
Petroleum Extractables	1200	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-13

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-11 (10-12)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 14:20:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.050 P	mg/kg
TOLUENE	0.16	0.050 P	mg/kg
ETHYLBENZENE	4.7	0.050 P	mg/kg
TOTAL XYLENE	1.8	0.050 P	mg/kg
TOTAL BTEX	6.66		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/04/93			
Petroleum Extractables	5900	50	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-14

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-11 (20-22)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 14:40:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	0.97	0.25 P	mg/kg
TOLUENE	2.3	0.25 P	mg/kg
ETHYLBENZENE	45	0.25 P	mg/kg
TOTAL XYLENE	82	0.25 P	mg/kg
TOTAL BTEX	130.27		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/04/93			
Petroleum Extractables	1100	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-15

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-11 (30-32)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 15:00:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	0.010	0.010 P	mg/kg
TOLUENE	0.023	0.010 P	mg/kg
ETHYLBENZENE	0.045	0.010 P	mg/kg
TOTAL XYLENE	0.064	0.010 P	mg/kg
TOTAL BTEX	0.142		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/02/93			
Petroleum Extractables	370	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-16

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-16 (10-12)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 17:20:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.0010 P	mg/kg
TOLUENE	ND	0.0010 P	mg/kg
ETHYLBENZENE	ND	0.0010 P	mg/kg
TOTAL XYLENE	0.0010	0.0010 P	mg/kg
TOTAL BTEX	0.001		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 09/30/93			
Petroleum Extractables	ND	10	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-17

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: B-16 (25-27)

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/23/93 17:48:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT		UNITS
BENZENE	ND	0.0010	P	mg/kg
TOLUENE	ND	0.0010	P	mg/kg
ETHYLBENZENE	ND	0.0010	P	mg/kg
TOTAL XYLENE	ND	0.0010	P	mg/kg
TOTAL BTEX	ND			mg/kg
METHOD 5030/8020 ***				
Analyzed by: KA				
Date: 09/30/93				
Petroleum Extractables	ND	10		mg/Kg
METHOD Mod. 418.1*				
Analyzed by: AR				
Date: 09/30/93				

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-18

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-8 (10-12) << DUP >>

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 10:45:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	0.010 P	mg/kg
TOLUENE	0.018	0.010 P	mg/kg
ETHYLBENZENE	ND	0.010 P	mg/kg
TOTAL XYLENE	0.072	0.010 P	mg/kg
TOTAL BTEX	0.090		mg/kg
METHOD 5030/8020 ***			
Analyzed by: KA			
Date: 10/02/93			
Petroleum Extractables	3300	20	mg/Kg
METHOD Mod. 418.1*			
Analyzed by: AR			
Date: 09/30/93			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

Certificate of Analysis No. 9309960-19

Shell Pipe Line Corporation
P.O. Box 2099
Houston, TX 77252-2099
ATTN: John Hite

P.O.# CAO-B-131201-GK
DATE: 10/06/93

PROJECT: Lea Station
SITE: Lea County, New Mexico
SAMPLED BY: CURA, Inc.
SAMPLE ID: MW-9 (25-27) << DUP >>

PROJECT NO: 15-93677.3
MATRIX: SOIL
DATE SAMPLED: 09/22/93 16:20:00
DATE RECEIVED: 09/29/93

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT		UNITS
BENZENE	ND	0.0010	P	mg/kg
TOLUENE	ND	0.0010	P	mg/kg
ETHYLBENZENE	ND	0.0010	P	mg/kg
TOTAL XYLENE	0.0010	0.0010	P	mg/kg
TOTAL BTEX	0.001			mg/kg
METHOD 5030/8020 ***				
Analyzed by: KA				
Date: 09/30/93				
Petroleum Extractables	30	10		mg/Kg
METHOD Mod. 418.1*				
Analyzed by: AR				
Date: 09/30/93				

