NM1 - 30

C-138

YEAR(S):

2004-2002

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised March 17, 1999

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☑	4. Generator Navajo Refining Co.
Verbal Approval Received: Yes ☑ No ☐ MARTYNE KIELING 9/24/02	5. Originating Site 501 E. Main Artesia NM 88210
2. Management Facility Destination ARTESIA AERATION	6. Transporter D+J WASTE SERV.
3. Address of Facility Operator Box 310 Hobbs N. Mex.	8. State NM
7. Location of Material (Street Address or ULSTR)	501 E. Main, Artesia, NM

9. Circle One:

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

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Hydrocarbon contaminated Soil (GOH)
01-001

See Attached Memo of Conversation with Charlie Dlymel

Approval Good through Sept 2004, If Still Excavating this Materia at that time a new C-138 and New Analytical will be Needed.
MK

Estimated Volume 10,000 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE Jim Wilson TITLE: MANAGER DATE: 9/25/02
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 505-392-9575

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne Kieling TITLE: Environmental Geologist DATE: 3-11-04

copy mailed to Wilcox Tyme 9-27-02

STATE OF NEW MEXICO
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

✓ Telephone ____ Personal Time 8:00 Am Date 3-11-04

Originating Party: Marlyne Kieling

Other Parties: Charlie Plymel

Subject: C-138 For Hydrocarbon Contaminated Soils From Gas oil Hydro treater unit. They are still Excavating and Seperating out The Pipe and concrete. The C-138 Has been in Place Since September 2002. Do we need a new one or can we keep useing the Same one

Discussion: there Has been Aproximately 18,000 Cy Shiped to Artesia Aeration Since sept 2002.

Conclusions or Agreements: Lets keep this C-138 Active until Sept 2004 - If ~~the~~ Process is Still Active at that time a New C-138 and Analytical will be Required

Distribution

Signed: Marty J. Kieling

CC: Artesia Aeration

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: Navajo Refining Company

ADDRESS: 501 East Main

GENERATING SITE: Navajo Refining Company

COUNTY: Eddy

STATE: NM

TYPE OF WASTE: Hydrocarbon Contaminated soil

ESTIMATED VOLUME: 10000 yards

GENERATING PROCESS: Hydrocarbon contaminated soil excavated from the building of our Gas Oil Hydrotreating Unit.

REMARKS: This waste has been approved to go to CRI

NMOCD FACILITY: Artesia Aeration, L.L.C.

TRUCKING COMPANY: D and J Waste Services

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: 501 EAST MAIN

ARTESIA,NM 88210

DATE: 9/25/02

TraceAnalysis, Inc. 6701 A..,rdeen Ave., Suite 9 Lubbock, TX ..9424-1515 (806) 794-1296

Report Date: February 8, 2002 Order Number: A02012201 Page Number: 1 of 2
N/A TCLP Gas Oil Hydro Artesia

Summary Report

Charlie Plymale
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: February 8, 2002

Order ID Number: A02012201

Project Number: N/A
Project Name: TCLP Gas Oil Hydro -(Hydrocarbon cont-Soil)
Project Location: Artesia

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
189284	Gas Oil Hydro	Soil	1/21/02	9:20	1/22/02

This report consists of a total of 2 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample: 189284 - Gas Oil Hydro

Param Hydro carbon cont-Soil	Flag	Result	Units
Corrosivity			
Corrosivity (EPA limit = >6.5 mm/yr)		non-corrosive	mm/yr
pH (EPA limit = <2 >12.5)		7.3	s.u.
Ignitability		non-ignitable	
Reactivity			
Reactivity		Non-reactive	
Hydrogen Sulfide (EPA limit = 500)		<100	mg/Kg
Hydrogen Cyanide (EPA limit = 250)		<25	mg/Kg
TCLP Mercury (EPA limit = 0.20)		<0.010	mg/L
TCLP Metals			
TCLP Arsenic (EPA limit = 5.0)		<1.00	mg/L
TCLP Barium (EPA limit = 100.0)		<1.00	mg/L
TCLP Cadmium (EPA limit = 1.0)		<0.050	mg/L
TCLP Chromium (EPA limit = 5.0)		<0.050	mg/L
TCLP Lead (EPA limit = 5.0)		<1.00	mg/L
TCLP Selenium (EPA limit = 1.0)		<1.00	mg/L
TCLP Silver (EPA limit = 5.0)		<0.500	mg/L
TCLP Semivolatiles			
Pyridine (EPA limit = 5.0)		<0.05	mg/L
1,4-Dichlorobenzene (EPA limit = 7.5)		<0.05	mg/L
o-Cresol (EPA limit = 200.0)		<0.05	mg/L
m,p-Cresol (EPA limit = 200.0)		<0.05	mg/L
Hexachloroethane (EPA limit = 3.0)		<0.05	mg/L
Nitrobenzene (EPA limit = 2.0)		<0.05	mg/L
Hexachlorobutadiene (EPA limit = 0.5)		<0.05	mg/L
2,4,6-Trichlorophenol (EPA limit = 2.0)		<0.05	mg/L
2,4,5-Trichlorophenol (EPA limit = 400.0)		<0.05	mg/L
2,4-Dinitrotoluene (EPA limit = 0.13)		<0.05	mg/L

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: February 8, 2002 Order Number: A02012201
N/A TCLP Gas Oil Hydro Artesia

Sample 189284 continued ...

Param	Flag	Result	Units
2,4-D (EPA limit = 10.0)		<0.05	mg/L
Hexachlorobenzene (EPA limit = 0.13)		<0.05	mg/L
2,4,5-TP (EPA limit = 1.0)		<0.05	mg/L
Pentachlorophenol (EPA limit = 100.0)		<0.05	mg/L
TCLP Volatiles			
Vinyl Chloride (EPA limit = 0.20)		<0.05	mg/L
1,1-Dichloroethene (EPA limit = 0.70)		<0.05	mg/L
Methyl ethyl ketone (EPA limit = 200.0)		<0.50	mg/L
Chloroform (EPA limit = 6.00)		<0.05	mg/L
1,2-Dichloroethane (EDC) (EPA limit = 0.50)		<0.05	mg/L
Benzene (EPA limit = 0.50)		<0.05	mg/L
Carbon Tetrachloride (EPA limit = 0.50)		<0.05	mg/L
Trichloroethene (TCE) (EPA limit = 0.50)		<0.05	mg/L
Tetrachloroethene (PCE) (EPA limit = 0.70)		<0.05	mg/L
Chlorobenzene (EPA limit = 100.00)		<0.05	mg/L
1,4-Dichlorobenzene (EPA limit = 7.50)		<0.05	mg/L

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Charlie Plymale
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: February 8, 2002

Order ID Number: A02012201

Project Number: N/A
Project Name: TCLP Gas Oil Hydro
Project Location: Artesia

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
189284	Gas Oil Hydro	Soil	1/21/02	9:20	1/22/02

0
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. Note: the RDL is equal to MQL for all organic analytes including TPH.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety including the chain of custody (COC), without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 189284 - Gas Oil Hydro

Analysis: Corrosivity Analytical Method: S 1110 QC Batch: QC17692 Date Analyzed: 1/23/02
Analyst: JS Preparation Method: N/A Prep Batch: PB17321 Date Prepared: 1/23/02

Param	Flag	Result	Units	Dilution	RDL
Corrosivity		non-corrosive	mm/yr	1	
pH		7.3	s.u.	1	

Sample: 189284 - Gas Oil Hydro

Analysis: Ignitability Analytical Method: SW-846 Ch. 7.1 QC Batch: QC17691 Date Analyzed: 1/23/02
Analyst: JS Preparation Method: Prep Batch: PB17320 Date Prepared: 1/23/02

Param	Flag	Result	Units	Dilution	RDL
Ignitability		non-ignitable		1	

Sample: 189284 - Gas Oil Hydro

Analysis: Reactivity Analytical Method: ASTM D 5049-90/4978-95 QC Batch: QC17693 Date Analyzed: 1/23/02
Analyst: JS Preparation Method: N/A Prep Batch: PB17322 Date Prepared: 1/23/02

Param	Flag	Result	Units	Dilution	RDL
Reactivity		Non-reactive		1	
Hydrogen Sulfide		<100	mg/Kg	1	
Hydrogen Cyanide		<25	mg/Kg	1	

Sample: 189284 - Gas Oil Hydro

Analysis: TCLP Hg Analytical Method: S 7470A QC Batch: QC17666 Date Analyzed: 1/28/02
Analyst: BC Preparation Method: E 1311 Prep Batch: PB17298 Date Prepared: 1/24/02

Param	Flag	Result	Units	Dilution	RDL
TCLP Mercury		<0.010	mg/L	1	0.01

Sample: 189284 - Gas Oil Hydro

Analysis: TCLP Metals Analytical Method: S 6010B QC Batch: QC17703 Date Analyzed: 1/28/02
Analyst: BP Preparation Method: 1311 Prep Batch: PB17281 Date Prepared: 1/25/02

Param	Flag	Result	Units	Dilution	RDL
TCLP Arsenic		<1.00	mg/L	10	0.10
TCLP Barium		<1.00	mg/L	10	0.10
TCLP Cadmium		<0.050	mg/L	10	0.005
TCLP Chromium		<0.050	mg/L	10	0.005
TCLP Lead		<1.00	mg/L	10	0.10
TCLP Selenium		<1.00	mg/L	10	0.10
TCLP Silver		<0.500	mg/L	10	0.05

Sample: 189284 - Gas Oil Hydro

Analysis: TCLP Semivolatiles Analytical Method: E 8270C QC Batch: QC17961 Date Analyzed: 2/5/02
Analyst: RC Preparation Method: 1311 Prep Batch: PB17514 Date Prepared: 1/31/02

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.05	mg/L	1	0.25
1,4-Dichlorobenzene		<0.05	mg/L	1	0.25
o-Cresol		<0.05	mg/L	1	0.25
m,p-Cresol		<0.05	mg/L	1	0.25
Hexachloroethane		<0.05	mg/L	1	0.25
Nitrobenzene		<0.05	mg/L	1	0.25
Hexachlorobutadiene		<0.05	mg/L	1	0.25
2,4,6-Trichlorophenol		<0.05	mg/L	1	0.25
2,4,5-Trichlorophenol		<0.05	mg/L	1	0.25
2,4-Dinitrotoluene		<0.05	mg/L	1	0.25
2,4-D		<0.05	mg/L	1	0.25
Hexachlorobenzene		<0.05	mg/L	1	0.25
2,4,5-TP		<0.05	mg/L	1	0.25
Pentachlorophenol		<0.05	mg/L	1	0.25

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		28.09	mg/L	1	80	35	21 - 100
Phenol-d5		18.44	mg/L	1	80	23	10 - 94
Nitrobenzene-d5		37.94	mg/L	1	80	47	35 - 114
2-Fluorobiphenyl		41.88	mg/L	1	80	52	43 - 116
2,4,6-Tribromophenol		61.86	mg/L	1	80	77	10 - 123
Terphenyl-d14		34.62	mg/L	1	80	43	33 - 141

Sample: 189284 - Gas Oil Hydro

Analysis: TCLP Volatiles Analytical Method: S 8260B QC Batch: QC17760 Date Analyzed: 1/30/02
Analyst: JG Preparation Method: E 5030 Prep Batch: PB17365 Date Prepared: 1/29/02

