1R - 255

REPORTS

DATE:

10/16/2000

LARSON & Associates, Inc.
Environmental Consultants

October 16, 2000

Via Facsimile: (505) 827-8177

Mr. William C. Olson
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: Preliminary Report and Request to Close Excavation, Texaco Exploration and Production Inc., J.R. Phillips Tank Battery No. 2, SE/4, NW/4, Section 6, Township 20 South, Range 37 East, Lea County, New Mexico

Dear Mr. Olson:

On September 28, 2000, LARSON and Associates, Inc. (LA), on behalf of Texaco Exploration and Production Inc. (Texaco), submitted a letter to the New Mexico Oil Conservation Division (NMOCD) requesting approval to close an excavation at the above-referenced location (Site). The Site is a former oilfield tank battery location once operated by Texaco, and located in the southeast quarter (SE/4) of the northwest quarter (NW/4) of Section 6, Township 20 South, Range 37 East, Lea County, New Mexico. Figure 1 presents a Site location and topographic map.

The September 28, 2000 letter presented the preliminary results of laboratory analyses of soil samples collected by LA personnel on August 17, 2000 and September 15, 2000. Additional analyses were pending at the time the letter was issued, however, during a telephone conversation on September 29, 2000, you requested that additional soil be excavated to reduce total petroleum hydrocarbon (TPH) concentrations at the bottom and southwest corner (sample B-5), and the west wall (sample W-2) of the main excavation. This letter presents the initial sample results, and results from soil samples following excavation of additional soil.

Background

In December 1999, Texaco initiated reclamation activities at the Site that included excavating and hauling TPH affected soil from the Site to its centralized facility (landfarm), located northwest of Jal, New Mexico. The excavated area includes a main excavation, and satellite excavation. The main excavation is located east of the current J.R. Phillips #2 Battery location, and the satellite excavation is a former burn pit located southeast of the main excavation. The main excavation extends to approximately 25 to 30 feet below ground surface (BGS). The satellite excavation was excavated to approximately 12 to 15 feet BGS.

A test trench was excavated below the bottom of the main excavation near the northwest corner to evaluate residual hydrocarbon and chloride concentrations in soil, and observe depth-to-groundwater. Groundwater was observed approximately 10 feet below the bottom of the main excavation, or 35 to 40 feet BGS. LA personnel collected composite soil samples from the test trench on August 17, 2000. Three to four grab samples were collected from each wall to form a composite sample. The samples were transferred under chain-of-custody control to Trace Analysis, Inc., located in Lubbock, Texas. The samples were analyzed for chloride and TPH. The east wall sample was also analyzed for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) since the photoionization detector (PID) recorded a concentration of ionizable hydrocarbons above 100 parts per million (ppm). Figure 2 presents a Site drawing and approximate location of the test trench. Table 1 presents a summary of the laboratory analyses. Appendix A presents the laboratory report.

On September 15, 2000, LA personnel collected composite soil samples from the walls and bottom of the main excavation, and the satellite excavation. Two to four composite samples were collected from each wall, and five composite samples were collected from the bottom of the main excavation. Two composite samples (SP-1 and SP-2) were collected from the north and south sides of the wedge-shape satellite excavation. Each composite sample consisted of five grab samples. The samples were submitted under chain-of-custody control to Trace Analysis, Inc, and analyzed for TPH and chloride. Samples from the west wall (W-1) and bottom of the main excavation (B-3, B-4 and B-5) were also analyzed for BTEX, since PID readings exceeded 100 ppm. Figures 3 through 5 present the sample locations. Table 1 presents a summary of the laboratory analyses. Appendix A presents the laboratory reports.

Following a telephone conversation on September 29, 2000, the NMOCD requested that additional soil be excavated from the bottom and west wall of the main excavation at sample locations B-5 and W-2, respectively. Approximately 40 cubic yards of additional soil was excavated and removed on October 3, 2000, and included some soil from the north end of the west wall (location W-3). The additional soil was hauled to Texaco's landfarm. Soil samples were collected from the excavated areas, submitted under chain-of-custody control to Trace Analysis, Inc., and analyzed for TPH. Sample B-5 was also analyzed for BTEX since the PID recorded a reading above 100 ppm. Table 1 presents a summary of the analyses. Appendix A presents the laboratory reports.

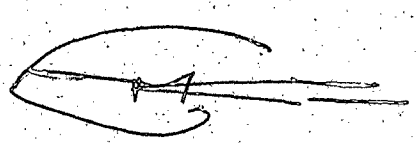
Referring to Table 1, the TPH concentrations in the test trench samples ranged from 54 milligrams per kilogram (mg/kg) in the south wall sample, to 113 mg/kg in the east wall sample. Xylene was the only volatile organic parameter that was detected in the east wall sample, and was reported at 0.057 mg/kg. Chloride concentrations ranged from 26 mg/kg (south wall) to 220 mg/kg (east wall). The TPH concentrations in samples from the main excavation ranged from less than the test method detection limit of 55 mg/kg (sample W-4) to 2342 mg/kg in sample B-5. The TPH concentration in samples B-5, W-2

and W-3 were reduced to 566 mg/kg, 1050 mg/kg and 72 mg/kg, respectively, following excavation of additional soil on October 3, 2000. The highest total BTEX concentration was reported in sample B-5 on September 15, 2000 (4.28 mg/kg). However, the concentration of total BTEX in the bottom of the southwest corner of the main excavation was reduced to 0.333 mg/kg following removal of additional soil on October 3, 2000. Chloride concentration in samples from the main excavation ranged from 20 mg/kg in sample B-3 to 1100 mg/kg in sample W-4.

In conclusion, benzene and total BTEX were below the NMOCD recommended remediation action level (RRAL) of 10 mg/kg and 50 mg/kg, respectively. The concentration of TPH in soil samples from the bottom of the main excavation (B-1 through B-5), test trench, and satellite excavation samples were below the NMOCD RRAL of 1000 mg/kg. Chloride concentrations in samples from the bottom of the main excavation and test trench were reported below 250 mg/kg, which the NMOCD has used as a general cleanup level for soil.

Texaco requests permission to fill the excavations with clean soil, and place a compacted clay cover, approximately 2 feet thick, over the Site. The clay cover will be compacted to 95% proctor density to reduce infiltration of precipitation. Approximately 2 feet of clean soil will be placed over the cap and seeded to grass. Texaco will present the complete investigation results, including analyses of groundwater samples from monitoring and water wells, in a comprehensive report to the NMOCD. The report will be compiled following receipt of the final laboratory reports. Your expeditious approval to fill the excavation is requested. Please call Mr. Rodney Bailey at (915) 688-2971 or my self at (915) 687-0901 if you have questions.

Sincerely,
LARSON & Associates, Inc.



Mark J. Larson, CPG, CGWP
President

cc: Rodney Bailey - Texaco
Chris Williams – NMOCD, Hobbs District

Encl.

TABLES

Table 1: Summary of BTEX, TPH and Chloride Analyses of Soil Samples
Texaco Exploration and Production, Inc.
J.R. Phillips Tank Battery No. 2
SE/4, NW/4, Section 6, Township 20 South, Range 37 East
Lea County, New Mexico

Sample Number	Sample Date	Chloride (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)
Area: Main Excavation										
N-1	15-Sept-00	920	<5	95	95	--	--	--	--	--
N-2	15-Sept-00	590	<5	178	178	--	--	--	--	--
S-1	15-Sept-00	230	<5	55	55	--	--	--	--	--
S-2	15-Sept-00	750	<5	63	63	--	--	--	--	--
E-1	15-Sept-00	78	<5	89	89	--	--	--	--	--
E-2	15-Sept-00	59	<5	128	128	--	--	--	--	--
W-1	15-Sept-00	120	<5	89	89	<0.05	<0.05	<0.05	<0.05	<0.2
W-2	15-Sept-00	250	665	627	1292	<0.05	<0.05	0.264	0.947	1.211
	03-Oct-00	--	<5	1050	1050	--	--	--	--	--
W-3	15-Sept-00	210	630	313	943	<0.05	<0.05	0.260	1.01	1.27
	03-Oct-00	--	<5	72	72	--	--	--	--	--
W-4	15-Sept-00	1100	<5	<50	<55	--	--	--	--	--
B-1	15-Sept-00	200	<5	268	268	--	--	--	--	--
B-2	15-Sept-00	27	366	136	502	--	--	--	--	--
B-3	15-Sept-00	20	<5	269	269	<0.05	<0.05	<0.05	0.867	0.867
B-4	15-Sept-00	66	<5	487	487	<0.05	<0.05	<0.05	1.12	1.12
B-5	15-Sept-00	67	502	1840	2342	<0.1	<0.1	1.04	3.24	4.28
	03-Oct-00	--	<5	566	566	<0.05	<0.05	0.106	0.227	0.333
Area: Satellite Excavation (Southeat of Main Excavation)										
SP-1	15-Sept-00	2600	<5	162	162	--	--	--	--	--
SP-2	15-Sept-00	3700	<5	53	53	--	--	--	--	--
Area: Test Trench (Near Northwest Corner of Main Excavation)										
N. Wall	17-Aug-00	38	<5	85	85	--	--	--	--	--
S. Wall	17-Aug-00	26	<5	54	54	--	--	--	--	--
E. Wall	17-Aug-00	220	<5	113	113	<0.05	<0.05	<0.05	0.057	0.057
W. Wall	17-Aug-00	60	<5	93	93	--	--	--	--	--