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

** SPL Quality Control Report **
BTEX MATRIX SPIKE/MATRIX SPIKE DUPLICATE
Method 8020

SPL Sample ID: 9309513-03A **Reported on:** 10/05/93
Matrix: Soil **Analyzed on:** 09/30/93

This sample was randomly selected for use in the SPL quality control program. One in twenty samples is fortified, in duplicate, with a known concentration of the substance being analyzed.
The results are as follows:

---- SPIKE ANALYSIS -----

Compound	Blank Value	Spike Added µg/Kg	Original Sample Concentration µg/Kg	MS Concentration µg/Kg	MS % Rec#	QC Limits Range
BENZENE	ND	20	ND	21	105	39 - 150 %
TOLUENE	ND	20	ND	22	110	46 - 148 %
ETHYL_BENZENE	ND	20	ND	21	105	32 - 160 %
O XYLENE	ND	20	ND	21	105	32 - 160 %
M AND P XYLENE	ND	40	1	44	107	32 - 160 %

---- SPIKE DUPLICATE ANALYSIS -----

Compound	Spike Added µg/Kg	MSD Concentration µg/Kg	MSD % Rec#	% RPD	RPD Limit	QC Rec Range
BENZENE	20	23	115	9	20	39 - 150 %
TOLUENE	20	24	120	9	20	46 - 148 %
ETHYL_BENZENE	20	22	110	5	20	32 - 160 %
O XYLENE	20	22	110	5	20	32 - 160 %
M AND P XYLENE	40	47	115	7	20	32 - 160 %

VARJ930930133200

I. Z. Williams
Idelis Williams, QC Officer

** SPL Quality Control Report **
BTEX MATRIX SPIKE/MATRIX SPIKE DUPLICATE
Method 8020

SPL Sample ID: 9309731-06A Reported on: 10/05/93
Matrix: Soil Analyzed on: 10/01/93

This sample was randomly selected for use in the SPL quality control program. One in twenty samples is fortified, in duplicate, with a known concentration of the substance being analyzed.
The results are as follows:

---- SPIKE ANALYSIS -----

Compound	Blank Value	Spike Added µg/Kg	Original Sample Concentration µg/Kg	MS Concentration µg/Kg	MS % Rec#	QC Limits Range
BENZENE	ND	20	ND	19	95	39 - 150 %
TOLUENE	ND	20	ND	18	90	46 - 148 %
ETHYL_BENZENE	ND	20	ND	16	80	32 - 160 %
O XYLENE	ND	20	1	17	80	32 - 160 %
M AND P XYLENE	ND	40	2	32	75	32 - 160 %

---- SPIKE DUPLICATE ANALYSIS -----

Compound	Spike Added µg/Kg	MSD Concentration µg/Kg	MSD % Rec#	% RPD	RPD Limit	QC Rec Range
BENZENE	20	19	95	0	20	39 - 150 %
TOLUENE	20	17	85	6	20	46 - 148 %
ETHYL_BENZENE	20	14	70	13	20	32 - 160 %
O XYLENE	20	15	70	13	20	32 - 160 %
M AND P XYLENE	40	28	65	14	20	32 - 160 %

VARJ931001072800

I. J. Williams
Idelis Williams, QC Officer

** SPL Quality Control Report **
BTEX MATRIX SPIKE/MATRIX SPIKE DUPLICATE
Method 8020

SPL Sample ID: 9309513-01A **Reported on:** 10/05/93
Matrix: Soil **Analyzed on:** 10/02/93

This sample was randomly selected for use in the SPL quality control program. One in twenty samples is fortified, in duplicate, with a known concentration of the substance being analyzed.
The results are as follows:

---- SPIKE ANALYSIS -----

Compound	Blank Value	Spike Added µg/Kg	Original Sample Concentration µg/Kg	MS Concentration µg/Kg	MS % Rec#	QC Limits Range
BENZENE	ND	20	ND	17	85	39 - 150 %
TOLUENE	ND	20	ND	17	85	46 - 148 %
ETHYL_BENZENE	ND	20	ND	16	80	32 - 160 %
O XYLENE	ND	20	ND	16	80	32 - 160 %
M AND P XYLENE	ND	40	1	32	77	32 - 160 %