Param	Flag	Result	Units	Dilution	RDL
Vinyl Chloride		<0.05	mg/L	50	0.001
1,1-Dichloroethene		<0.05	mg/L	50	0.001
Methyl ethyl ketone		<0.50	mg/L	50	0.01
Chloroform		<0.05	mg/L	50	0.001
1,2-Dichloroethane (EDC)		<0.05	mg/L	50	0.001
Benzene		<0.05	mg/L	50	0.001
Carbon Tetrachloride		<0.05	mg/L	50	0.001
Trichloroethene (TCE)		<0.05	mg/L	50	0.001
Tetrachloroethene (PCE)		<0.05	mg/L	50	0.001
Chlorobenzene		<0.05	mg/L	50	0.001
1,4-Dichlorobenzene		<0.05	mg/L	50	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51	mg/L	1	50	102	87 - 117
Toluene-d8		49	mg/L	1	50	98	92 - 112
4-Bromofluorobenzene		47	mg/L	1	50	94	85 - 113

Quality Control Report
Method Blank

Method Blank QCBatch: QC17666

Param	Flag	Results	Units	Reporting Limit
TCLP Mercury		<0.010	mg/L	0.01

Method Blank QCBatch: QC17703

Param	Flag	Results	Units	Reporting Limit
TCLP Arsenic		<1.00	mg/L	0.10
TCLP Barium		<1.00	mg/L	0.10
TCLP Cadmium		<0.050	mg/L	0.005
TCLP Chromium		<0.050	mg/L	0.005
TCLP Lead		<1.00	mg/L	0.10
TCLP Selenium		<1.00	mg/L	0.10
TCLP Silver		<0.500	mg/L	0.05

Method Blank QCBatch: QC17760

Param	Flag	Results	Units	Reporting Limit
Vinyl Chloride		<0.05	mg/L	0.001
1,1-Dichloroethene		<0.05	mg/L	0.001
Methyl ethyl ketone		<0.50	mg/L	0.01
Chloroform		<0.05	mg/L	0.001
1,2-Dichloroethane (EDC)		<0.05	mg/L	0.001
Benzene		<0.05	mg/L	0.001
Carbon Tetrachloride		<0.05	mg/L	0.001
Trichloroethene (TCE)		<0.05	mg/L	0.001
Tetrachloroethene (PCE)		<0.05	mg/L	0.001
Chlorobenzene		<0.05	mg/L	0.001
1,4-Dichlorobenzene		<0.05	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.5	mg/L	1	50	99	87 - 117
Toluene-d8		49.5	mg/L	1	50	99	92 - 112
4-Bromofluorobenzene		47	mg/L	1	50	94	85 - 113

Method Blank QCBatch: QC17961

Continued ...

... Continued

Param	Flag	Results	Units	Reporting Limit
Pyridine		<0.05	mg/L	0.25
1,4-Dichlorobenzene		<0.05	mg/L	0.25
o-Cresol		<0.05	mg/L	0.25
m,p-Cresol		<0.05	mg/L	0.25
Hexachloroethane		<0.05	mg/L	0.25
Nitrobenzene		<0.05	mg/L	0.25
Hexachlorobutadiene		<0.05	mg/L	0.25
2,4,6-Trichlorophenol		<0.05	mg/L	0.25
2,4,5-Trichlorophenol		<0.05	mg/L	0.25
2,4-Dinitrotoluene		<0.05	mg/L	0.25
2,4-D		<0.05	mg/L	0.25
Hexachlorobenzene		<0.05	mg/L	0.25
2,4,5-TP		<0.05	mg/L	0.25
Pentachlorophenol		<0.05	mg/L	0.25

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		42.18	mg/L	1	80	52	21 - 100
Phenol-d5		27.82	mg/L	1	80	34	10 - 94
Nitrobenzene-d5		70.89	mg/L	1	80	88	35 - 114
2-Fluorobiphenyl		77.01	mg/L	1	80	96	43 - 116
2,4,6-Tribromophenol		75.52	mg/L	1	80	94	10 - 123
Terphenyl-d14		72.88	mg/L	1	80	91	33 - 141

Quality Control Report
Duplicate Samples

Duplicate QCBatch: QC17691

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Ignitability		non-ignitable	non-ignitable		1	0	20

Duplicate QCBatch: QC17692

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Corrosivity		non-corrosive	non-corrosive	mm/yr	1	0	20
pH		7.4	7.3	s.u.	1	1	20

Duplicate QCBatch: QC17693

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Reactivity		non-reactive	Non-reactive		1	0	20
Hydrogen Sulfide		<100	<100		1	0	20
Hydrogen Cyanide		<25	<25		1	0	20

Quality Control Report
Lab Control Spikes and Duplicate Spikes

Laboratory Control Spikes QCBatch: QC17666

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
TCLP Mercury	0.0531	0.0537	mg/L	1	0.05	<0.010	106	1	80 - 119	20

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

Laboratory Control Spikes QCBatch: QC17703

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
TCLP Arsenic	5.06	4.98	mg/L	10	5	<1.00	101	1	80 - 120	20
TCLP Barium	10.3	10.3	mg/L	10	10	<1.00	103	0	80 - 120	20
TCLP Cadmium	2.34	2.33	mg/L	10	2.50	<0.050	93	0	80 - 120	20
TCLP Chromium	0.957	0.948	mg/L	10	1	<0.050	95	0	80 - 120	20
TCLP Lead	4.66	4.64	mg/L	10	5	<1.00	93	0	80 - 120	20
TCLP Selenium	4.29	4.25	mg/L	10	5	<1.00	85	0	80 - 120	20
TCLP Silver	1.18	1.17	mg/L	10	1.25	<0.500	94	0	80 - 120	20

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

Laboratory Control Spikes QCBatch: QC17760

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Vinyl Chloride	4.62	4.64	mg/L	1	5	<0.05	92	0	56 - 154	20
1,1-Dichloroethene	5.39	5.44	mg/L	1	5	<0.05	107	0	71 - 167	20
Methyl ethyl ketone	6.82	6.95	mg/L	1	5	<0.50	136	1	55 - 160	20
Chloroform	4.99	4.89	mg/L	1	5	<0.05	99	2	76 - 129	20
1,2-Dichloroethane (EDC)	4.59	4.59	mg/L	1	5	<0.05	91	0	63 - 133	20
Benzene	4.78	4.82	mg/L	1	5	<0.05	95	0	78 - 125	20
Carbon Tetrachloride	5.33	5.41	mg/L	1	5	<0.05	106	1	72 - 157	20
Trichloroethene (TCE)	5.33	5.32	mg/L	1	5	<0.05	106	0	76 - 128	20
Tetrachloroethene (PCE)	3.88	3.83	mg/L	1	5	<0.05	77	1	73 - 131	20
Chlorobenzene	5.87	5.83	mg/L	1	5	<0.05	117	0	84 - 124	20
1,4-Dichlorobenzene	5.18	5.17	mg/L	1	5	<0.05	103	0	85 - 116	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Dibromofluoromethane	49.0	48.5	mg/L	1	50	98	97	87 - 117

Continued ...

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
Toluene-d8	50.0	49.5	mg/L	1	50	100	99	92 - 112
4-Bromofluorobenzene	48.5	47.5	mg/L	1	50	97	95	85 - 113

Laboratory Control Spikes

QCBatch: QC17961

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Pyridine	21.98	19.02	mg/L	1	80	<0.05	27	14	0 - 92	20
1,4-Dichlorobenzene	63.91	60.2	mg/L	1	80	<0.05	79	5	20 - 124	20
o-Cresol	57.02	54.76	mg/L	1	80	<0.05	71	4	41 - 92	20
m,p-Cresol	107.28	102.7	mg/L	1	160	<0.05	67	4	7 - 127	20
Hexachloroethane	62.32	58.68	mg/L	1	80	<0.05	77	6	40 - 113	20
Nitrobenzene	59.31	58.4	mg/L	1	80	<0.05	74	1	35 - 186	20
Hexachlorobutadiene	56.76	58.16	mg/L	1	80	<0.05	70	2	24 - 116	20
2,4,6-Trichlorophenol	62.77	63.2	mg/L	1	80	<0.05	78	0	37 - 144	20
2,4,5-Trichlorophenol	64.08	63.77	mg/L	1	80	<0.05	80	0	49 - 185	20
2,4-Dinitrotoluene	64.66	64.12	mg/L	1	80	<0.05	80	0	39 - 139	20
2,4-D	4.48	4.74	mg/L	1	80	<0.05	5	5	2 - 92	20
Hexachlorobenzene	63.77	64.49	mg/L	1	80	<0.05	79	1	0 - 152	20
2,4,5-TP	1.79	2.12	mg/L	1	80	<0.05	2	16	0 - 112	20
Pentachlorophenol	70.91	72.91	mg/L	1	80	<0.05	88	2	14 - 176	20

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

Surrogate	LCS Result	LCSD Result	Units	Dilution	Spike Amount	LCS % Rec	LCSD % Rec	Recovery Limits
2-Fluorophenol	36.31	38.1	mg/L	1	80	45	47	21 - 100
Phenol-d5	25.8	26.52	mg/L	1	80	32	33	10 - 94
Nitrobenzene-d5	58.23	58.2	mg/L	1	80	72	72	35 - 114
2-Fluorobiphenyl	61.8	63.28	mg/L	1	80	77	79	43 - 116
2,4,6-Tribromophenol	66.11	68.2	mg/L	1	80	82	85	10 - 123
Terphenyl-d14	66.15	72.4	mg/L	1	80	82	90	33 - 141

Quality Control Report
Matrix Spikes and Duplicate Spikes

Matrix Spikes

QCBatch: QC17666

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
TCLP Mercury	0.0528	0.0523	mg/L	1	0.05	<0.010	105	0	83 - 125	20

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

Matrix Spikes

QCBatch: QC17703

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
TCLP Arsenic	5.12	5.13	mg/L	10	5	<1.00	102	0	75 - 125	20
TCLP Barium	9.65	9.65	mg/L	10	10	<1.00	96	0	75 - 125	20
TCLP Cadmium	2.22	2.22	mg/L	10	2.50	<0.050	88	0	75 - 125	20
TCLP Chromium	0.947	0.936	mg/L	10	1	<0.050	94	1	75 - 125	20
TCLP Lead	4.62	4.57	mg/L	10	5	<1.00	92	1	75 - 125	20
TCLP Selenium	4.36	4.36	mg/L	10	5	<1.00	87	0	75 - 125	20
TCLP Silver	1.17	1.18	mg/L	10	1.25	<0.500	93	0	75 - 125	20