Notes: Analyses performed by Trace Analysis, Inc., Lubbock, Texas

1. mg/kg: Concentration in milligrams per kilogram
2. <: Analyte not detected at test method detection limit.
3. - - : No data available

FIGURES

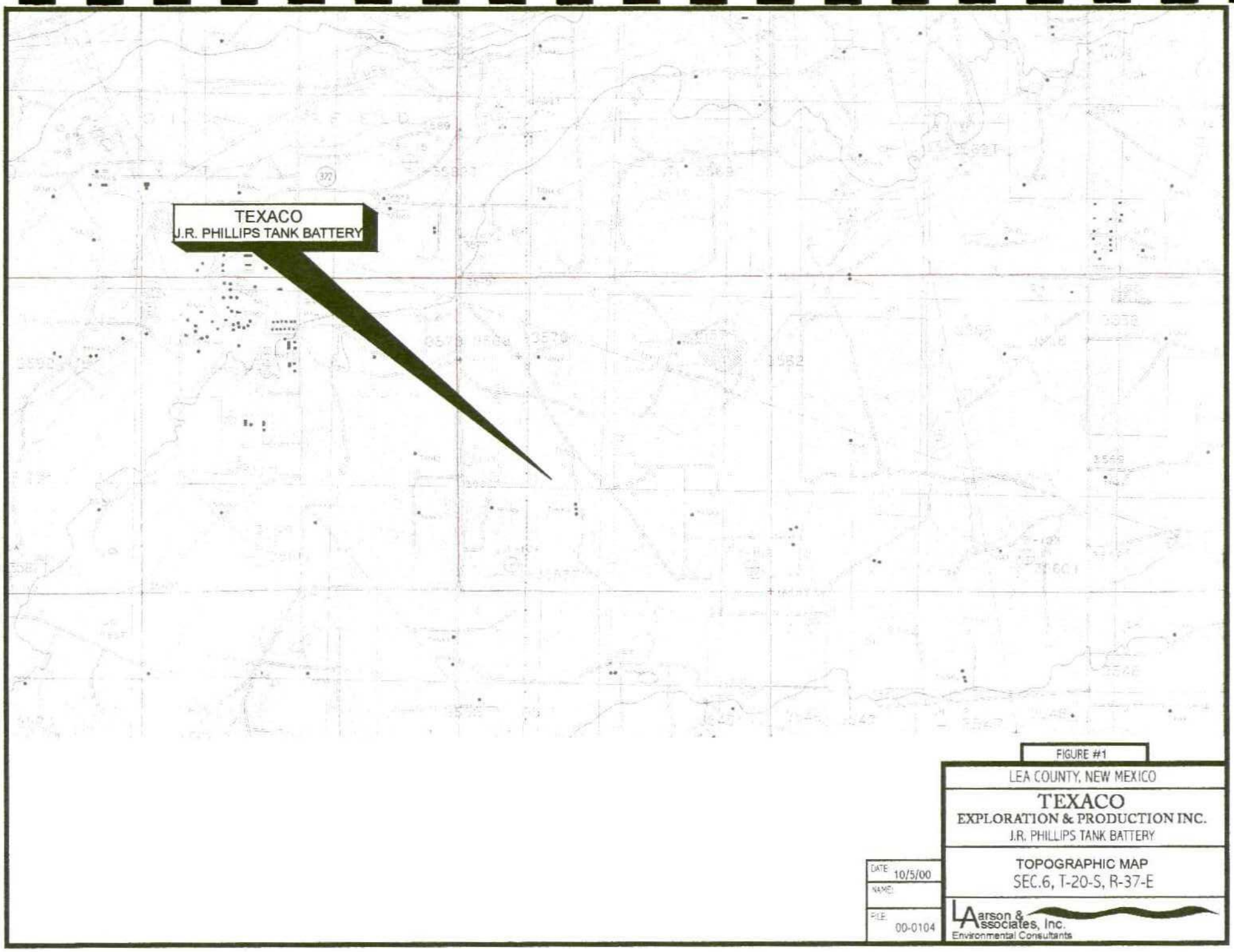


FIGURE #1

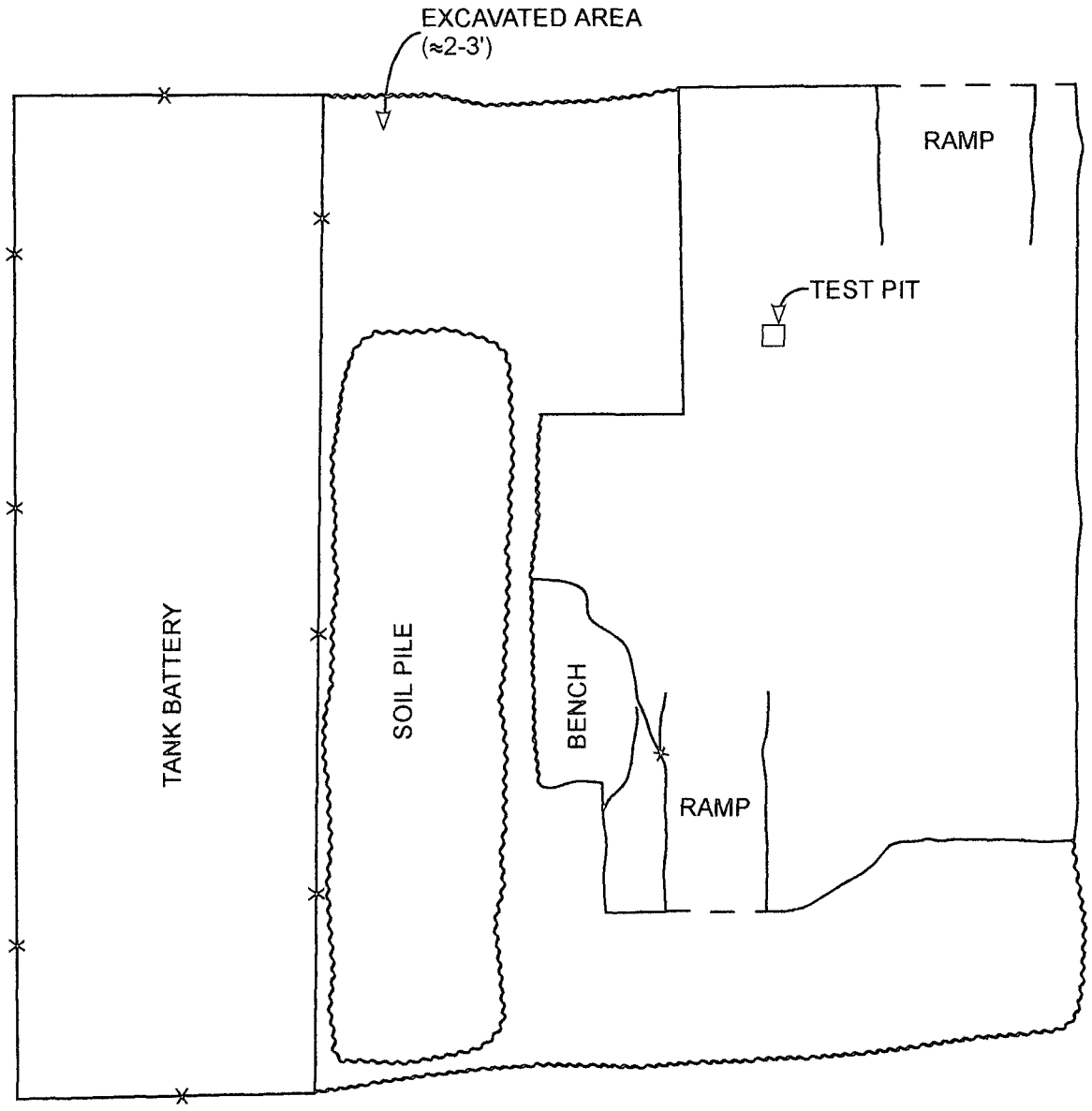
LEA COUNTY, NEW MEXICO

TEXACO
EXPLORATION & PRODUCTION INC.
J.R. PHILLIPS TANK BATTERY

TOPOGRAPHIC MAP
SEC.6, T-20-S, R-37-E

DATE: 10/5/00
NAME:
FILE: 00-0104

LAarson & Associates, Inc.
Environmental Consultants



Scale: 1"=50'

FIGURE #2

LEA COUNTY, NEW MEXICO

TEXACO

EXPLORATION & PRODUCTION INC.