---- SPIKE DUPLICATE ANALYSIS -----

Compound	Spike Added µg/Kg	MSD Concentration µg/Kg	MSD % Rec#	% RPD	RPD Limit	QC Rec Range
BENZENE	20	19	95	11	20	39 - 150 %
TOLUENE	20	18	90	6	20	46 - 148 %
ETHYL_BENZENE	20	16	80	0	20	32 - 160 %
O XYLENE	20	17	85	6	20	32 - 160 %
M AND P XYLENE	40	32	77	0	20	32 - 160 %

VARJ931002050600

I. Z. Williams

Idelis Williams, QC Officer

** SPL Quality Control Report **
BTEX MATRIX SPIKE/MATRIX SPIKE DUPLICATE
Method 8020

SPL Sample ID: 9309513-01A Reported on: 10/05/93
Matrix: Soil Analyzed on: 10/04/93

This sample was randomly selected for use in the SPL quality control program. One in twenty samples is fortified, in duplicate, with a known concentration of the substance being analyzed.
The results are as follows:

---- SPIKE ANALYSIS -----

Compound	Blank Value	Spike Added µg/Kg	Original Sample Concentration µg/Kg	MS Concentration µg/Kg	MS % Rec#	QC Limits Range
BENZENE	ND	20	ND	20	100	39 - 150 %
TOLUENE	ND	20	ND	22	110	46 - 148 %
ETHYL_BENZENE	ND	20	ND	22	110	32 - 160 %
O XYLENE	ND	20	ND	24	120	32 - 160 %
M AND P XYLENE	ND	40	1	48	117	32 - 160 %

---- SPIKE DUPLICATE ANALYSIS -----

Compound	Spike Added µg/Kg	MSD Concentration µg/Kg	MSD % Rec#	% RPD	RPD Limit	QC Rec Range
BENZENE	20	19	95	5	20	39 - 150 %
TOLUENE	20	21	105	5	20	46 - 148 %
ETHYL_BENZENE	20	20	100	10	20	32 - 160 %
O XYLENE	20	21	105	13	20	32 - 160 %
M AND P XYLENE	40	41	100	16	20	32 - 160 %

VARJ931004124800

Idelis Williams, QC Officer

SPL®

** SPL QUALITY CONTROL REPORT **
TOTAL PETROLEUM HYDROCARBONS [TPH]

SPL sample Id: 9309968-1B **Reported on:** 10/05/93
Matrix: SOIL **Analyzed on:** 09/30/93

This sample was randomly selected for use in the SPL quality control program. One in ten samples is fortified with a known concentration of the substance being analyzed and one in ten samples is analyzed in duplicate. The result are as follows:

-- SPIKE ANALYSIS --

Sample Id	Blank Value	Spike Added mg/L	Original Sample Concentration mg/Kg	MS Concentration mg/Kg	MS % Rec
9309968-1B	ND	384	7	329	84

-- SPIKE DUPLICATE ANALYSIS --

Sample Id	Spike Added mg/L	MSD Concentration mg/Kg	MSD % Rec	% RPD
9309968-1B	384	351	90	6

SPL, Incorporated

Cynthia Schreiner, QC Officer

9309960 9/30/93

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 10278

Date: 9-27-93
Page 1 of 2

Shell Pipe Line Corp
SITE ADDRESS: Lea Station
Lea County, New Mexico
WIC #: Proj # 15-93677.3
CONSULTANT NAME & ADDRESS: CURA Inc.
3001 N. Big Spring, Ste 101, Midland, TX 79705
CONSULTANT CONTACT: F. Wesley Root
PHONE: 915-570-8408 FAX: 915-570-8409
SAMPLED BY: F. Wesley Root