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

Matrix Spikes QCBatch: QC17760

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Vinyl Chloride	4.79	4.89	mg/L	1	5	<0.05	95	2	38 - 127	20
1,1-Dichloroethene	5.60	5.88	mg/L	1	5	<0.05	112	4	63 - 165	20
Methyl ethyl ketone	4.78	4.68	mg/L	1	5	<0.50	95	2	38 - 158	20
Chloroform	5.40	5.42	mg/L	1	5	<0.05	108	0	74 - 133	20
1,2-Dichloroethane (EDC)	5.19	5.30	mg/L	1	5	<0.05	103	2	80 - 127	20
Benzene	4.82	4.95	mg/L	1	5	<0.05	96	2	80 - 125	20
Carbon Tetrachloride	5.49	5.73	mg/L	1	5	<0.05	109	4	68 - 142	20
Trichloroethene (TCE)	5.22	5.37	mg/L	1	5	<0.05	104	2	84 - 120	20
Tetrachloroethene (PCE)	3.69	3.70	mg/L	1	5	<0.05	73	0	53 - 132	20
Chlorobenzene	5.83	5.88	mg/L	1	5	<0.05	116	0	87 - 123	20
1,4-Dichlorobenzene	5.11	5.12	mg/L	1	5	<0.05	102	0	84 - 127	20

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

Surrogate	MS Result	MSD Result	Units	Dilution	Spike Amount	MS % Rec	MSD % Rec	Recovery Limits
Dibromofluoromethane	53.0	53.5	mg/L	1	50	106	107	87 - 117
Toluene-d8	50.0	50.5	mg/L	1	50	100	101	92 - 112
4-Bromofluorobenzene	47.5	47.5	mg/L	1	50	95	95	85 - 113

Matrix Spikes QCBatch: QC17961

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
Pyridine	7.04	5.31	mg/L	1	80	<0.05	8	28	0 - 92	20
1,4-Dichlorobenzene	33.44	25.51	mg/L	1	80	<0.05	41	26	20 - 124	20
o-Cresol	44.6	36.35	mg/L	1	80	<0.05	55	20	41 - 92	20
m,p-Cresol	85.63	70.26	mg/L	1	160	<0.05	53	19	7 - 127	20
Hexachloroethane	32.94	25.44	mg/L	1	80	<0.05	41	25	40 - 113	20
Nitrobenzene	32.5	26.35	mg/L	1	80	<0.05	40	20	35 - 186	20
Hexachlorobutadiene	31.96	26.11	mg/L	1	80	<0.05	39	20	24 - 116	20
2,4,6-Trichlorophenol	61.76	58.56	mg/L	1	80	<0.05	77	5	37 - 144	20
2,4,5-Trichlorophenol	63.68	60.13	mg/L	1	80	<0.05	79	5	49 - 185	20
2,4-Dinitrotoluene	36.81	28.48	mg/L	1	80	<0.05	46	25	39 - 139	20

Continued ...

... Continued

Param	MS Result	MSD Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec	RPD	% Rec Limit	RPD Limit
2,4-D	3.62	4.95	mg/L	1	80	<0.05	4	31	2 - 92	20
Hexachlorobenzene	35.15	30.62	mg/L	1	80	<0.05	43	13	0 - 152	20
2,4,5-TP	0.84	0.59	mg/L	1	80	<0.05	1	34	0 - 112	20
Pentachlorophenol	46.14	39.22	mg/L	1	80	<0.05	57	16	14 - 176	20

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

Surrogate	MS Result	MSD Result	Units	Dilution	Spike Amount	MS % Rec	MSD % Rec	Recovery Limits
2-Fluorophenol	30.03	35.2	mg/L	1	80	37	44	21 - 100
Phenol-d5	19.98	22.76	mg/L	1	80	24	28	10 - 94
Nitrobenzene-d5	32.03	32.92	mg/L	1	80	40	41	35 - 114
2-Fluorobiphenyl	34.31	36.36	mg/L	1	80	42	45	43 - 116
2,4,6-Tribromophenol	67.02	80.82	mg/L	1	80	83	101	10 - 123
Terphenyl-d14	29.04	43.89	mg/L	1	80	36	54	33 - 141

Quality Control Report
Continuing Calibration Verification Standards

CCV (1) QCBatch: QC17666

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury		mg/L	0.005	0.00504	100	80 - 120	1/28/02

ICV (1) QCBatch: QC17666

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury		mg/L	0.005	0.00504	100	80 - 120	1/28/02

CCV (1) QCBatch: QC17703

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Arsenic		mg/L	1	1.00	100	90 - 110	1/28/02
TCLP Barium		mg/L	2	1.97	98	90 - 110	1/28/02
TCLP Cadmium		mg/L	0.50	0.487	97	90 - 110	1/28/02
TCLP Chromium		mg/L	0.20	0.197	98	90 - 110	1/28/02
TCLP Lead		mg/L	1	0.986	99	90 - 110	1/28/02
TCLP Selenium		mg/L	1	0.994	99	90 - 110	1/28/02
TCLP Silver		mg/L	0.25	0.247	99	90 - 110	1/28/02

ICV (1) QCBatch: QC17703

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Arsenic		mg/L	1	1.01	101	90 - 110	1/28/02
TCLP Barium		mg/L	2	2.00	100	90 - 110	1/28/02
TCLP Cadmium		mg/L	0.50	0.495	99	90 - 110	1/28/02
TCLP Chromium		mg/L	0.20	0.198	99	90 - 110	1/28/02
TCLP Lead		mg/L	1	0.998	100	90 - 110	1/28/02
TCLP Selenium		mg/L	1	1.00	100	90 - 110	1/28/02
TCLP Silver		mg/L	0.25	0.249	100	90 - 110	1/28/02

CCV (1) QCBatch: QC17760

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		mg/L	100	99	99	80 - 120	1/30/02
1,1-Dichloroethene		mg/L	100	98	98	80 - 120	1/30/02
Methyl ethyl ketone		mg/L	100	102	102	80 - 120	1/30/02
Chloroform		mg/L	100	91	91	80 - 120	1/30/02
1,2-Dichloroethane (EDC)		mg/L	100	91	91	80 - 120	1/30/02
Benzene		mg/L	100	90	90	80 - 120	1/30/02
Carbon Tetrachloride		mg/L	100	102	102	80 - 120	1/30/02
Trichloroethene (TCE)		mg/L	100	111	111	80 - 120	1/30/02
Tetrachloroethene (PCE)		mg/L	100	87	87	80 - 120	1/30/02
Chlorobenzene		mg/L	100	112	112	80 - 120	1/30/02
1,4-Dichlorobenzene		mg/L	100	100	100	80 - 120	1/30/02
Dibromofluoromethane		mg/L	50	47.0	94	80 - 120	1/30/02
Toluene-d8		mg/L	50	49.5	99	80 - 120	1/30/02
4-Bromofluorobenzene		mg/L	50	47.0	94	80 - 120	1/30/02

CCV (1) QCBatch: QC17961

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Pyridine		mg/L	60	60.74	101	80 - 120	2/5/02
1,4-Dichlorobenzene		mg/L	60	60.58	100	80 - 120	2/5/02
o-Cresol		mg/L	60	63.46	105	80 - 120	2/5/02
m,p-Cresol		mg/L	60	63.45	105	80 - 120	2/5/02
Hexachloroethane		mg/L	60	56.94	94	80 - 120	2/5/02
Nitrobenzene		mg/L	60	58.34	97	80 - 120	2/5/02
Hexachlorobutadiene		mg/L	60	55.91	93	80 - 120	2/5/02
2,4,6-Trichlorophenol		mg/L	60	61.32	102	80 - 120	2/5/02
2,4,5-Trichlorophenol		mg/L	60	60.63	101	80 - 120	2/5/02
2,4-Dinitrotoluene		mg/L	60	60.06	100	80 - 120	2/5/02
2,4-D		mg/L	60	63.25	105	2 - 92	2/5/02
Hexachlorobenzene		mg/L	60	60.47	100	80 - 120	2/5/02
2,4,5-TP		mg/L	60	66.44	110	0 - 112	2/5/02
Pentachlorophenol		mg/L	60	68.39	113	80 - 120	2/5/02

Continued . . .

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
2-Fluorophenol		mg/L	60	62.6	104	80 - 120	2/5/02
Nitrobenzene-d5		mg/L	60	57.7	96	80 - 120	2/5/02
2-Fluorobiphenyl		mg/L	60	59.9	99	80 - 120	2/5/02
2,4,6-Tribromophenol		mg/L	60	61.21	102	80 - 120	2/5/02
Terphenyl-d14		mg/L	60	60.95	101	80 - 120	2/5/02

89284

Page____of____

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

TraceAnalysis, Inc.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #: A02012201

any Name: NAVAJO

Phone #:

ss: (Street, City, Zip) 5015. Main

Fax #:

ot Person: Charlie Pignato

e to: erent from above)

t #:

Project Name: TCLP Gasoil Hydro

t Location: Artesia

Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

B # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	PRESERVATIVE METHOD: HCl	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: H_2SO_4	PRESERVATIVE METHOD: NaOH	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	SAMPLING: DATE	SAMPLING: TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
284	Gas oil Hydro	1	1L		X							X	X	1/21/02	920						X	X	X	X													

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	1/21/02	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				01/22/02	0900

LAB USE ONLY
Intact: Y N
Headspace: Y N
Temp: 4°
Log-in Review:

REMARKS:

2/8P

☐ Check if Special Reporting Limits Are Needed

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

PAGE 17
JIM WILSON
5053923082
03/11/2004 14:31

TRANSACTION REPORT

MAR-11-2004 THU 02:41 PM

FOR:

RECEIVE

DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
MAR-11	02:34 PM	5053923082	6′12″	17	RECEIVE	OK		

RECEIVED

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

FEB 2 4 2004
OIL CONSERVATION DIVISION

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised June 10, 2003

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ ☐ Verbal Approval Received: Yes ☐ No ☐	4. Generator: Lea Refining Co. 5. Originating Site: Navajo Refining Co. Plant
2. Management Facility Destination: Artesia Aeration	6. Transporter: Jim Wilson Const. & Dat.
3. Address of Facility Operator: Box 310 Hobbs N.M. ~~Malaymar N.M.~~	8. State: N.M.
7. Location of Material (Street Address or ULSTR): Malaymar N.M.	

9. Circle One:

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

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Hydrocarbon Contaminated Soil

FEB 2004 RECEIVED Hobbs OCD

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

SIGNATURE Jim Wilson TITLE: Manager DATE: 2/13/04
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 505-392-9575

E-MAIL ADDRESS Jimwilson@LeaCo.Net.

(This space for State Use)

APPROVED BY: [illegible] TITLE: Envirc Engr DATE: 2.17.04

APPROVED BY: Martyn J. [illegible] TITLE: Environmental Geologist DATE: 3-11-04

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: Lea **Refining Company**

ADDRESS: 7406 S Main

GENERATING SITE: **Navajo Refining Company**

COUNTY: Lea

STATE: **NM**

TYPE OF WASTE: Hydrocarbon Contaminated soil

ESTIMATED VOLUME: **500 yards**

GENERATING PROCESS: Hydrocarbon contaminated soil excavated from the building of our new sour water stripper unit.

REMARKS: **Analytical is included**
NMOCD FACILITY: Artesia Aeration, L.L.C.

TRUCKING COMPANY: D and J Waste Services/Wilson Const.

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA,NM 88210

DATE: 2/11/04

FEB 2004
RECEIVED
Hobbs
OCD

e-Lab, Inc.

QUALITY • INTEGRITY • SERVICE

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5887

February 05, 2004

Charlie Plymale
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5241
Fax: (505) 746-5421

Re: SWS Lea

Work Order : **0401213**

Dear Charlie Plymale,

e-Lab, Inc. received 1 sample on 1/27/2004 9:35:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 25.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Patrina A. Dathorne

Lora Terrill
VP Lab Operations

FEB 2004
RECEIVED
Hobbs
OCD

e-Lab, Inc.