J.R. PHILLIPS TANK BATTERY

SITE DRAWING

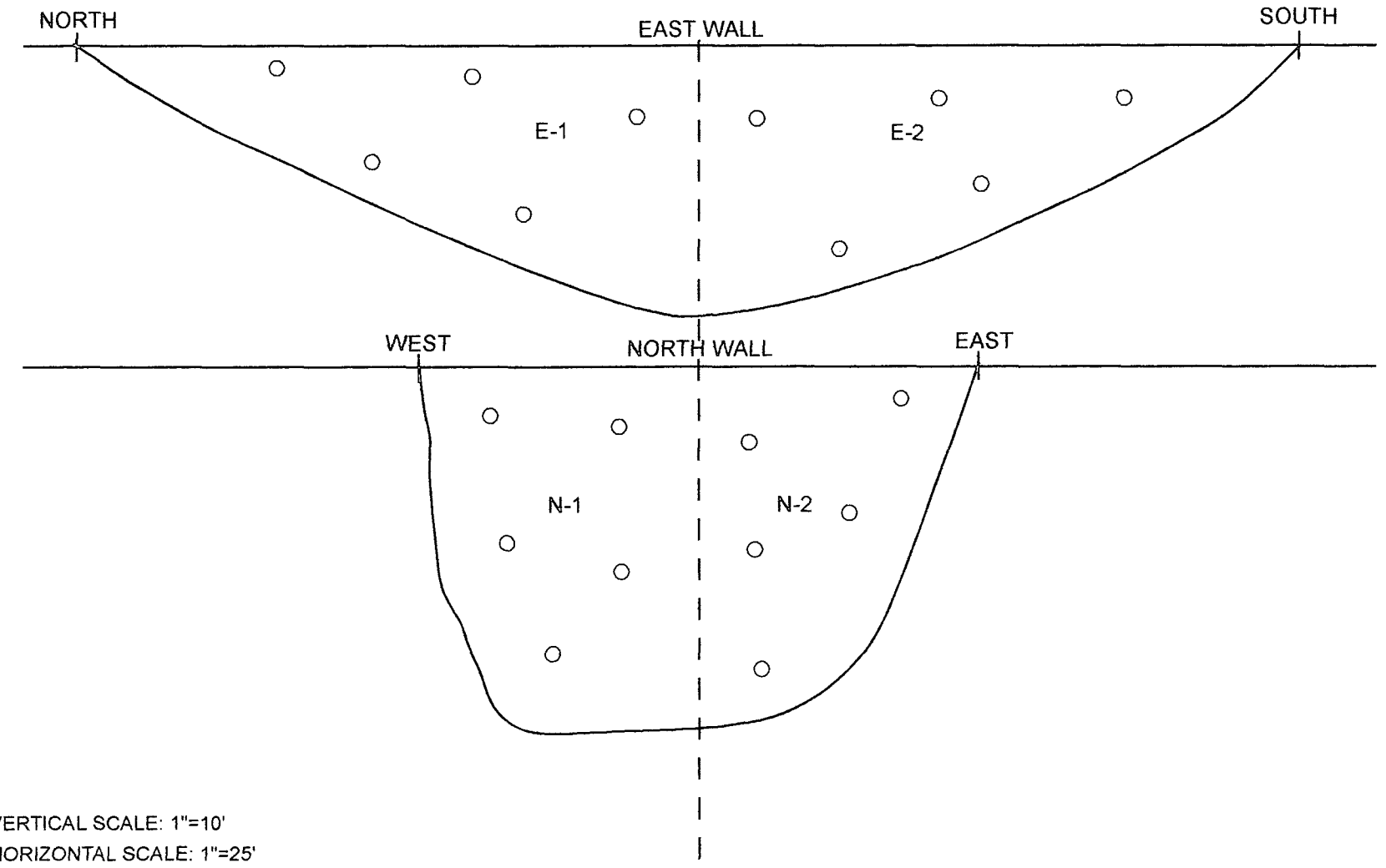
DATE: 10/5/00

NAME:

FILE: 00-0104

Larson & Associates, Inc.
Environmental Consultants

AREA 1



VERTICAL SCALE: 1"=10'
HORIZONTAL SCALE: 1"=25'