CHECK ONE BOX ONLY CT/DT

- QUARTERLY MONITORING ☐ 5461
- SITE INVESTIGATION ☒ 5441
- SOIL FOR DISPOSAL ☐ 5442
- WATER FOR DISPOSAL ☐ 5443
- AIR SAMPLER - SYS O+M ☐ 5452
- WATER SAMPLE - SYS O+M ☐ 5453
- OTHER ☐

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX: H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	ANALYSIS REQUEST: BTEX 602 ☐	8020 WITH MTBE ☐ ☒	BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE	VOL 624/PPL ☐	8240/TAL ☐	NBS (+15) ☐	PNA/PAH 8310 ☐	8100 ☐	610 ☐	SEMI - VOL 625/PPL ☐	8270/TAL ☐	NBS (+25) ☐	TPH/IR 418.1 ☐ ☒	SM503 ☐	☐	☐	TPH/GC 8015 Mod GAS ☐	8015 Mod DIESEL ☐	TCLP METALS ☐ VOL ☐ SEMI-VOL ☐	PEST ☐ HERB ☐	EP TOX METALS ☐ PESTICIDES ☐	HERBICIDES ☐	REACTIVITY ☐	CORROSIVITY ☐	IGNITABILITY ☐	OTHER	REMARKS
B-13 (5-7)	9-22-93	9:25		V		V								ICE	1	4oz	V											V														
B-13 (25-27)	9-22-93	10:00		V		V								ICE	1	4oz	V											V														
MW-8 (10-12)	9-22-93	10:45		V		V								ICE	2	4oz	V											V														Field Duplicate
MW-8 (25-27)	9-22-93	11:15		V		V								ICE	1	4oz	V											V														
B-14 (5-7)	9-22-93	14:05		V		V								ICE	1	4oz	V											V														
B-14 (25-27)	9-22-93	14:40		V		V								ICE	1	4oz	V											V														
MW-9 (15-17)	9-22-93	16:00		V		V								ICE	1	4oz	V											V														
MW-9 (25-27)	9-22-93	16:20		V		V								ICE	2	4oz	V											V														Field Duplicate
MW-10 (5-7)	9-23-93	9:55		V		V								ICE	1	4oz	V											V														
MW-10 (31-32)	9-23-93	10:30		V		V								ICE	1	4oz	V											V														
B-15 (15-17)	9-23-93	13:00		V		V								ICE	1	4oz	V											V														
B-15 (30-32)	9-23-93	13:20		V		V								ICE	1	4oz	V											V														

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
F. Wesley Root	9-27-93	10:30			
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			INTACT 3oc		
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
				9/29/93	14:00

BILL NO.:
LABORATORY:
SHELL CONTACT: John Hite PHONE: 713-241-1001 FAX:

TURN AROUND TIME (CHECK ONE)
7 DAYS ☐ (NORMAL) 14 DAYS ☐
48 HOURS ☐ OTHER ☐ per contract

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with Report

9309960

SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING

CHAIN OF CUSTODY RECORD NO. H 10277

Date: 9-27-93
Page 2 of 2

Shell Pipe Line Corp
SITE ADDRESS: Lea Station
Lea County, New Mexico
WIC #: Proj # 15-93677.3
CONSULTANT NAME & ADDRESS: CURA Inc.
3001 N. Big Spring, Ste 101, Midland, TX 79705
CONSULTANT CONTACT: F. Wesley Root
PHONE: 915-570-8403 FAX: 915-570-8409
SAMPLED BY: F. Wesley Root

CHECK ONE BOX ONLY CT/DT

- QUARTERLY MONITORING ☐ 5461
- SITE INVESTIGATION ☐ 5441
- SOIL FOR DISPOSAL ☐ 5442
- WATER FOR DISPOSAL ☐ 5443
- AIR SAMPLER - SYS O+M ☐ 5452
- WATER SAMPLE - SYS O+M ☐ 5453
- OTHER ☐