Date: *February 05, 2004*

CLIENT: Navajo Refining Company
Project: SWS Lea
Work Order: **0401213**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0401213-01	SWS	Soil		1/26/2004 16:50	1/27/2004 09:35	☐

e-Lab, Inc. **Date:** *February 05, 2004*

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea
Lab ID: 0401213-01

Client Sample ID: SWS
Collection Date: 1/26/2004 4:50:00 PM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **2/2/2004**	Analyst: **JCJ**
Mercury	ND	0.00200		mg/L	1	2/3/2004 4:29:54 PM
TCLP METALS, ICP			**SW1311/6020**		Prep Date: **1/29/2004**	Analyst: **ALR**
Arsenic	ND	0.0500		mg/L	10	1/30/2004 6:12:00 PM
Barium	0.666	0.0500		mg/L	10	1/30/2004 6:12:00 PM
Cadmium	ND	0.0500		mg/L	10	1/30/2004 6:12:00 PM
Chromium	ND	0.0500		mg/L	10	1/30/2004 6:12:00 PM
Lead	ND	0.0500		mg/L	10	1/30/2004 6:12:00 PM
Selenium	ND	0.0500		mg/L	10	1/30/2004 6:12:00 PM
Silver	ND	0.0500		mg/L	10	1/30/2004 6:12:00 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **1/29/2004**	Analyst: **HV**
2,4,5-Trichlorophenol	ND	10		µg/L	1	2/3/2004 5:50:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	2/3/2004 5:50:00 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	2/3/2004 5:50:00 PM
Cresols, Total	62	30		µg/L	1	2/3/2004 5:50:00 PM
Hexachlorobenzene	ND	10		µg/L	1	2/3/2004 5:50:00 PM
Hexachlorobutadiene	ND	10		µg/L	1	2/3/2004 5:50:00 PM
Hexachloroethane	ND	10		µg/L	1	2/3/2004 5:50:00 PM
Nitrobenzene	ND	10		µg/L	1	2/3/2004 5:50:00 PM
Pentachlorophenol	ND	10		µg/L	1	2/3/2004 5:50:00 PM
Pyridine	ND	10		µg/L	1	2/3/2004 5:50:00 PM
Surr: 2,4,6-Tribromophenol	109	45-146		%REC	1	2/3/2004 5:50:00 PM
Surr: 2-Fluorobiphenyl	71.2	55-120		%REC	1	2/3/2004 5:50:00 PM
Surr: 2-Fluorophenol	52.9	21-110		%REC	1	2/3/2004 5:50:00 PM
Surr: 4-Terphenyl-d14	84.3	42-153		%REC	1	2/3/2004 5:50:00 PM
Surr: Nitrobenzene-d5	75.2	51-117		%REC	1	2/3/2004 5:50:00 PM
Surr: Phenol-d6	39.9	10-110		%REC	1	2/3/2004 5:50:00 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **1/28/2004**	Analyst: **PC**
1,1-Dichloroethene	ND	100		µg/L	20	2/2/2004 7:50:00 PM
1,2-Dichloroethane	ND	100		µg/L	20	2/2/2004 7:50:00 PM
1,4-Dichlorobenzene	ND	100		µg/L	20	2/2/2004 7:50:00 PM
2-Butanone	ND	200		µg/L	20	2/2/2004 7:50:00 PM
Benzene	ND	100		µg/L	20	2/2/2004 7:50:00 PM
Carbon tetrachloride	ND	100		µg/L	20	2/2/2004 7:50:00 PM
Chlorobenzene	ND	100		µg/L	20	2/2/2004 7:50:00 PM
Chloroform	ND	100		µg/L	20	2/2/2004 7:50:00 PM
Tetrachloroethene	ND	100		µg/L	20	2/2/2004 7:50:00 PM
Trichloroethene	ND	100		µg/L	20	2/2/2004 7:50:00 PM
Vinyl chloride	ND	100		µg/L	20	2/2/2004 7:50:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc. **Date:** *February 05, 2004*

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea
Lab ID: 0401213-01

Client Sample ID: SWS
Collection Date: 1/26/2004 4:50:00 PM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Surr: 1,2-Dichloroethane-d4	84.8	70-130		%REC	20	2/2/2004 7:50:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	20	2/2/2004 7:50:00 PM
Surr: Dibromofluoromethane	90.4	70-130		%REC	20	2/2/2004 7:50:00 PM
Surr: Toluene-d8	93.1	70-130		%REC	20	2/2/2004 7:50:00 PM
CYANIDE, REACTIVE		**SW-846**				Analyst: **MAG**
Reactive Cyanide	ND	0.0300		mg/Kg	1	1/30/2004
SULFIDE, REACTIVE		**SW-846**				Analyst: **MAG**
Reactive Sulfide	ND	40.0		mg/Kg	1	1/30/2004
IGNITABILITY FOR SOLIDS		**SW846, CHPT. 7.1.2**				Analyst: **LMD**
Burns vigorously and persistently	No				1	1/29/2004
Ignites spontaneously	No				1	1/29/2004
Ignites through friction	No				1	1/29/2004
Ignites under std. temp and pressure	No				1	1/29/2004
Ignites with moisture	No				1	1/29/2004
PH IN SOLID		**SW9045B**				Analyst: **LMD**
pH	9.53	0.100		pH Units	1	1/28/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

Outsource to the Secure Source
LASON™

THE REPRODUCTION OF

THE

FOLLOWING

DOCUMENT (S)

CANNOT BE IMPROVED

DUE TO

THE CONDITION OF

THE ORIGINAL

04 01 286

e-Lab, Inc.

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Submit to:

e-Lab, Inc.
3332 120th Ave.

TEL: (616) 895-0470
FAX: (616) 895-6185

Holland, MI 49424-8262

Acct #

Jun 27, 2004

	Sample ID	Matrix	Collection Date	SW-846				
				Requested Tests				
1	040211.010 (SW5)	Soil	6/26/2004 15:30	2				

Comments: Please analyze for Gross Alpha and Beta using 9310 Sr., Sample is dry to coarse grain. Results are due 07/26/04

Relinquished by: [signature]
Relinquished by:

Date/Time: 6/28/04 Received by: [signature]
Received by:

Date/Time: 6/28/04

40-11-3 Mining

e-Lab, Inc

Sample Receipt Checklist

Client Name: [illegible]

Work Order Number: [illegible]

Date/Time received:

Received By: [illegible]

Checklist completed by: [illegible] Date: [illegible]

Reviewed By: [illegible] Date: [illegible]

Method: Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ✓	No	Not Present
Custody seals intact on shipping container/cooler?	Yes ✓	No	Not Present
Custody seals intact on sample bottles?	Yes	No	Not Present ✓
Chain of custody present?	Yes ✓	No	
Chain of custody signed when relinquished and received?	Yes ✓	No	
Chain of custody agrees with sample labels?	Yes ✓	No	
Samples in proper container/bottle?	Yes ✓	No	
Sample containers intact?	Yes ✓	No	
Sufficient sample volume for indicated test?	Yes ✓	No	
All samples received within holding time?	Yes ✓	No	
Containers requiring zero headspace have no headspace or bubble <6mm (1/4")?	Yes ✓	No	
Temperature of cooler(s)(°C)	[illegible]		
Water - VOA vials have zero headspace?	Yes	No	No VOA vials submitted ✓
Water - pH acceptable upon receipt?	Yes	No	N/A ✓

Adjusted? Checked by

Login Notes:

Any No and/or N/A (not applicable) response must be detailed in the comments section below.

Client contacted: Date contacted: Person contacted:

Contacted by: Regarding:

Comments:

Corrective Action:

e-Lab, Inc.

CUSTODY SEAL

FedEx.

To: e-Lab Sample Receiving (616)399-6070
e-Lab Michigan
3352 128th Ave.

Holland, MI, 49424

SHIP DATE: 26JAN04
WEIGHT: 30 LBS

TRK # 7905 3159 9146

FedEx PRIORITY OVERNIGHT

GRR

WED
AA
28JAN04

49424-MI-US

NH HLMA

e-Lab, Inc.

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

Date: *Feb 05 2004*

QC BATCH REPORT

Batch ID: **7872** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-012904** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **01/30/04 17:59**

Client ID: Run ID: **ICP4500_040130A** SeqNo: **423527** Prep Date: **1/29/2004** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: **MBLKT1-012804** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **01/30/04 18:08**

Client ID: Run ID: **ICP4500_040130A** SeqNo: **423529** Prep Date: **1/29/2004** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	0-0	0			
Barium	ND	0.050	0	0	0	0-0	0			
Cadmium	ND	0.050	0	0	0	0-0	0			
Chromium	0.01223	0.050	0	0	0	0-0	0			J
Lead	ND	0.050	0	0	0	0-0	0			
Selenium	ND	0.050	0	0	0	0-0	0			
Silver	ND	0.050	0	0	0	0-0	0			

LCS Sample ID: **MLCSW1-012904** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **01/30/04 18:03**

Client ID: Run ID: **ICP4500_040130A** SeqNo: **423528** Prep Date: **1/29/2004** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2126	0.050	0.2	0	106	80-120	0			
Barium	0.1984	0.050	0.2	0	99.2	80-120	0			
Cadmium	0.195	0.050	0.2	0	97.5	80-120	0			
Chromium	0.2073	0.050	0.2	0	104	80-120	0			
Lead	0.1935	0.050	0.2	0	96.8	80-120	0			
Selenium	0.1805	0.050	0.2	0	90.2	80-120	0			
Silver	0.2005	0.050	0.2	0	100	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **7872** InstrumentID: **ICP4500**

MS Sample ID: **0401215-01AMS** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **01/30/04 18:30**

Client ID: Run ID: **ICP4500_040130A** SeqNo: **423534** Prep Date: **1/29/2004** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.21	0.050	0.2	0.01436	97.8	75-125	0			
Barium	0.2104	0.050	0.2	0.01676	96.8	75-125	0			
Cadmium	0.1934	0.050	0.2	-0.00005518	96.7	75-125	0			
Chromium	0.2118	0.050	0.2	0.01436	98.7	75-125	0			
Lead	0.198	0.050	0.2	0.004418	96.8	75-125	0			
Selenium	0.1817	0.050	0.2	-0.008681	95.2	75-125	0			
Silver	0.1918	0.050	0.2	-0.0001956	96	75-125	0			

MSD Sample ID: **0401215-01AMSD** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **01/30/04 18:34**

Client ID: Run ID: **ICP4500_040130A** SeqNo: **423535** Prep Date: **1/29/2004** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2156	0.050	0.2	0.01436	101	75-125	0.21	2.63	25	
Barium	0.2028	0.050	0.2	0.01676	93	75-125	0.2104	3.68	25	
Cadmium	0.1807	0.050	0.2	-0.00005518	90.4	75-125	0.1934	6.79	25	
Chromium	0.207	0.050	0.2	0.01436	96.3	75-125	0.2118	2.29	25	
Lead	0.189	0.050	0.2	0.004418	92.3	75-125	0.198	4.65	25	
Selenium	0.2117	0.050	0.2	-0.008681	110	75-125	0.1817	15.3	25	
Silver	0.1836	0.050	0.2	-0.0001956	91.9	75-125	0.1918	4.37	25	