LEGEND

○ SAMPLE LOCATION

N-1 COMPOSITE SAMPLE

FIGURE # 3

LEA COUNTY, NEW MEXICO

TEXACO
EXPLORATION & PRODUCTION INC.
J.R. PHILLIPS TANK BATTERY

NORTH/SOUTH & EAST/WEST CROSS SECTION

DATE: 10/5/00
NAME:
FILE: 00-0104

Larson & Associates, Inc.
Environmental Consultants

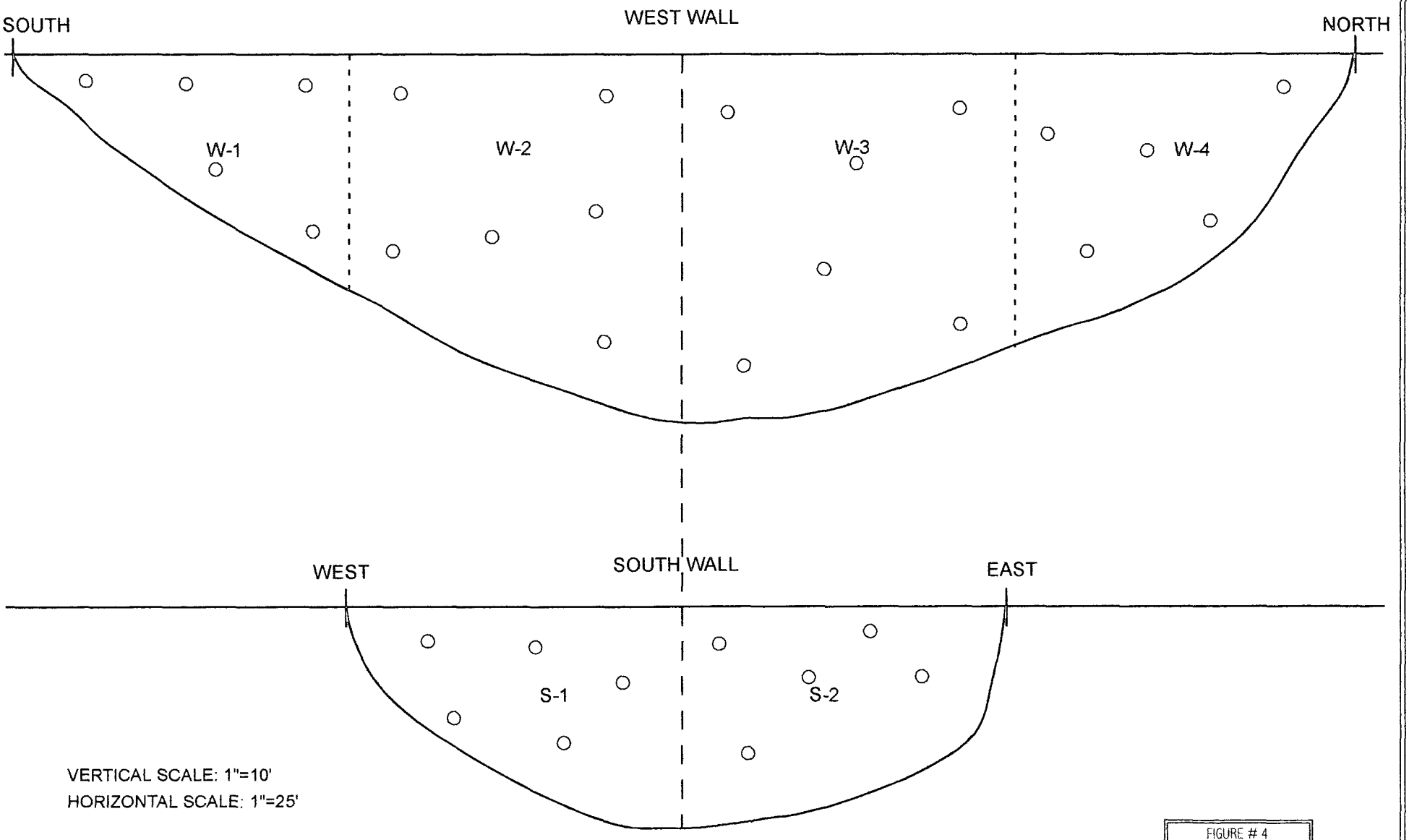


FIGURE # 4

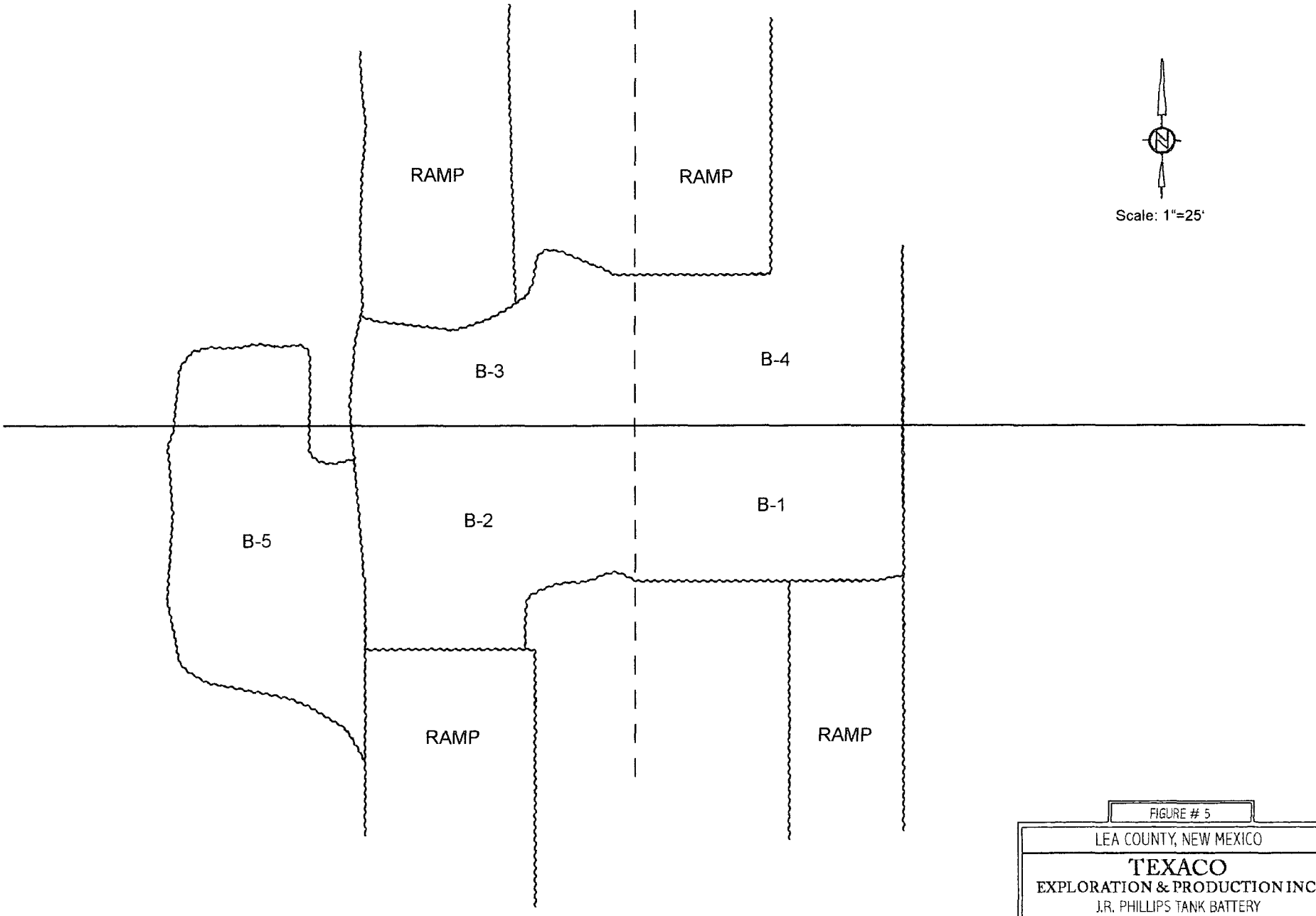
LEA COUNTY, NEW MEXICO

TEXACO
EXPLORATION & PRODUCTION INC.
J.R. PHILLIPS TANK BATTERY

WEST/EAST & SOUTH/NORTH CROSS SECTION

DATE: 10/5/00
NAME:
FILE: 00-0104

Larson & Associates, Inc.
Environmental Consultants



Scale: 1"=25'

FIGURE # 5

LEA COUNTY, NEW MEXICO

TEXACO
EXPLORATION & PRODUCTION INC.
J.R. PHILLIPS TANK BATTERY

BOTTOM VIEW

DATE 10/5/00
NAME
FILE 00-0104

Larson & Associates, Inc.
Environmental Consultants

APPENDIX A

Trace Analysis, Inc. Reports

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, Tx. 79710

Report Date: August 31, 2000

Order ID Number: A00082112

Project Number: 00-0104
Project Name: J.B. Phillips
Project Location: Lea County, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
151762	East Wall	Soil	8/17/00	17:23	8/19/00
151763	West Wall	Soil	8/17/00	17:27	8/19/00
151764	North Wall	Soil	8/17/00	17:30	8/19/00
151765	South Wall	Soil	8/17/00	17:35	8/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 151762 - East Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC04483	Date Analyzed:	8/25/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB03903	Date Prepared:	8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		113	mg/Kg	1	50

Sample: 151762 - East Wall

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC04457	Date Analyzed:	8/24/00
Analyst:	RC	Preparation Method:		Prep Batch:	PB03884	Date Prepared:	8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151763 - West Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC04483	Date Analyzed:	8/25/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB03903	Date Prepared:	8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		93	mg/Kg	1	50

Sample: 151763 - West Wall

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC04457	Date Analyzed:	8/24/00
Analyst:	RC	Preparation Method:		Prep Batch:	PB03884	Date Prepared:	8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151764 - North Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC04483	Date Analyzed:	8/25/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB03903	Date Prepared:	8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		85	mg/Kg	1	50

Sample: 151764 - North Wall

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC04457	Date Analyzed:	8/24/00
Analyst:	RC	Preparation Method:		Prep Batch:	PB03884	Date Prepared:	8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 151765 - South Wall

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC04483	Date Analyzed:	8/25/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB03903	Date Prepared:	8/21/00

Param	Flag	Result	Units	Dilution	RDL
DRO		54	mg/Kg	1	50

Sample: 151765 - South Wall

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC04457	Date Analyzed:	8/24/00
Analyst:	RC	Preparation Method:		Prep Batch:	PB03884	Date Prepared:	8/24/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC04457

Param	Flag	Results	Units	Reporting Limit
GRO		<5	mg/Kg	0.10

Sample: Method Blank QCBatch: QC04483

Param	Flag	Results	Units	Reporting Limit
DRO		<50	mg/Kg	50

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC04457

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		0.8	mg/Kg	1	1	<5	80		80 - 120	20

Sample: LCSD QC Batch: QC04457

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		0.875	mg/Kg	1	1	<5	87	9	80 - 120	20

Sample: LCS QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		255	mg/Kg	1	250	<50	102		70 - 130	20

Sample: LCSD QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		251	mg/Kg	1	250	<50	100	2	70 - 130	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		256	mg/Kg	1	250	<50	102		70 - 130	20

Sample: MSD QC Batch: QC04483

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO		272	mg/Kg	1	250	<50	108	6	70 - 130	20

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC04457

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	0.803	80	80 - 120	8/24/00

Sample: ICV (1) QC Batch: QC04457

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.14	114	80 - 120	8/24/00

Sample: CCV (1) QC Batch: QC04483

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	271	108	70 - 130	8/25/00

Sample: CCV (2) QC Batch: QC04483

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	272	108	70 - 130	8/25/00

Sample: ICV (1) QC Batch: QC04483

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	263	105	70 - 130	8/25/00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, Tx. 79710

Report Date: August 31, 2000

Order ID Number: A00082112

Project Number: 00-0104
Project Name: J.B. Phillips
Project Location: Lea County, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
151762	East Wall	Soil	8/17/00	17:23	8/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich. Director

Analytical and Quality Control Report

Sample: 151762 - East Wall

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC04456	Date Analyzed:	8/24/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB03883	Date Prepared:	8/24/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	1	0.001
Toluene		<0.05	mg/Kg	1	0.001
Ethylbenzene		<0.05	mg/Kg	1	0.001
M,P,O-Xylene		0.057	mg/Kg	1	0.001
Total BTEX		0.057	mg/Kg	1	0.001

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC04456

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.05	mg/Kg	0.001
Toluene		<0.05	mg/Kg	0.001
Ethylbenzene		<0.05	mg/Kg	0.001
M,P,O-Xylene		<0.05	mg/Kg	0.001
Total BTEX		<0.05	mg/Kg	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		4.94	mg/Kg	0.10	98	72 - 128
4-BFB		4.36	mg/Kg	0.10	87	72 - 128

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC04456

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		4.88	mg/Kg	50	0.10	<0.05	97		80 - 120	20
Benzene		4.6	mg/Kg	50	0.10	<0.05	92		80 - 120	20

Continued ...

... *Continued*

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Toluene		4.46	mg/Kg	50	0.10	<0.05	89		80 - 120	20
Ethylbenzene		4.57	mg/Kg	50	0.10	<0.05	91		80 - 120	20
M,P,O-Xylene		14.9	mg/Kg	50	0.30	<0.05	99		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		4.84	mg/Kg	50	0.10	96	72 - 128
4-BFB		4.48	mg/Kg	50	0.10	89	72 - 128

Sample: LCSD QC Batch: QC04456

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		4.68	mg/Kg	50	0.10	<0.05	93	4	80 - 120	20
Benzene		4.41	mg/Kg	50	0.10	<0.05	88	4	80 - 120	20
Toluene		4.28	mg/Kg	50	0.10	<0.05	85	4	80 - 120	20
Ethylbenzene		4.36	mg/Kg	50	0.10	<0.05	87	5	80 - 120	20
M,P,O-Xylene		14.3	mg/Kg	50	0.30	<0.05	95	4	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		4.67	mg/Kg	50	0.10	93	72 - 128
4-BFB		4.34	mg/Kg	50	0.10	86	72 - 128

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC04456

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Benzene		4.48	mg/Kg	50	0.10	<0.05	89	4	80 - 120	20
Toluene		4.37	mg/Kg	50	0.10	<0.05	87	4	80 - 120	20
Ethylbenzene		4.4	mg/Kg	50	0.10	<0.05	88	5	80 - 120	20
M,P,O-Xylene		14.4	mg/Kg	50	0.30	<0.05	96	4	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.03	mg/Kg	50	0.10	100	72 - 128
4-BFB		4.6	mg/Kg	50	0.10	92	72 - 128