SAMPLE I.D.	DATE	TIME	COMP.	GRAB	MATRIX: H2O	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCl	HNO3	H2SO4	NONE	OTHER	NO. OF CONTAINERS	CONTAINER SIZE	BTEX 602 ☐ 8020 ☒ WITH MTBE ☐	BTEX/GAS HYDROCARBONS PID/FID ☐ WITH MTBE	VOL. 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	PNA/PAH 8310 ☐ 8100 ☐ 610 ☐	SEMI - VOL 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	TPH/IR 418.1 ☒ SM503 ☐ ☐ ☐ ☐	TPH/GC 8015 Mod. GAS ☐ 8015 Mod DIESEL ☐	TCLP METALS ☐ VOL ☐ SEMI-VOL ☐ PEST ☐ HERB ☐	EP TOX METALS ☐ PESTICIDES ☐ HERBICIDES ☐	REACTIVITY ☐ CORROSIVITY ☐ IGNITABILITY ☐	OTHER	REMARKS
MW-11 (10-12)	9-23-93	14:20		V		V								ICE	1	4oz	V					V						
MW-11 (20-22)	9-23-93	14:40		V		V								ICE	1	4oz	V					V						
MW-11 (30-32)	9-23-93	15:00		V		V								ICE	1	4oz	V					V						
B-16 (10-12)	9-23-93	17:20		V		V								ICE	1	4oz	V					V						
B-16 (25-27)	9-23-93	17:48		V		V								ICE	1	4oz	V					V						

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
F. Wesley Root	9-27-93	10:30			
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			INTACT 3°C		
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
				9/29/93	14:30

BILL NO.:
LABORATORY:
SHELL CONTACT: John Hite PHONE: 713-241-1081 FAX:

TURN AROUND TIME (CHECK ONE)
7 DAYS ☐ (NORMAL) 14 DAYS ☐
48 HOURS ☐ OTHER ☐ per contract

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN OF CUSTODY WITH INVOICE AND RESULTS

DISTRIBUTION: PINK Sampling Coordinator - WHITE & YELLOW Accompanies Shipment - WHITE Returned with Report

SPL HOUSTON ENVIRONMENTAL LABORATORY

SAMPLE LOGIN CHECKLIST

DATE: 9/29 TIME: 14:00 CLIENT NO. _____
LOT NO. _____ CONTRACT NO. _____

CLIENT SAMPLE NOS. _____

SPL SAMPLE NOS.: 9309960

		YES	NO
1.	Is a Chain-of-Custody form present?	✓	
2.	Is the COC properly completed?	✓	
	If no, describe what is incomplete:		
	If no, has the client been contacted about it?		
	(Attach subsequent documentation from client about the situation)		
3.	Is airbill/packing list/bill of lading with shipment?	✓	
	If yes, ID#: UPS Blue		
4.	Is a USEPA Traffic Report present?		✓
5.	Is a USEPA SAS Packing List present?		✓
6.	Are custody seals present on the package?	✓	
	If yes, were they intact upon receipt?	✓	
7.	Are all samples tagged or labeled?	✓	
	Do the sample tags/labels match the COC?	✓	
	If no, has the client been contacted about it?		
	(Attach subsequent documentation from client about the situation)		
8.	Do all shipping documents agree?	✓	
	If no, describe what is in nonconformity:		

9. Condition/temperature of shipping container: INTACT 3°C
10. Condition/temperature of sample bottles: GOOD 3°C
11. Sample Disposal?: SPL disposal ✓ Return to client _____

NOTES (reference item number if applicable): _____

ATTEST: _____ DATE: 9/29/93
DELIVERED FOR RESOLUTION: REC'D _____ DATE: _____
RESOLVED: _____ DATE: _____

APPENDIX E

PHOTO-DOCUMENTATION

Photograph 1: View of well installation operations on monitor well MW-11 at Lea Station. Note offset tank battery on right in background.

Photograph 2: View looking southeast towards Monument Draw and the locations of monitor wells MW-4, MW-9, and MW-10 (from right to left).