DUP Sample ID: **0401215-01ADUP** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **01/30/04 18:25**

Client ID: Run ID: **ICP4500_040130A** SeqNo: **423533** Prep Date: **1/29/2004** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050	0	0	0	0-0	0.01436	0	25	
Barium	0.01698	0.050	0	0	0	0-0	0.01676	0	25	J
Cadmium	ND	0.050	0	0	0	0-0	-0.00005518	0	25	
Chromium	0.0143	0.050	0	0	0	0-0	0.01436	0	25	J
Lead	0.004533	0.050	0	0	0	0-0	0.004418	0	25	J
Selenium	ND	0.050	0	0	0	0-0	-0.008681	0	25	
Silver	ND	0.050	0	0	0	0-0	-0.0001956	0	25	

The following samples were analyzed in this batch: 0401213-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **7895** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-020204** Test Code: **SW7470** Units: **mg/L** Analysis Date: **02/03/04 16:22**
Client ID: Run ID: **MERCURY_040203A** SeqNo: **424291** Prep Date: **2/2/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020								

MBLK Sample ID: **GBLKT1-013004** Test Code: **SW7470** Units: **mg/L** Analysis Date: **02/03/04 17:26**
Client ID: Run ID: **MERCURY_040203A** SeqNo: **424339** Prep Date: **2/2/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020								

LCS Sample ID: **GLCSW1-020204** Test Code: **SW7470** Units: **mg/L** Analysis Date: **02/03/04 16:24**
Client ID: Run ID: **MERCURY_040203A** SeqNo: **424292** Prep Date: **2/2/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00472	0.0020	0.005	0	94.4	80-120		0		

LCSD Sample ID: **GLCSDW1-020204** Test Code: **SW7470** Units: **mg/L** Analysis Date: **02/03/04 16:25**
Client ID: Run ID: **MERCURY_040203A** SeqNo: **424293** Prep Date: **2/2/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00468	0.0020	0.005	0	93.6	80-120	0.00472	0.851	25	

MS Sample ID: **0401213-01AMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **02/03/04 16:32**
Client ID: **SWS** Run ID: **MERCURY_040203A** SeqNo: **424296** Prep Date: **2/2/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00457	0.0020	0.005	-0.000095	93.3	75-125		0		

MSD Sample ID: **0401213-01AMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **02/03/04 16:38**
Client ID: **SWS** Run ID: **MERCURY_040203A** SeqNo: **424297** Prep Date: **2/2/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0052	0.0020	0.005	-0.000095	106	75-125	0.00457	12.9	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **7895** InstrumentID: **Mercury**

DUP Sample ID: **0401213-01ADUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **02/03/04 16:31**

Client ID: **SWS** Run ID: **MERCURY_040203A** SeqNo: **424295** Prep Date: **2/2/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020	0	0	0	0-0	-0.000095	0	20	

The following samples were analyzed in this batch: 0401213-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **7883** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKT1-040129** Test Code: **SW1311/8270** Units: **µg/L** Analysis Date: **01/30/04 20:27**

Client ID: Run ID: **SV-3_040130A** SeqNo: **424520** Prep Date: **1/29/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2,4-Dinitrotoluene	ND	10								
Cresols, Total	ND	30								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachloroethane	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	95.46	10	100	0	95.5	45-146	0			
Surr: 2-Fluorobiphenyl	87.96	10	100	0	88	55-120	0			
Surr: 2-Fluorophenol	36.61	10	100	0	36.6	21-110	0			
Surr: 4-Terphenyl-d14	88.2	10	100	0	88.2	42-153	0			
Surr: Nitrobenzene-d5	86.25	10	100	0	86.3	51-117	0			
Surr: Phenol-d6	24.05	10	100	0	24.1	10-110	0			

LCS Sample ID: **SLCST1-040129** Test Code: **SW1311/8270** Units: **µg/L** Analysis Date: **02/02/04 22:42**

Client ID: Run ID: **SV-3_040130A** SeqNo: **424521** Prep Date: **1/29/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	50.39	10	50	0	101	48-119	0			
2,4,6-Trichlorophenol	50.98	10	50	0	102	52-119	0			
2,4-Dinitrotoluene	48.22	10	50	0	96.4	46-114	0			
Cresols, Total	110.5	30	150	0	73.7	35-100	0			
Hexachlorobenzene	51.3	10	50	0	103	25-84	0			S
Hexachlorobutadiene	49.47	10	50	0	98.9	47-120	0			
Hexachloroethane	43.15	10	50	0	86.3	47-113	0			
Nitrobenzene	46.98	10	50	0	94	55-111	0			
Pentachlorophenol	58.06	10	50	0	116	36-120	0			
Pyridine	27.63	10	50	0	55.3	17-80	0			
Surr: 2,4,6-Tribromophenol	108.8	10	100	0	109	45-146	0			
Surr: 2-Fluorobiphenyl	85.24	10	100	0	85.2	55-120	0			
Surr: 2-Fluorophenol	45.71	10	100	0	45.7	21-110	0			
Surr: 4-Terphenyl-d14	87	10	100	0	87	42-153	0			
Surr: Nitrobenzene-d5	88.62	10	100	0	88.6	51-117	0			
Surr: Phenol-d6	28.7	10	100	0	28.7	10-110	0			

ND - Not Detected at the Reporting Limit
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in assoc. Method Blank
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
U - Analyzed for but not detected
O - Referenced analyte value is > 4 times amount spiked
P - Dual Column results percent difference > 40%
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **7883** InstrumentID: **SV-3**

LCSD Sample ID: **SLCSDT1-040129** Test Code: **SW1311/8270** Units: **µg/L** Analysis Date: **02/02/04 23:07**

Client ID: Run ID: **SV-3_040130A** SeqNo: **424522** Prep Date: **1/29/2004** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	51.22	10	50	0	102	48-119	50.39	1.63	25	
2,4,6-Trichlorophenol	51.57	10	50	0	103	52-119	50.98	1.15	25	
2,4-Dinitrotoluene	46.05	10	50	0	92.1	46-114	48.22	4.61	25	
Cresols, Total	107.4	30	150	0	71.6	35-100	110.5	2.89	25	
Hexachlorobenzene	52.53	10	50	0	105	25-84	51.3	2.37	25	S
Hexachlorobutadiene	54.02	10	50	0	108	47-120	49.47	8.79	25	
Hexachloroethane	45.63	10	50	0	91.3	47-113	43.15	5.58	25	
Nitrobenzene	48.72	10	50	0	97.4	55-111	46.98	3.63	25	
Pentachlorophenol	55.88	10	50	0	112	36-120	58.06	3.83	42	
Pyridine	25.86	10	50	0	51.7	17-80	27.63	6.62	25	
Surr: 2,4,6-Tribromophenol	105.3	10	100	0	105	45-146	108.8	3.3	25	
Surr: 2-Fluorobiphenyl	89.01	10	100	0	89	55-120	85.24	4.33	25	
Surr: 2-Fluorophenol	46.58	10	100	0	46.6	21-110	45.71	1.88	25	
Surr: 4-Terphenyl-d14	96.45	10	100	0	96.4	42-153	87	10.3	25	
Surr: Nitrobenzene-d5	90.14	10	100	0	90.1	51-117	88.62	1.7	25	
Surr: Phenol-d6	28.21	10	100	0	28.2	10-110	28.7	1.73	25	

The following samples were analyzed in this batch: 0401213-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **R18544** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKT1-0128** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **02/02/04 15:17**

Client ID: Run ID: **VOA_I_040202B** SeqNo: **424132** Prep Date: **1/28/2004** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	839.8	0	1000	0	84	70-130		0		
Surr: 4-Bromofluorobenzene	988.5	0	1000	0	98.8	70-130		0		
Surr: Dibromofluoromethane	914	0	1000	0	91.4	70-130		0		
Surr: Toluene-d8	933.9	0	1000	0	93.4	70-130		0		

MBLK Sample ID: **VBLKT2-0202** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **02/02/04 15:44**

Client ID: Run ID: **VOA_I_040202B** SeqNo: **424133** Prep Date: **1/30/2004** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbon tetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr: 1,2-Dichloroethane-d4	841.6	0	1000	0	84.2	70-130		0		
Surr: 4-Bromofluorobenzene	995.4	0	1000	0	99.5	70-130		0		
Surr: Dibromofluoromethane	893.7	0	1000	0	89.4	70-130		0		
Surr: Toluene-d8	933.9	0	1000	0	93.4	70-130		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **R18544** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-0202** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **02/02/04 16:11**

Client ID: Run ID: **VOA_I_040202B** SeqNo: **424134** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr: 1,2-Dichloroethane-d4	41.62	0	50	0	83.2	70-130		0		
Surr: 4-Bromofluorobenzene	49.08	0	50	0	98.2	70-130		0		
Surr: Dibromofluoromethane	44.93	0	50	0	89.9	70-130		0		
Surr: Toluene-d8	46.82	0	50	0	93.6	70-130		0		

LCS Sample ID: **VLCSW-0202** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **02/02/04 13:30**

Client ID: Run ID: **VOA_I_040202B** SeqNo: **424131** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	48.48	5.0	50	0	97	50.8-126		0		
1,2-Dichloroethane	47.04	5.0	50	0	94.1	70-130		0		
1,4-Dichlorobenzene	46.02	5.0	50	0	92	70-130		0		
2-Butanone	104.3	10	100	0	104	70-130		0		
Benzene	48.09	5.0	50	0	96.2	70.1-128		0		
Carbon tetrachloride	48.48	5.0	50	0	97	70-130		0		
Chlorobenzene	46.74	5.0	50	0	93.5	72.5-127		0		
Chloroform	47.52	5.0	50	0	95	70-130		0		
Tetrachloroethene	50.98	5.0	50	0	102	70-130		0		
Trichloroethene	48.02	5.0	50	0	96	72.5-129		0		
Vinyl chloride	48.39	5.0	50	0	96.8	70-130		0		
Surr: 1,2-Dichloroethane-d4	41.99	0	50	0	84	65.3-120		0		
Surr: 4-Bromofluorobenzene	50.18	0	50	0	100	74.9-115		0		
Surr: Dibromofluoromethane	45.11	0	50	0	90.2	70.5-119		0		
Surr: Toluene-d8	46.36	0	50	0	92.7	72.6-119		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **R18544** InstrumentID: **VOA_I**

MS Sample ID: **0401258-01AMS** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **02/02/04 18:02**

Client ID: Run ID: **VOA_I_040202B** SeqNo: **424135** Prep Date: **1/28/2004** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	990.9	100	1000	0	99.1	70-130	0			
1,2-Dichloroethane	920.9	100	1000	0	92.1	70-130	0			
1,4-Dichlorobenzene	927.4	100	1000	0	92.7	70-130	0			
2-Butanone	1956	200	2000	0	97.8	70-130	0			
Benzene	990.7	100	1000	54.01	93.7	70-130	0			
Carbon tetrachloride	930.1	100	1000	0	93	70-130	0			
Chlorobenzene	940.9	100	1000	0	94.1	70-130	0			
Chloroform	950.5	100	1000	0	95.1	70-130	0			
Tetrachloroethene	982.1	100	1000	27.78	95.4	70-130	0			
Trichloroethene	942.1	100	1000	0	94.2	70-130	0			
Vinyl chloride	979.3	100	1000	0	97.9	70-130	0			
Surr: 1,2-Dichloroethane-d4	833.1	0	1000	0	83.3	70-130	0			
Surr: 4-Bromofluorobenzene	994.4	0	1000	0	99.4	70-130	0			
Surr: Dibromofluoromethane	894.1	0	1000	0	89.4	70-130	0			
Surr: Toluene-d8	925.4	0	1000	0	92.5	70-130	0			