Sample: MSD QC Batch: QC04456

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Benzene		4.54	mg/Kg	50	0.10	<0.05	90	1	80 - 120	20
Toluene		4.39	mg/Kg	50	0.10	<0.05	87	0	80 - 120	20
Ethylbenzene		4.4	mg/Kg	50	0.10	<0.05	88	0	80 - 120	20
M,P,O-Xylene		14.4	mg/Kg	50	0.30	<0.05	96	0	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		4.79	mg/Kg	50	0.10	95	72 - 128
4-BFB		4.36	mg/Kg	50	0.10	87	72 - 128

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC04456

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.091	91	80 - 120	8/24/00
Toluene		mg/Kg	0.10	0.088	88	80 - 120	8/24/00
Ethylbenzene		mg/Kg	0.10	0.09	90	80 - 120	8/24/00
M,P,O-Xylene		mg/Kg	0.30	0.294	98	80 - 120	8/24/00

Sample: CCV (2) QC Batch: QC04456

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.091	91	80 - 120	8/24/00
Toluene		mg/Kg	0.10	0.088	88	80 - 120	8/24/00
Ethylbenzene		mg/Kg	0.10	0.09	90	80 - 120	8/24/00
M,P,O-Xylene		mg/Kg	0.30	0.294	98	80 - 120	8/24/00

Sample: ICV (1)

QC Batch: QC04456

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.106	106	80 - 120	8/24/00
Toluene		mg/Kg	0.10	0.102	102	80 - 120	8/24/00
Ethylbenzene		mg/Kg	0.10	0.09	90	80 - 120	8/24/00
M,P,O-Xylene		mg/Kg	0.30	0.296	98	80 - 120	8/24/00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, Tx. 79710

Report Date: September 8, 2000

Order ID Number: A00082112

Project Number: 00-0104
Project Name: J.B. Phillips
Project Location: Lea County, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
151762	East Wall	Soil	8/17/00	17:23	8/19/00
151763	West Wall	Soil	8/17/00	17:27	8/19/00
151764	North Wall	Soil	8/17/00	17:30	8/19/00
151765	South Wall	Soil	8/17/00	17:35	8/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 151762 - East Wall

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC04729 Date Analyzed: 9/6/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04117 Date Prepared: 9/5/00

Param	Flag	Result	Units	Dilution	RDL
CL		220	mg/Kg	1	0.50

Sample: 151763 - West Wall

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC04729 Date Analyzed: 9/6/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04117 Date Prepared: 9/5/00

Param	Flag	Result	Units	Dilution	RDL
CL		60	mg/Kg	1	0.50

Sample: 151764 - North Wall

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC04729 Date Analyzed: 9/6/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04117 Date Prepared: 9/5/00

Param	Flag	Result	Units	Dilution	RDL
CL		38	mg/Kg	1	0.50

Sample: 151765 - South Wall

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC04729 Date Analyzed: 9/6/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04117 Date Prepared: 9/5/00

Param	Flag	Result	Units	Dilution	RDL
CL		26	mg/Kg	1	0.50

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC04729

Param	Flag	Results	Units	Reporting Limit
CL		9.99	mg/Kg	0.50

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC04729

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		40.75	mg/Kg	1	25	18	91		80 - 120	20

Sample: MSD QC Batch: QC04729

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		40.85	mg/Kg	1	25	18	91	0	80 - 120	20

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC04729

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.72	93	80 - 120	9/6/00

Sample: ICV (1) QC Batch: QC04729

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.53	92	80 - 120	9/6/00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, Tx. 79710

Report Date: September 25, 2000

Order ID Number: A00091905

Project Number: 00-0104
Project Name: J.B. Phillips
Project Location: Lea County, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
153796	JRP E-1	Soil	9/15/00	13:25	9/19/00
153797	JRP E-2	Soil	9/15/00	13:40	9/19/00
153798	JRP N-1	Soil	9/15/00	14:10	9/19/00
153799	JRP N-2	Soil	9/15/00	14:00	9/19/00
153800	JRP W-1	Soil	9/15/00	15:25	9/19/00
153801	JRP W-2	Soil	9/15/00	15:10	9/19/00
153802	JRP W-3	Soil	9/15/00	15:00	9/19/00
153803	JRP W-4	Soil	9/15/00	14:42	9/19/00
153804	JRP S-1	Soil	9/15/00	15:45	9/19/00
153805	JRP S-2	Soil	9/15/00	15:55	9/19/00
153806	JRP B-1	Soil	9/15/00	16:05	9/19/00
153807	JRP B-2	Soil	9/15/00	16:15	9/19/00
153808	JRP B-3	Soil	9/15/00	16:25	9/19/00
153809	JRP B-4	Soil	9/15/00	16:30	9/19/00
153810	JRP B-5	Soil	9/15/00	16:37	9/19/00
153811	SP-1	Soil	9/15/00	16:47	9/19/00
153812	SP-2	Soil	9/15/00	16:42	9/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Analytical and Quality Control Report

Sample: 153796 - JRP E-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		89	mg/Kg	1	50

Sample: 153796 - JRP E-1

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153797 - JRP E-2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		128	mg/Kg	1	50

Sample: 153797 - JRP E-2

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153798 - JRP N-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		95	mg/Kg	1	50

Sample: 153798 - JRP N-1

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153799 - JRP N-2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		178	mg/Kg	1	50

Sample: 153799 - JRP N-2

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153800 - JRP W-1

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC05044	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB04392	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		<0.05	mg/Kg	50	0.001
Total BTEX		<0.05	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		4.12	mg/Kg	1	0.10	82	72 - 128
4-BFB		4.07	mg/Kg	1	0.10	81	72 - 128

Sample: 153800 - JRP W-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		89	mg/Kg	1	50

Sample: 153800 - JRP W-1

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153801 - JRP W-2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		627	mg/Kg	1	50

Sample: 153801 - JRP W-2

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		665	mg/Kg	1	0.10

Sample: 153802 - JRP W-3

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		313	mg/Kg	1	50

Sample: 153802 - JRP W-3

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		630	mg/Kg	1	0.10

Sample: 153803 - JRP W-4

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		<50	mg/Kg	1	50

Sample: 153803 - JRP W-4

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153804 - JRP S-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		55	mg/Kg	1	50

Sample: 153804 - JRP S-1

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153805 - JRP S-2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05035	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04385	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		63	mg/Kg	1	50

Sample: 153805 - JRP S-2

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153806 - JRP B-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05036	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04386	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		268	mg/Kg	1	50

Sample: 153806 - JRP B-1

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153807 - JRP B-2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05036	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04386	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		136	mg/Kg	1	50

Sample: 153807 - JRP B-2

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		366	mg/Kg	1	0.10

Sample: 153808 - JRP B-3

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC05044	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB04392	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		0.867	mg/Kg	50	0.001
Total BTEX		0.867	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		5.81	mg/Kg	1	0.10	116	72 - 128
4-BFB		5.77	mg/Kg	1	0.10	116	72 - 128

Sample: 153808 - JRP B-3

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05036	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04386	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		269	mg/Kg	1	50

Sample: 153808 - JRP B-3

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153809 - JRP B-4

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC05044	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB04392	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		<0.05	mg/Kg	50	0.001
M,P,O-Xylene		1.12	mg/Kg	50	0.001
Total BTEX		1.12	mg/Kg	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		5.68	mg/Kg	1	0.10	114	72 - 128
4-BFB		5.79	mg/Kg	1	0.10	116	72 - 128

Sample: 153809 - JRP B-4

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05036	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04386	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		487	mg/Kg	1	50

Sample: 153809 - JRP B-4

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153810 - JRP B-5

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC05044	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB04392	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.1	mg/Kg	100	0.001
Toluene		<0.1	mg/Kg	100	0.001
Ethylbenzene		1.04	mg/Kg	100	0.001
M,P,O-Xylene		3.24	mg/Kg	100	0.001
Total BTEX		4.28	mg/Kg	100	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		11.8	mg/Kg	1	0.10	118	72 - 128
4-BFB		12.3	mg/Kg	1	0.10	123	72 - 128

Sample: 153810 - JRP B-5

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05036	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04386	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		1840	mg/Kg	1	50

Sample: 153810 - JRP B-5

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		502	mg/Kg	1	0.10

Sample: 153811 - SP-1

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05036	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04386	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		162	mg/Kg	1	50

Sample: 153811 - SP-1

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 153812 - SP-2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05036	Date Analyzed:	9/20/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04386	Date Prepared:	9/20/00

Param	Flag	Result	Units	Dilution	RDL
DRO		53	mg/Kg	1	50

Sample: 153812 - SP-2

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05045	Date Analyzed:	9/19/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04393	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC05035