MSD Sample ID: **0401258-01AMSD** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **02/02/04 18:29**

Client ID: Run ID: **VOA_I_040202B** SeqNo: **424136** Prep Date: **1/28/2004** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	975.7	100	1000	0	97.6	70-130	990.9	1.55	20	
1,2-Dichloroethane	942.8	100	1000	0	94.3	70-130	920.9	2.34	0	
1,4-Dichlorobenzene	905	100	1000	0	90.5	70-130	927.4	2.44	0	
2-Butanone	1954	200	2000	0	97.7	70-130	1956	0.12	0	
Benzene	1026	100	1000	54.01	97.2	70-130	990.7	3.47	20	
Carbon tetrachloride	935.3	100	1000	0	93.5	70-130	930.1	0.564	0	
Chlorobenzene	939.8	100	1000	0	94	70-130	940.9	0.117	20	
Chloroform	969.1	100	1000	0	96.9	70-130	950.5	1.94	0	
Tetrachloroethene	974	100	1000	27.78	94.6	70-130	982.1	0.826	0	
Trichloroethene	959.8	100	1000	0	96	70-130	942.1	1.86	20	
Vinyl chloride	979.7	100	1000	0	98	70-130	979.3	0.0457	0	
Surr: 1,2-Dichloroethane-d4	841.9	0	1000	0	84.2	70-130	833.1	1.06	20	
Surr: 4-Bromofluorobenzene	1001	0	1000	0	100	70-130	994.4	0.65	20	
Surr: Dibromofluoromethane	902	0	1000	0	90.2	70-130	894.1	0.873	20	
Surr: Toluene-d8	920	0	1000	0	92	70-130	925.4	0.582	20	

The following samples were analyzed in this batch: 0401213-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **R18462** InstrumentID: **Wet Chemistry**

LCS Sample ID: **WLCSS1-012804** Test Code: **SW9045B** Units: **pH Units** Analysis Date: **01/28/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0401** SeqNo: **421895** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.01	0.10	6	0	100	85-115		0		

DUP Sample ID: **0401213-01A DUP** Test Code: **SW9045B** Units: **pH Units** Analysis Date: **01/28/04 0:00**

Client ID: **SWS** Run ID: **WET CHEMISTRY_0401** SeqNo: **421923** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	9.53	0.10	0	0	0	75-125	9.53	0	20	

The following samples were analyzed in this batch: 0401213-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0401213
Project: SWS Lea

QC BATCH REPORT

Batch ID: **R18492** InstrumentID: **Wet Chemistry**

DUP Sample ID: **0401236-09E DUP** Test Code: **SW846, Chpt.** Units: Analysis Date: **01/29/04 0:00**

Client ID: Run ID: **WET CHEMISTRY_0401** SeqNo: **422592** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Burns vigorously and persistently	ND	0	0	0	0	0-0	0	0	0	
Ignites spontaneously	ND	0	0	0	0	0-0	0	0	0	
Ignites through friction	ND	0	0	0	0	0-0	0	0	0	
Ignites under std. temp and pressur	ND	0	0	0	0	0-0	0	0	0	
Ignites with moisture	ND	0	0	0	0	0-0	0	0	0	

The following samples were analyzed in this batch: 0401213-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

E-LAB

W.O.# 040213

Page ____ of ____

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

~~TraceAnalysis, Inc.~~

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #

Company Name: (LEA) NAVAJO REFINING Co.

Phone #: 5057483311

Address: (Street, City, Zip)

Fax #: 505746-5421

Contact Person: Charlie Plymate

Invoice to: (If different from above)

Project #:

Project Name: SWS

Project Location: Lovington

Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
	SWS	1	1L		X							X	X	1/26/04	1350						X	X	X		X												

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	1/26/03	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				1/27/04	09:35 a.

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp °
Log-in Review
Carrier #

REMARKS:

☐ Check If Special Reporting Limits Are Needed

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

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 1/27/2004 9:35:00 AM

Work Order Number 0401213

Received by: RNG

Checklist completed by [signature] 1/27/04 (Signature / Date)

Reviewed by LT 1/29/04 (Initials / Date)

Matrix: S

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.2c	003	
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

W.O. # 040123.

NAVAJO REFINING COMPANY

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 26JAN2004
ACCOUNT # 113684186
ACTUAL WGT: 7.00 LBS

Part # 156148-434 NRIT 7/03

TO:

E-LAB
SAMPLE RECEIVING
10450 STANCLIFF ROAD STE 210
-
HOUSTON TX 77099

2815305656
BILL RECIPIENT

Delivery Address Barcode

FedEx PRIORITY OVERNIGHT

TUE

DELIVER BY:
27JAN2004

System # 2223500 26JAN2004
TRK# 7905 3021 8571 Form 0201

IAH A2

77099-TX-US A9 JGQA

OSUS v5.2.00 2223500 2844 04/02

e-Lab, Inc **Date:** *February 02, 2004*

CLIENT: e-Lab, Inc
Project: 0401213
Work Order: **0401286**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0401286-01	0401213-01B	Soil		1/26/2004 16:50	1/28/2004 12:35	☐

e-Lab, Inc

CLIENT: e-Lab, Inc
Work Order: 0401286
Project: 0401213

Date: *Feb 02 2004*

QC BATCH REPORT

Batch ID: **R19004** InstrumentID: **WETCHEM**

MBLK Sample ID: **WBLKW1-013004** Test Code: **EPA 7.3.3.2** Units: **mg/Kg** Analysis Date **01/30/04 0:00**

Client ID: Run ID: **WETCHEM_040130C** SeqNo: **275962** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	0.030								

LCS Sample ID: **WLCSRW1-01300** Test Code: **EPA 7.3.3.2** Units: **mg/Kg** Analysis Date **01/30/04 0:00**

Client ID: Run ID: **WETCHEM_040130C** SeqNo: **275963** Prep Date: DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	1.962	0.75	16.95	0	11.6	5-100	0			

The following samples were analyzed in this batch: 0401286-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: e-Lab, Inc
Work Order: 0401286
Project: 0401213

QC BATCH REPORT

Batch ID: **R19005** InstrumentID: **WETCHEM**

MBLK Sample ID: **MB-R19005** Test Code: **EPA 7.3.4.2** Units: **mg/Kg** Analysis Date **01/30/04 0:00**

Client ID: Run ID: **WETCHEM_040130D** SeqNo: **275966** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch: 0401286-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

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

State of New Mexico
Energy Minerals and Natural Resources

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

OCT 27 2003

Form C-138
Revised June 10, 2003

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☑ ☐ Verbal Approval Received: Yes ☐ No ☐	4. Generator NAVAJO REFINING CO.
	5. Originating Site Lovington Plant mjK ~~ARTESIA~~ PLANT
2. Management Facility Destination ARTESIA AERATION	6. Transporter D&J SERVICES JIM WILSON CONSTRUCTION
3. Address of Facility Operator P.O. BOX 310 HOBBS, NM 88240	8. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) MALJAMAR, NM	

9. Circle One:

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

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

HYDROCARBON CONTAMINATED SOIL. Expansion At Lovington Refinery mjK

OCT 2003 RECEIVED Hobbs OCD

Estimated Volume 10,000 yrds cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE Jim Wilson
Waste Management Facility Authorized Agent

TITLE: OWNER/MANAGER DATE: 10/22/03

TYPE OR PRINT NAME: JIM WILSON TELEPHONE NO. 505-392-9575

E-MAIL ADDRESS JIMWILSON@LEACO.NET

102703-1

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyn J. Kh. TITLE: Environmental Geologist DATE: 10-27-03

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Lea Refining Company**

COUNTY: **Lea**

STATE: **NM**

TYPE OF WASTE: Hydrocarbon Contaminated soil

ESTIMATED VOLUME: **1000 yards**

GENERATING PROCESS: Hydrocarbon contaminated soil excavated from the expansion of our lovington refinery...

REMARKS:

NMOCD FACILITY: Artesia Aeration, L.L.C.

TRUCKING COMPANY: D and J Waste Services / Jim Wilson Const.

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA,NM 88210

DATE: 10/22/03

QUALITY • INTEGRITY • SERVICE

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5

September 19, 2003

Charlie Plymale
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: TCLP Parameters

Work Order : **0309134**

Dear Charlie Plymale,

e-Lab, Inc. received 1 sample on 9/15/2003 12:30:00 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 27.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Lora Terrill

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *September 19, 2003*

CLIENT: Navajo Refining Company
Project: TCLP Parameters
Work Order: **0309134**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0309134-01	Lea Expansion	Soil		9/12/2003 10:30	9/15/2003 12:30	☐

e-Lab, Inc. **Date:** *September 19, 2003*

CLIENT: Navajo Refining Company
Project: TCLP Parameters
Work Order: 0309134

Case Narrative

Samples were received at 27.4 degrees C. All requested analyses were performed at Charlie's request.

e-Lab, Inc.

Date: *September 19, 2003*

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters
Lab ID: 0309134-01

Client Sample ID: Lea Expansion
Collection Date: 9/12/2003 10:30:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **9/17/2003**	Analyst: **JCJ**
Mercury	ND	0.00200		mg/L	1	9/18/2003 2:18:08 PM
TCLP METALS, ICP			**SW1311/6020**		Prep Date: **9/17/2003**	Analyst: **ALR**
Arsenic	ND	0.0500		mg/L	10	9/18/2003 11:10:00 PM
Barium	1.15	0.0500		mg/L	10	9/18/2003 11:10:00 PM
Cadmium	ND	0.0500		mg/L	10	9/18/2003 11:10:00 PM
Chromium	ND	0.0500		mg/L	10	9/18/2003 11:10:00 PM
Lead	ND	0.0500		mg/L	10	9/18/2003 11:10:00 PM
Selenium	ND	0.0500		mg/L	10	9/18/2003 11:10:00 PM
Silver	ND	0.0500		mg/L	10	9/18/2003 11:10:00 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **9/17/2003**	Analyst: **HV**
2,4,5-Trichlorophenol	ND	10		µg/L	1	9/18/2003 7:13:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	9/18/2003 7:13:00 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	9/18/2003 7:13:00 PM
Cresols, Total	ND	30		µg/L	1	9/18/2003 7:13:00 PM
Hexachlorobenzene	ND	10		µg/L	1	9/18/2003 7:13:00 PM
Hexachlorobutadiene	ND	10		µg/L	1	9/18/2003 7:13:00 PM
Hexachloroethane	ND	10		µg/L	1	9/18/2003 7:13:00 PM
Nitrobenzene	ND	10		µg/L	1	9/18/2003 7:13:00 PM
Pentachlorophenol	ND	10		µg/L	1	9/18/2003 7:13:00 PM
Pyridine	ND	10		µg/L	1	9/18/2003 7:13:00 PM
Surr: 2,4,6-Tribromophenol	91.4	45-146		%REC	1	9/18/2003 7:13:00 PM
Surr: 2-Fluorobiphenyl	81.1	55-120		%REC	1	9/18/2003 7:13:00 PM
Surr: 2-Fluorophenol	44.4	21-110		%REC	1	9/18/2003 7:13:00 PM
Surr: 4-Terphenyl-d14	95.1	42-153		%REC	1	9/18/2003 7:13:00 PM
Surr: Nitrobenzene-d5	83.8	51-117		%REC	1	9/18/2003 7:13:00 PM
Surr: Phenol-d6	29.5	10-110		%REC	1	9/18/2003 7:13:00 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **9/16/2003**	Analyst: **HLBW**
1,1-Dichloroethene	ND	100		µg/L	20	9/17/2003 3:51:00 PM
1,2-Dichloroethane	ND	100		µg/L	20	9/17/2003 3:51:00 PM
1,4-Dichlorobenzene	ND	100		µg/L	20	9/17/2003 3:51:00 PM
2-Butanone	ND	200		µg/L	20	9/17/2003 3:51:00 PM
Benzene	ND	100		µg/L	20	9/17/2003 3:51:00 PM
Carbon tetrachloride	ND	100		µg/L	20	9/17/2003 3:51:00 PM
Chlorobenzene	ND	100		µg/L	20	9/17/2003 3:51:00 PM
Chloroform	ND	100		µg/L	20	9/17/2003 3:51:00 PM
Tetrachloroethene	ND	100		µg/L	20	9/17/2003 3:51:00 PM
Trichloroethene	ND	100		µg/L	20	9/17/2003 3:51:00 PM
Vinyl chloride	ND	100		µg/L	20	9/17/2003 3:51:00 PM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *September 19, 2003*

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters
Lab ID: 0309134-01

Client Sample ID: Lea Expansion
Collection Date: 9/12/2003 10:30:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Surr: 1,2-Dichloroethane-d4	96.3	70-130		%REC	20	9/17/2003 3:51:00 PM
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	20	9/17/2003 3:51:00 PM
Surr: Dibromofluoromethane	100	70-130		%REC	20	9/17/2003 3:51:00 PM
Surr: Toluene-d8	95.2	70-130		%REC	20	9/17/2003 3:51:00 PM
CYANIDE, REACTIVE			**SW-846**			Analyst: **MAG**
Reactive Cyanide	ND	0.500		mg/Kg	1	9/18/2003
SULFIDE, REACTIVE			**SW-846**			Analyst: **MAG**
Reactive Sulfide	ND	40.0		mg/Kg	1	9/18/2003
IGNITABILITY FOR SOLIDS			**SW846, CHPT. 7.1.2**			Analyst: **LMD**
Burns vigorously and persistently	No				1	9/16/2003
Ignites spontaneously	No				1	9/16/2003
Ignites through friction	No				1	9/16/2003
Ignites under std. temp and pressure	No				1	9/16/2003
Ignites with moisture	No				1	9/16/2003
PH IN SOLID			**SW9045B**			Analyst: **LMD**
pH	10.1	0.100		pH Units	1	9/16/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

Date: *Sep 19 2003*

QC BATCH REPORT

Batch ID: **6659** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-091703** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **09/18/03 18:00**

Client ID: Run ID: **ICP4500_030918A** SeqNo: **369151** Prep Date: **9/17/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	0.007879	0.050								J
Cadmium	ND	0.050								
Chromium	ND	0.050								
Lead	0.002561	0.050								J
Selenium	0.02031	0.050								J
Silver	ND	0.050								

MBLK Sample ID: **MBLKT1-091603** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **09/18/03 18:08**

Client ID: Run ID: **ICP4500_030918A** SeqNo: **369153** Prep Date: **9/17/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	0.01705	0.050								J
Lead	0.002066	0.050								J
Selenium	ND	0.050								
Silver	ND	0.050								

LCS Sample ID: **MLCSW1-091703** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **09/18/03 18:04**

Client ID: Run ID: **ICP4500_030918A** SeqNo: **369152** Prep Date: **9/17/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2161	0.050	0.2	0	108	80-120	0			
Barium	0.1946	0.050	0.2	0	97.3	80-120	0			
Cadmium	0.1853	0.050	0.2	0	92.6	80-120	0			
Chromium	0.1912	0.050	0.2	0	95.6	80-120	0			
Lead	0.1867	0.050	0.2	0	93.4	80-120	0			
Selenium	0.2009	0.050	0.2	0	100	80-120	0			
Silver	0.1868	0.050	0.2	0	93.4	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **6659** InstrumentID: **ICP4500**

MS Sample ID: **0309103-01AMS** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **09/18/03 18:34**

Client ID: Run ID: **ICP4500_030918A** SeqNo: **369163** Prep Date: **9/17/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2161	0.050	0.2	0.01601	100	75-125	0			
Barium	0.7496	0.050	0.2	0.546	102	75-125	0			
Cadmium	0.1748	0.050	0.2	0.00124	86.8	75-125	0			
Chromium	0.2135	0.050	0.2	0.02247	95.5	75-125	0			
Lead	0.1911	0.050	0.2	0.005447	92.8	75-125	0			
Selenium	0.1723	0.050	0.2	-0.03398	103	75-125	0			
Silver	0.1753	0.050	0.2	0.000687	87.3	75-125	0			

MSD Sample ID: **0309103-01AMSD** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **09/18/03 18:39**

Client ID: Run ID: **ICP4500_030918A** SeqNo: **369164** Prep Date: **9/17/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.219	0.050	0.2	0.01601	101	75-125	0.2161	1.33	25	
Barium	0.7528	0.050	0.2	0.546	103	75-125	0.7496	0.426	25	
Cadmium	0.1749	0.050	0.2	0.00124	86.8	75-125	0.1748	0.0572	25	
Chromium	0.2088	0.050	0.2	0.02247	93.2	75-125	0.2135	2.23	25	
Lead	0.1956	0.050	0.2	0.005447	95.1	75-125	0.1911	2.33	25	
Selenium	0.1361	0.050	0.2	-0.03398	85	75-125	0.1723	23.5	25	
Silver	0.1767	0.050	0.2	0.000687	88	75-125	0.1753	0.795	25	

DUP Sample ID: **0309103-01ADUP** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **09/18/03 18:30**

Client ID: Run ID: **ICP4500_030918A** SeqNo: **369162** Prep Date: **9/17/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.02112	0.050	0	0	0	0-0	0.01601	0	25	J
Barium	0.5667	0.050	0	0	0	0-0	0.546	3.72	25	
Cadmium	ND	0.050	0	0	0	0-0	0.00124	0	25	
Chromium	0.02244	0.050	0	0	0	0-0	0.02247	0	25	J
Lead	0.004956	0.050	0	0	0	0-0	0.005447	0	25	J
Selenium	ND	0.050	0	0	0	0-0	-0.03398	0	25	
Silver	ND	0.050	0	0	0	0-0	0.000687	0	25	

Thefollowingsampleswereanalyzedinthisbatch: 0309134-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **6668** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-091703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 13:42**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368984** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020								

MBLK Sample ID: **GBLKT1-091703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 14:01**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368987** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020								

MBLK Sample ID: **GBLKF2-091703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 14:41**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **369010** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020								

LCS Sample ID: **GLCSW1-091703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 13:55**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368985** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.0049	0.0020	0.005	0	98	80-120		0		

LCS Sample ID: **GLCSDW1-091703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 13:59**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368986** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00495	0.0020	0.005	0	99	80-120		0	0	0

LCS Sample ID: **GLCST1-091703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 14:02**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368988** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00545	0.0020	0.005	0	109	80-120		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **6668** InstrumentID: **Mercury**

LCS Sample ID: **GLCSF2-091703** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 14:42**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **369011** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00506	0.0020	0.005	0	101	80-120		0		

MS Sample ID: **0309132-01AMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 14:15**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368993** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00559	0.0020	0.005	0.000013	112	75-125		0		

MSD Sample ID: **0309132-01AMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 14:16**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368994** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00556	0.0020	0.005	0.000013	111	75-125	0.00559	0.538	20	

DUP Sample ID: **0309132-01ADUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **09/18/03 14:07**
Client ID: Run ID: **MERCURY_030918A** SeqNo: **368990** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020	0	0	0	0-0	0.000013	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0309134-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **6664** InstrumentID: **SV-3**

MBLK Sample ID: **SBLKT1-030917** Test Code: **SW8270** Units: **µg/L** Analysis Date: **09/18/03 18:18**

Client ID: Run ID: **SV-3_030918A** SeqNo: **369593** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2,4-Dinitrotoluene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachloroethane	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	82.59	0	100	0	82.6	39-153		0		
Surr: 2-Fluorobiphenyl	80.14	0	100	0	80.1	40-147		0		
Surr: 2-Fluorophenol	60.97	0	100	0	61	21-100		0		
Surr:4-Terphenyl-d14	89.72	0	100	0	89.7	39-141		0		
Surr: Nitrobenzene-d5	82.34	0	100	0	82.3	37-140		0		
Surr: Phenol-d6	43.39	0	100	0	43.4	11-100		0		

LCS Sample ID: **SLCST1-030917** Test Code: **SW8270** Units: **µg/L** Analysis Date: **09/18/03 18:46**

Client ID: Run ID: **SV-3_030918A** SeqNo: **369594** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	82.23	10	100	0	82.2	72-118		0		
2,4,6-Trichlorophenol	77.33	10	100	0	77.3	72-117		0		
2,4-Dinitrotoluene	41.14	10	50	0	82.3	72-119		0		
Hexachlorobenzene	40.14	10	50	0	80.3	71-118		0		
Hexachlorobutadiene	33.69	10	50	0	67.4	40-115		0		
Hexachloroethane	37.25	10	50	0	74.5	46-115		0		
Nitrobenzene	40.88	10	50	0	81.8	65-115		0		
Pentachlorophenol	87.86	10	100	0	87.9	65-123		0		
Surr: 2,4,6-Tribromophenol	82.29	0	100	0	82.3	39-153		0		
Surr: 2-Fluorobiphenyl	76.05	0	100	0	76	40-147		0		
Surr: 2-Fluorophenol	65.12	0	100	0	65.1	21-100		0		
Surr:4-Terphenyl-d14	88.93	0	100	0	88.9	39-141		0		
Surr: Nitrobenzene-d5	79.99	0	100	0	80	37-140		0		
Surr: Phenol-d6	48.87	0	100	0	48.9	11-100		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **6664** InstrumentID: **SV-3**

MS Sample ID: **0309103-01AMS** Test Code: **SW8270** Units: **µg/L** Analysis Date: **09/18/03 20:08**