Param	Flag	Results	Units	Reporting Limit
DRO		<50	mg/Kg	50

Sample: Method Blank QCBatch: QC05036

Param	Flag	Results	Units	Reporting Limit
DRO		<50	mg/Kg	50

Sample: Method Blank QCBatch: QC05044

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.05	mg/Kg	0.001
Toluene		<0.05	mg/Kg	0.001
Ethylbenzene		<0.05	mg/Kg	0.001
M,P,O-Xylene		<0.05	mg/Kg	0.001
Total BTEX		<0.05	mg/Kg	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		5.89	mg/Kg	0.10	118	72 - 128
4-BFB		5.79	mg/Kg	0.10	116	72 - 128

Sample: Method Blank QCBatch: QC05045

Param	Flag	Results	Units	Reporting Limit
GRO		<5	mg/Kg	0.10

Quality Control Report

Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC05035

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[1]	211	mg/Kg	1	250	<50	84		70 - 130	20

Sample: LCSD QC Batch: QC05035

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[2]	244	mg/Kg	1	250	<50	97	14	70 - 130	20

Sample: LCS QC Batch: QC05036

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[3]	200	mg/Kg	1	250	<50	80		70 - 130	20

Sample: LCSD QC Batch: QC05036

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[4]	209	mg/Kg	1	250	<50	83	4	70 - 130	20

Sample: LCS QC Batch: QC05044

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		5.58	mg/Kg	50	0.10	<0.05	112		80 - 120	20
Benzene		5.43	mg/Kg	50	0.10	<0.05	108		80 - 120	20
Toluene		5.36	mg/Kg	50	0.10	<0.05	107		80 - 120	20
Ethylbenzene		5.22	mg/Kg	50	0.10	<0.05	104		80 - 120	20
M,P,O-Xylene		16.2	mg/Kg	50	0.30	<0.05	108		80 - 120	20

[1]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.
[2]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.
[3]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.
[4]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.5	mg/Kg	50	0.10	110	72 - 128
4-BFB		5.61	mg/Kg	50	0.10	112	72 - 128

Sample: LCSD QC Batch: QC05044

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		5.33	mg/Kg	50	0.10	<0.05	107	4	80 - 120	20
Benzene		5.4	mg/Kg	50	0.10	<0.05	108	0	80 - 120	20
Toluene		5.41	mg/Kg	50	0.10	<0.05	108	1	80 - 120	20
Ethylbenzene		5.54	mg/Kg	50	0.10	<0.05	111	6	80 - 120	20
M,P,O-Xylene		16.6	mg/Kg	50	0.30	<0.05	110	2	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.62	mg/Kg	50	0.10	112	72 - 128
4-BFB		5.67	mg/Kg	50	0.10	114	72 - 128

Sample: LCS QC Batch: QC05045

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.02	mg/Kg	1	1	<5	102		80 - 120	20

Sample: LCSD QC Batch: QC05045

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.18	mg/Kg	1	1	<5	118	14	80 - 120	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC05035

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[5]	59	mg/Kg	1	250	63	-1		70 - 130	20

Sample: MSD QC Batch: QC05035

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[6]	63	mg/Kg	1	250	63	0	-200	70 - 130	20

Sample: MS QC Batch: QC05036

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[7]	52	mg/Kg	1	250	53	0		70 - 130	20

Sample: MSD QC Batch: QC05036

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[8]	<50	mg/Kg	1	250	53	-21	-192	70 - 130	20

Sample: MS QC Batch: QC05044

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Benzene		4.55	mg/Kg	50	0.10	<0.05	91		80 - 120	20
Toluene		4.45	mg/Kg	50	0.10	<0.05	89		80 - 120	20
Ethylbenzene		4.65	mg/Kg	50	0.10	<0.05	93		80 - 120	20
M,P,O-Xylene		13.7	mg/Kg	50	0.30	<0.05	91		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.5	mg/Kg	50	0.10	110	72 - 128
4-BFB		5.55	mg/Kg	50	0.10	111	72 - 128

[5]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.
[6]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.
[7]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.
[8]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO INSUFFICIENT SPIKE IN MS AND MSD.

Sample: MSD QC Batch: QC05044

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Benzene		4.93	mg/Kg	50	0.10	<0.05	99	8	80 - 120	20
Toluene		4.85	mg/Kg	50	0.10	<0.05	97	9	80 - 120	20
Ethylbenzene		4.84	mg/Kg	50	0.10	<0.05	97	4	80 - 120	20
M,P,O-Xylene		14.6	mg/Kg	50	0.30	<0.05	97	6	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.81	mg/Kg	50	0.10	116	72 - 128
4-BFB		5.9	mg/Kg	50	0.10	118	72 - 128

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC05035

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	255	102	70 - 130	9/20/00

Sample: CCV (2) QC Batch: QC05035

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	309	123	70 - 130	9/20/00

Sample: ICV (1) QC Batch: QC05035

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	276	110	70 - 130	9/20/00

Sample: CCV (1) QC Batch: QC05036

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	178	71	70 - 130	9/20/00

Sample: CCV (2) QC Batch: QC05036

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	254	101	70 - 130	9/20/00

Sample: ICV (1) QC Batch: QC05036

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	270	108	70 - 130	9/20/00

Sample: CCV (1) QC Batch: QC05044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.091	91	80 - 120	9/19/00
Toluene		mg/Kg	0.10	0.089	89	80 - 120	9/19/00
Ethylbenzene		mg/Kg	0.10	0.093	93	80 - 120	9/19/00
M,P,O-Xylene		mg/Kg	0.30	0.274	91	80 - 120	9/19/00

Sample: CCV (2) QC Batch: QC05044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.116	116	80 - 120	9/19/00
Toluene		mg/Kg	0.10	0.116	116	80 - 120	9/19/00
Ethylbenzene		mg/Kg	0.10	0.12	120	80 - 120	9/19/00
M,P,O-Xylene		mg/Kg	0.30	0.36	120	80 - 120	9/19/00

Sample: ICV (1) QC Batch: QC05044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.102	102	80 - 120	9/19/00
Toluene		mg/Kg	0.10	0.1	100	80 - 120	9/19/00
Ethylbenzene		mg/Kg	0.10	0.099	99	80 - 120	9/19/00
M,P,O-Xylene		mg/Kg	0.30	0.299	99	80 - 120	9/19/00

Sample: CCV (1) QC Batch: QC05045

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	0.986	98	80 - 120	9/19/00

Sample: ICV (1) QC Batch: QC05045

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	0.998	99	80 - 120	9/19/00

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A00091905

Company Name: Larson & Associates
Phone #: (915) 687-0901
Address: (Street, City, Zip) 2501 Learmont Rd.
Fax #: (915) 687-0456
Contact Person: Mark Larson
Invoice to: (If different from above) P.O. Box 50685, Midland TX 79710-0685
Project #: 00-0104
Project Name: J.P. Phillips
Project Location: U.A. Phillips Tank Battery
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
153796	JRP E-1	2			X								X		9/15	1325
97	E-2	2														1340
98	N-1	2														1410
99	N-2	2														1400
800	W-1	2														1525
801	W-2	2														1510
02	W-3	2														1500
03	W-4	2														1442
04	S-1	2														1545
05	S-2	2														1555
06	B-1	2														1605

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	~~TPH 418.1/TX1005~~ 8015 GRO/DRO	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH							Turn Around Time if different from standard	Hold
	X	X																				

Relinquished by: 9-17-00 16:00
Received by: Helen Shelton 9/17/00 16:00
Relinquished by: Helen Shelton 9/18/00 5:30PM
Received by:
Relinquished by:
Received at Laboratory by: Jodi Mealy 9-19-00 10:00

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp -1 °
Log-in Review MS

REMARKS:
1 week turn around 9/25/00

Carrier # Greyhound GU-159-384-853-1

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 22 samples-HS

6701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # A0009190 5

Company Name: Larson & Associates, Inc. Phone #: (915) 687-0901

Address: (Street, City, Zip) 2501 Learmont Ave, Midland, 79705 Fax #: (915) 687-0456

Contact Person: Mark Larson

Invoice to: (If different from above) P.O. Box 2506 50685 Midland, TX 79705

Project #: 00-0104 Project Name: J.R. Phillips

Project Location: J.R. Phillips Tank Battery Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	NaHSO4	H2SO4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
153707	J.R.P. B-2	2			X								X		9/15	1615
08	B-3	2			↓								↓		↓	1625
09	B-4	2														1626
10	B-5	2														1637
11	SP-MW-1	2														1647
12	SP-MW-2	2														1642
	No Samples		Follow →													

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005 8015 GRO/DRO	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH						Turn Around Time if different from stand rd	Hold
	X	X																			
	↓	↓																			

Relinquished by: Date: 9-17-00 Time: 16:00 Received by: Helen Shelton Date: 9/17/00 Time: 16:00

Relinquished by: Helen Shelton Date: 9/18/00 Time: 5:30PM Received by: Date: Time:

Relinquished by: Date: Time: Received at Laboratory by: Vicki Beasley Date: 9-18-00 Time: 1000

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 12 samples - PC

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp -1° °

Log-in Review MS

Carrier # Greyhound GH-159-384-853-1

REMARKS:

1 week turn around

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, Tx. 79710

Report Date: October 4, 2000

Order ID Number: A00091905

Project Number: 00-0104
Project Name: J.B. Phillips
Project Location: Lea County, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
153801	JRP W-2	Soil	9/15/00	15:10	9/19/00
153802	JRP W-3	Soil	9/15/00	15:00	9/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Report Date: October 4, 2000
00-0104

Order Number: A00091905
J.B. Phillips

Analytical and Quality Control Report

Sample: 153801 - JRP W-2

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC05044	Date Analyzed:	9/19/00
Analyst.	RC	Preparation Method:	5035	Prep Batch:	PB04392	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	1	0.001
Toluene		<0.05	mg/Kg	1	0.001
Ethylbenzene		0.264	mg/Kg	1	0.001
M,P,O-Xylene		0.947	mg/Kg	1	0.001
Total BTEX		1.211	mg/Kg	1	0.001

Sample: 153802 - JRP W-3

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC05044	Date Analyzed:	9/19/00
Analyst.	RC	Preparation Method:	5035	Prep Batch:	PB04392	Date Prepared:	9/19/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	1	0.001
Toluene		<0.05	mg/Kg	1	0.001
Ethylbenzene		0.26	mg/Kg	1	0.001
M,P,O-Xylene		1.01	mg/Kg	1	0.001
Total BTEX		1.27	mg/Kg	1	0.001

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC05044

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.05	mg/Kg	0.001
Toluene		<0.05	mg/Kg	0.001
Ethylbenzene		<0.05	mg/Kg	0.001
M,P,O Xylene		<0.05	mg/Kg	0.001
Total BTEX		<0.05	mg/Kg	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		5.89	mg/Kg	0.10	118	72 - 128
4 BFB		5.79	mg/Kg	0.10	116	72 - 128

Report Date: October 4, 2000 | Order Number: A00091905 | Page Number: 3 of 5
00-0101 | J.B. Phillips | Lea County, NM

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC05044

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		5.58	mg/Kg	50	0.10	<0.05	112		80 - 120	20
Benzene		5.43	mg/Kg	50	0.10	<0.05	108		80 - 120	20
Toluene		5.36	mg/Kg	50	0.10	<0.05	107		80 - 120	20
Ethylbenzene		5.22	mg/Kg	50	0.10	<0.05	104		80 - 120	20
M,P,O-Xylene		16.2	mg/Kg	50	0.30	<0.05	108		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.5	mg/Kg	50	0.10	110	72 - 128
4-BFB		5.61	mg/Kg	50	0.10	112	72 - 128

Sample: LCSD QC Batch: QC05044

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		5.33	mg/Kg	50	0.10	<0.05	107	4	80 - 120	20
Benzene		5.4	mg/Kg	50	0.10	<0.05	108	0	80 - 120	20
Toluene		5.41	mg/Kg	50	0.10	<0.05	108	1	80 - 120	20
Ethylbenzene		5.54	mg/Kg	50	0.10	<0.05	111	6	80 - 120	20
M,P,O-Xylene		16.6	mg/Kg	50	0.30	<0.05	110	2	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.62	mg/Kg	50	0.10	112	72 - 128
4-BFB		5.67	mg/Kg	50	0.10	114	72 - 128

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC05044

Report Date: October 4, 2000 Order Number: A00091905 Page Number: 4 of 5
00-0104 J.B. Phillips Lea County, NM

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Benzene		4.55	mg/Kg	50	0.10		91		80 - 120	20
Benzene		4.55	mg/Kg	50	0.10	<0.05	91		80 - 120	20
Toluene		4.45	mg/Kg	50	0.10		89		80 - 120	20
Toluene		4.45	mg/Kg	50	0.10	<0.05	89		80 - 120	20
Ethylbenzene		4.65	mg/Kg	50	0.10		93		80 - 120	20
Ethylbenzene		4.65	mg/Kg	50	0.10	<0.05	93		80 - 120	20
M,P,O Xylene		13.7	mg/Kg	50	0.30		91		80 - 120	20
M,P,O Xylene		13.7	mg/Kg	50	0.30	<0.05	91		80 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.5	mg/Kg	50	0.10	110	72 - 128
4-BFB		5.55	mg/Kg	50	0.10	111	72 128

Sample: MSD QC Batch: QC05044

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Benzene		4.93	mg/Kg	50	0.10		99	8	80 - 120	20
Benzene		4.93	mg/Kg	50	0.10	<0.05	99	8	80 - 120	20
Toluene		4.85	mg/Kg	50	0.10		97	9	80 - 120	20
Toluene		4.85	mg/Kg	50	0.10	<0.05	97	9	80 - 120	20
Ethylbenzene		4.84	mg/Kg	50	0.10		97	4	80 - 120	20
Ethylbenzene		4.84	mg/Kg	50	0.10	<0.05	97	4	80 120	20
M,P,O-Xylene		14.6	mg/Kg	50	0.30		97	6	80 120	20
M,P,O-Xylene		14.6	mg/Kg	50	0.30	<0.05	97	6	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.81	mg/Kg	50	0.10	116	72 128
4-BFB		5.9	mg/Kg	50	0.10	118	72 - 128

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC05044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.091	91	80 - 120	9/19/00

Continued ...

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... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		mg/Kg	0.10	0.089	89	80 - 120	9/19/00
Ethylbenzene		mg/Kg	0.10	0.093	93	80 - 120	9/19/00
M,P,O-Xylene		mg/Kg	0.30	0.274	91	80 - 120	9/19/00

Sample: CCV (2) QC Batch: QC05044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.116	116	80 - 120	9/19/00
Toluene		mg/Kg	0.10	0.116	116	80 - 120	9/19/00
Ethylbenzene		mg/Kg	0.10	0.12	120	80 - 120	9/19/00
M,P,O-Xylene		mg/Kg	0.30	0.36	120	80 - 120	9/19/00

Sample: ICV (1) QC Batch: QC05044

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.102	102	80 - 120	9/19/00
Toluene		mg/Kg	0.10	0.1	100	80 - 120	9/19/00
Ethylbenzene		mg/Kg	0.10	0.099	99	80 - 120	9/19/00
M,P,O-Xylene		mg/Kg	0.30	0.299	99	80 - 120	9/19/00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, Tx. 79710

Report Date: October 11, 2000

Order ID Number: A00091905

Project Number: 00-0104
Project Name: J.B. Phillips
Project Location: Lea County, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace-Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
153796	JRP E-1	Soil	9/15/00	13:25	9/19/00
153797	JRP E-2	Soil	9/15/00	13:40	9/19/00
153798	JRP N-1	Soil	9/15/00	14:10	9/19/00
153799	JRP N-2	Soil	9/15/00	14:00	9/19/00
153800	JRP W-1	Soil	9/15/00	15:25	9/19/00
153801	JRP W-2	Soil	9/15/00	15:10	9/19/00
153802	JRP W-3	Soil	9/15/00	15:00	9/19/00
153803	JRP W-4	Soil	9/15/00	14:42	9/19/00
153804	JRP S-1	Soil	9/15/00	15:45	9/19/00
153805	JRP S-2	Soil	9/15/00	15:55	9/19/00
153806	JRP B-1	Soil	9/15/00	16:05	9/19/00
153807	JRP B-2	Soil	9/15/00	16:15	9/19/00
153808	JRP B-3	Soil	9/15/00	16:25	9/19/00
153809	JRP B-4	Soil	9/15/00	16:30	9/19/00
153810	JRP B-5	Soil	9/15/00	16:37	9/19/00
153811	SP-1	Soil	9/15/00	16:47	9/19/00
153812	SP-2	Soil	9/15/00	16:42	9/19/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Report Date: October 11, 2000 | Order Number: A00091905 | Page Number: 2 of 6
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Analytical and Quality Control Report

Sample: 153796 - JRP E-1

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		78	mg/Kg	1	0.50

Sample: 153797 - JRP E-2

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		59	mg/Kg	1	0.50

Sample: 153798 - JRP N-1

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		920	mg/Kg	1	0.50

Sample: 153799 - JRP N-2

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		590	mg/Kg	1	0.50

Sample: 153800 - JRP W-1

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		120	mg/Kg	1	0.50

Sample: 153801 - JRP W-2

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

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Param	Flag	Result	Units	Dilution	RDL
CL		250	mg/Kg	1	0.50

Sample: 153802 - JRP W-3

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		210	mg/Kg	1	0.50

Sample: 153803 - JRP W-4

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		1100	mg/Kg	1	0.50

Sample: 153804 - JRP S-1

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		230	mg/Kg	1	0.50

Sample: 153805 - JRP S-2

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05511 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		750	mg/Kg	1	0.50

Sample: 153806 - JRP B-1

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05512 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		200	mg/Kg	1	0.50

Sample: 153807 - JRP B-2

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05512 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		27	mg/Kg	1	0.50

Sample: 153808 - JRP B-3

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05512 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		20	mg/Kg	1	0.50

Sample: 153809 - JRP B-4

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05512 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		66	mg/Kg	1	0.50

Sample: 153810 - JRP B-5

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05512 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		67	mg/Kg	1	0.50

Sample: 153811 - SP-1

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05512 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		2600	mg/Kg	1	0.50

Sample: 153812 - SP-2

Analysis: Ion Chromatography (IC) Analytical Method: E 300.0 QC Batch: QC05512 Date Analyzed: 10/9/00
Analyst: JS Preparation Method: N/A Prep Batch: PB04807 Date Prepared: 10/9/00

Param	Flag	Result	Units	Dilution	RDL
CL		3700	mg/Kg	1	0.50

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC05511

Param	Flag	Results	Units	Reporting Limit
CL		4.43	mg/Kg	0.50

Sample: Method Blank QCBatch: QC05512

Param	Flag	Results	Units	Reporting Limit
CL		4.55	mg/Kg	0.50

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC05511

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		1927.47	mg/Kg	1	1250	750	94		80 - 120	20

Sample: MSD QC Batch: QC05511

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		1923.89	mg/Kg	1	1250	750	93	0	80 - 120	20

Sample: MS QC Batch: QC05512

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		814.58	mg/Kg	1	625	240	91		80 - 120	20

Sample: MSD QC Batch: QC05512

Report Date: October 11, 2000 | Order Number: A00091905 | Page Number: 6 of 6
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Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
CL		808.66	mg/Kg	1	625	240	90	1	80 - 120	20

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC05511

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.56	92	80 - 120	10/9/00

Sample: ICV (1) QC Batch: QC05511

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.52	92	80 - 120	10/9/00

Sample: CCV (1) QC Batch: QC05512

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.54	92	80 - 120	10/9/00

Sample: ICV (1) QC Batch: QC05512

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
CL		mg/L	12.50	11.65	93	80 - 120	10/9/00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Mark Larson
Larson & Associates, Inc.
P.O. Box 50685
Midland, Tx. 79710

Report Date: October 16, 2000

Order ID Number: A00100507

Project Number: 00-0104
Project Name: J.B. Phillips
Project Location: Lea County, NM

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
155024	W-2	Soil	10/3/00	9:15	10/5/00
155025	W-3	Soil	10/3/00	9:50	10/5/00
155026	B-5	Soil	10/3/00	9:55	10/5/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director

Report Date: October 16, 2000 | Order Number: A00100507 | Page Number: 2 of 7
00-0104 | J.B. Phillips | Lea County, NM

Analytical and Quality Control Report

Sample: 155024 - W-2

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05443	Date Analyzed:	10/5/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04745	Date Prepared:	10/5/00

Param	Flag	Result	Units	Dilution	RDL
DRO		1050	mg/Kg	1	50

Sample: 155024 - W-2

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05441	Date Analyzed:	10/9/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04742	Date Prepared:	10/9/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 155025 - W-3

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05443	Date Analyzed:	10/5/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB04745	Date Prepared:	10/5/00

Param	Flag	Result	Units	Dilution	RDL
DRO		72	mg/Kg	1	50

Sample: 155025 - W-3

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05441	Date Analyzed:	10/9/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB04742	Date Prepared:	10/9/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Sample: 155026 - B-5

Analysis:	BTEX	Analytical Method:	S 8021B	QC Batch:	QC05439	Date Analyzed:	10/9/00
Analyst:	RC	Preparation Method:	5035	Prep Batch:	PB04741	Date Prepared:	10/9/00

Param	Flag	Result	Units	Dilution	RDL
Benzene		<0.05	mg/Kg	50	0.001
Toluene		<0.05	mg/Kg	50	0.001
Ethylbenzene		0.106	mg/Kg	50	0.001
M,P,O-Xylene		0.227	mg/Kg	50	0.001
Total BTEX		0.333	mg/Kg	50	0.001

Report Date: October 16, 2000 Order Number: A00100507 Page Number: 3 of 7
00-0104 J.B. Phillips Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
TFT		5.37	mg/Kg	1	0.10	107	72 - 128
4-BFB		5.3	mg/Kg	1	0.10	106	72 - 128

Sample: 155026 - B-5

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	QC Batch:	QC05443	Date Analyzed:	10/5/00
Analyst:	BP	Preparation Method:	3550 B	Prep Batch:	PB01745	Date Prepared:	10/5/00

Param	Flag	Result	Units	Dilution	RDL
DRO		566	mg/Kg	1	50

Sample: 155026 - B-5

Analysis:	TPH GRO	Analytical Method:	8015B	QC Batch:	QC05441	Date Analyzed:	10/9/00
Analyst:	RC	Preparation Method:	N/A	Prep Batch:	PB01742	Date Prepared:	10/9/00

Param	Flag	Result	Units	Dilution	RDL
GRO		<5	mg/Kg	1	0.10

Quality Control Report
Method Blank

Sample: Method Blank QCBatch: QC05439

Param	Flag	Results	Units	Reporting Limit
Benzene		<0.05	mg/Kg	0.001
Toluene		<0.05	mg/Kg	0.001
Ethylbenzene		<0.05	mg/Kg	0.001
M,P,O-Xylene		<0.05	mg/Kg	0.001
Total BTEX		<0.05	mg/Kg	0.001

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
TFT		5.5	mg/Kg	0.10	110	72 - 128
4-BFB		4.8	mg/Kg	0.10	96	72 - 128

Sample: Method Blank QCBatch: QC05441

Param	Flag	Results	Units	Reporting Limit
GRO		<5	mg/Kg	0.10

Report Date: October 16, 2000 | Order Number: A00100507 | Page Number: 4 of 7
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Sample: Method Blank QCBatch: QC05443

Param	Flag	Results	Units	Reporting Limit
DRO		<50	mg/Kg	50

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Sample: LCS QC Batch: QC05439

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		5.22	mg/Kg	50	0.10	<0.05	104		80 - 120	20
Benzene		4.74	mg/Kg	50	0.10	<0.05	94		80 - 120	20
Toluene		4.57	mg/Kg	50	0.10	<0.05	91		80 - 120	20
Ethylbenzene		4.55	mg/Kg	50	0.10	<0.05	91		80 - 120	20
M,P,O-Xylene		15.2	mg/Kg	50	0.30	<0.05	101		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.2	mg/Kg	50	0.10	104	72 - 128
4-BFB		4.76	mg/Kg	50	0.10	95	72 - 128

Sample: LCSD QC Batch: QC05439

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
MTBE		5.14	mg/Kg	50	0.10	<0.05	102	2	80 - 120	20
Benzene		4.82	mg/Kg	50	0.10	<0.05	96	2	80 - 120	20
Toluene		4.58	mg/Kg	50	0.10	<0.05	91	0	80 - 120	20
Ethylbenzene		4.62	mg/Kg	50	0.10	<0.05	92	2	80 - 120	20
M,P,O-Xylene		15.5	mg/Kg	50	0.30	<0.05	103	2	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
TFT		5.26	mg/Kg	50	0.10	105	72 - 128
4-BFB		4.81	mg/Kg	50	0.10	96	72 - 128

Sample: LCS QC Batch: QC05441

Report Date: October 16, 2000 Order Number: A00100507 Page Number: 5 of 7
00-0104 J.B. Phillips Lea County, NM

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.11	mg/Kg	1	1	<5	111		80 - 120	20

Sample: LCSD QC Batch: QC05441

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
GRO		1.01	mg/Kg	1	1	<5	101	9	80 - 120	20

Sample: LCS QC Batch: QC05443

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[1]	228	mg/Kg	1	250	<50	91		70 - 130	20

Sample: LCSD QC Batch: QC05443

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[2]	223	mg/Kg	1	250	<50	89	2	70 - 130	20

Quality Control Report
Matrix Spikes and Duplicate Spikes

Sample: MS QC Batch: QC05443

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	[3]	1030	mg/Kg	1	250	566	185		70 - 130	20

Sample: MSD QC Batch: QC05443

[1]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO MATRIX EFFECTS OF SPIKED SAMPLE.
[2]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO MATRIX EFFECTS OF SPIKED SAMPLE.
[3]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO MATRIX EFFECTS OF SPIKED SAMPLE.

Report Date: October 16, 2000 Order Number: A00100507 Page Number: 6 of 7
00-0104 J.B. Phillips Lea County, NM

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
DRO	4	1060	mg/Kg	1	250	566	197	6	70 - 130	20

Quality Control Report
Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC05439

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.095	95	80 - 120	10/9/00
Toluene		mg/Kg	0.10	0.093	93	80 - 120	10/9/00
Ethylbenzene		mg/Kg	0.10	0.091	91	80 - 120	10/9/00
M,P,O-Xylene		mg/Kg	0.30	0.32	106	80 - 120	10/9/00

Sample: ICV (1) QC Batch: QC05439

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.10	0.096	96	80 - 120	10/9/00
Toluene		mg/Kg	0.10	0.092	92	80 - 120	10/9/00
Ethylbenzene		mg/Kg	0.10	0.094	94	80 - 120	10/9/00
M,P,O-Xylene		mg/Kg	0.30	0.313	104	80 - 120	10/9/00

Sample: CCV (1) QC Batch: QC05441

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.02	102	80 - 120	10/9/00

Sample: ICV (1) QC Batch: QC05441

Continued ...

[4]LCS AND LCSD WERE USED FOR %EA AND RPD DUE TO MATRIX EFFECTS OF SPIKED SAMPLE.

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1	1.04	104	80 - 120	10/9/00

Sample: CCV (1) QC Batch: QC05443

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	208	83	70 - 130	10/5/00

Sample: ICV (1) QC Batch: QC05443

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	222	88	70 - 130	10/5/00