Client ID: Run ID: **SV-3_030918A** SeqNo: **369596** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	88.45	10	100	0	88.5	45-135	0			
2,4,6-Trichlorophenol	83.06	10	100	0	83.1	45-135	0			
2,4-Dinitrotoluene	41.61	10	50	0	83.2	24-96	0			
Hexachlorobenzene	40.79	10	50	0	81.6	45-135	0			
Hexachlorobutadiene	38.15	10	50	0	76.3	45-135	0			
Hexachloroethane	45.85	10	50	0	91.7	45-135	0			
Nitrobenzene	42.76	10	50	0	85.5	45-135	0			
Pentachlorophenol	90.52	10	100	0	90.5	15-103	0			
Surr: 2,4,6-Tribromophenol	86.75	0	100	0	86.8	39-153	0			
Surr: 2-Fluorobiphenyl	82.05	0	100	0	82	40-147	0			
Surr: 2-Fluorophenol	48.21	0	100	0	48.2	21-100	0			
Surr:4-Terphenyl-d14	89.83	0	100	0	89.8	39-141	0			
Surr: Nitrobenzene-d5	85.02	0	100	0	85	37-140	0			
Surr: Phenol-d6	31.32	0	100	0	31.3	11-100	0			

MSD Sample ID: **0309103-01AMSD** Test Code: **SW8270** Units: **µg/L** Analysis Date: **09/18/03 20:36**

Client ID: Run ID: **SV-3_030918A** SeqNo: **369597** Prep Date: **9/17/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	87.05	10	100	0	87.1	45-135	88.45	1.6	30	
2,4,6-Trichlorophenol	83.96	10	100	0	84	45-135	83.06	1.09	30	
2,4-Dinitrotoluene	42.65	10	50	0	85.3	24-96	41.61	2.47	30	
Hexachlorobenzene	42.42	10	50	0	84.8	45-135	40.79	3.93	30	
Hexachlorobutadiene	38.73	10	50	0	77.5	45-135	38.15	1.52	30	
Hexachloroethane	45.62	10	50	0	91.2	45-135	45.85	0.502	30	
Nitrobenzene	44.14	10	50	0	88.3	45-135	42.76	3.17	30	
Pentachlorophenol	91.97	10	100	0	92	15-103	90.52	1.58	30	
Surr: 2,4,6-Tribromophenol	89.93	0	100	0	89.9	39-153	86.75	3.6	30	
Surr: 2-Fluorobiphenyl	81.63	0	100	0	81.6	40-147	82.05	0.506	30	
Surr: 2-Fluorophenol	47.49	0	100	0	47.5	21-100	48.21	1.5	30	
Surr:4-Terphenyl-d14	93.7	0	100	0	93.7	39-141	89.83	4.22	30	
Surr: Nitrobenzene-d5	85.1	0	100	0	85.1	37-140	85.02	0.1	30	
Surr: Phenol-d6	30.57	0	100	0	30.6	11-100	31.32	2.43	30	

Thefollowingsampleswereanalyzedinthisbatch: 0309134-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **R16184** InstrumentID: **VOA3**

MBLK Sample ID: **VBLKW-0917** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **09/17/03 14:52**

Client ID: Run ID: **VOA3_030917B** SeqNo: **368569** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr:1,2-Dichloroethane-d4	47.12	0	50	0	94.2	70-130		0		
Surr:4-Bromofluorobenzene	46.05	0	50	0	92.1	70-130		0		
Surr:Dibromofluoromethane	49.63	0	50	0	99.3	70-130		0		
Surr:Toluene-d8	49.23	0	50	0	98.5	70-130		0		

LCS Sample ID: **VLCSW-0917** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **09/17/03 13:22**

Client ID: Run ID: **VOA3_030917B** SeqNo: **368567** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	54	5.0	50	0	108	50.8-126		0		
1,2-Dichloroethane	55.78	5.0	50	0	112	70-130		0		
1,4-Dichlorobenzene	52.61	5.0	50	0	105	70-130		0		
2-Butanone	94.73	10	100	0	94.7	70-130		0		
Benzene	52.04	5.0	50	0	104	70.1-128		0		
Carbontetrachloride	57.2	5.0	50	0	114	70-130		0		
Chlorobenzene	52.57	5.0	50	0	105	72.5-127		0		
Chloroform	51.48	5.0	50	0	103	70-130		0		
Tetrachloroethene	45.82	5.0	50	0	91.6	70-130		0		
Trichloroethene	54.9	5.0	50	0	110	72.5-129		0		
Vinyl chloride	48.91	5.0	50	0	97.8	70-130		0		
Surr:1,2-Dichloroethane-d4	45.8	0	50	0	91.6	65.3-120		0		
Surr:4-Bromofluorobenzene	47.97	0	50	0	95.9	74.9-115		0		
Surr:Dibromofluoromethane	48.14	0	50	0	96.3	70.5-119		0		
Surr:Toluene-d8	47.57	0	50	0	95.1	72.6-119		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **R16184** InstrumentID: **VOA3**

LCSD Sample ID: **VLCSWD-0917** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **09/17/03 13:52**

Client ID: Run ID: **VOA3_030917B** SeqNo: **368568** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.54	5.0	50	0	111	50.8-126	54	2.81	20	
1,2-Dichloroethane	55.1	5.0	50	0	110	70-130	55.78	1.22	20	
1,4-Dichlorobenzene	52.29	5.0	50	0	105	70-130	52.61	0.618	20	
2-Butanone	101.2	10	100	0	101	70-130	94.73	6.62	20	
Benzene	52.06	5.0	50	0	104	70.1-128	52.04	0.0364	20	
Carbontetrachloride	56.16	5.0	50	0	112	70-130	57.2	1.83	20	
Chlorobenzene	52.9	5.0	50	0	106	72.5-127	52.57	0.621	20	
Chloroform	51.48	5.0	50	0	103	70-130	51.48	0.00658	20	
Tetrachloroethene	50.78	5.0	50	0	102	70-130	45.82	10.3	20	
Trichloroethene	54.4	5.0	50	0	109	72.5-129	54.9	0.916	20	
Vinyl chloride	50.61	5.0	50	0	101	70-130	48.91	3.42	20	
Surr:1,2-Dichloroethane-d4	46.27	0	50	0	92.5	65.3-120	45.8	1.02	20	
Surr:4-Bromofluorobenzene	47.9	0	50	0	95.8	74.9-115	47.97	0.127	20	
Surr:Dibromofluoromethane	48.67	0	50	0	97.3	70.5-119	48.14	1.09	20	
Surr: Toluene-d8	48.09	0	50	0	96.2	72.6-119	47.57	1.08	20	

MS Sample ID: **0309082-02AMS** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **09/17/03 16:51**

Client ID: Run ID: **VOA3_030917B** SeqNo: **368573** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.9	5.0	50	0	114	70-130	0			
1,2-Dichloroethane	58.3	5.0	50	0	117	70-130	0			
1,4-Dichlorobenzene	52.89	5.0	50	0	106	70-130	0			
2-Butanone	91.82	10	100	0	91.8	70-130	0			
Benzene	53.42	5.0	50	0	107	70-130	0			
Carbontetrachloride	62.61	5.0	50	0	125	70-130	0			
Chlorobenzene	54.28	5.0	50	0	109	70-130	0			
Chloroform	52.31	5.0	50	0	105	70-130	0			
Tetrachloroethene	43.38	5.0	50	0	86.8	70-130	0			
Trichloroethene	57.58	5.0	50	0	115	70-130	0			
Vinyl chloride	49.95	5.0	50	0	99.9	70-130	0			
Surr:1,2-Dichloroethane-d4	46.46	0	50	0	92.9	70-130	0			
Surr:4-Bromofluorobenzene	48.8	0	50	0	97.6	70-130	0			
Surr:Dibromofluoromethane	47.63	0	50	0	95.3	70-130	0			
Surr: Toluene-d8	48.15	0	50	0	96.3	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **R16184** InstrumentID: **VOA3**

MSD Sample ID: **0309082-02AMSD** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **09/17/03 17:21**

Client ID: Run ID: **VOA3_030917B** SeqNo: **368762** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.5	5.0	50	0	113	70-130	56.9	0.711	20	
1,2-Dichloroethane	56.27	5.0	50	0	113	70-130	58.3	3.54	0	
1,4-Dichlorobenzene	51.7	5.0	50	0	103	70-130	52.89	2.27	0	
2-Butanone	95.96	10	100	0	96	70-130	91.82	4.41	0	
Benzene	54.22	5.0	50	0	108	70-130	53.42	1.49	20	
Carbontetrachloride	60.38	5.0	50	0	121	70-130	62.61	3.63	0	
Chlorobenzene	52.94	5.0	50	0	106	70-130	54.28	2.5	20	
Chloroform	51.37	5.0	50	0	103	70-130	52.31	1.81	0	
Tetrachloroethene	43.35	5.0	50	0	86.7	70-130	43.38	0.0774	0	
Trichloroethene	55.42	5.0	50	0	111	70-130	57.58	3.82	20	
Vinyl chloride	53.99	5.0	50	0	108	70-130	49.95	7.77	0	
Surr:1,2-Dichloroethane-d4	44.77	0	50	0	89.5	70-130	46.46	3.7	20	
Surr:4-Bromofluorobenzene	47.72	0	50	0	95.4	70-130	48.8	2.25	20	
Surr:Dibromofluoromethane	48	0	50	0	96	70-130	47.63	0.774	20	
Surr: Toluene-d8	47.93	0	50	0	95.9	70-130	48.15	0.448	20	

Thefollowingsampleswereanalyzedinthisbatch: 0309134-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **R16156** InstrumentID: **WetChemistry**

DUP Sample ID: **0309100-05C DUP** Test Code: **SW846, Chpt.** Units: Analysis Date: **09/16/03 0:00**

Client ID: Run ID: **WET CHEMISTRY_0309** SeqNo: **368037** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Burns vigorously and persistently	ND	0	0	0	0	0-0	0	0	0	
Ignites spontaneously	ND	0	0	0	0	0-0	0	0	0	
Ignites through friction	ND	0	0	0	0	0-0	0	0	0	
Ignites under std. temp and pressur	ND	0	0	0	0	0-0	0	0	0	
Ignites with moisture	ND	0	0	0	0	0-0	0	0	0	

Thefollowingsampleswereanalyzedinthisbatch: 0309134-01B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309134
Project: TCLP Parameters

QC BATCH REPORT

Batch ID: **R16163** InstrumentID: **WetChemistry**

LCS Sample ID: **WLCSS1-091603** Test Code: **SW9045B** Units: **pH Units** Analysis Date: **09/16/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0309** SeqNo: **368176** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6	0.10	6	0	100	85-115		0		

DUP Sample ID: **0309134-01B DUP** Test Code: **SW9045B** Units: **pH Units** Analysis Date: **09/16/03 0:00**
Client ID: **Lea Expansion** Run ID: **WET CHEMISTRY_0309** SeqNo: **368178** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	10.09	0.10	0	0	0	75-125	10.07	0.198	20	

Thefollowingsampleswereanalyzedinthisbatch: 0309134-01B

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

e-Lab
QUALITY • INTEGRITY • SERVICE

☐ e-Lab, Inc.
10450 Stancliff Rd. #210
Houston, Texas 77099
(Tel) 281.530.5656
(Fax) 281.530.5887

Chain of Custody Form

Page ____ of ____

☐ e-Lab, Inc.
3352 128th Avenue
Holland, Michigan 49424
(Tel) 616.399.6070
(Fax) 616.399.6185

e-Lab Project Manager: | e-Lab Work Order #: 0309134

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	Lea Expansion	A	TCLP Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
Work Order		Project Number		B	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
Company Name	NAVAJO	Bill To Company		C	TCLP Volatiles
Send Report To	Charlie Plymale	Invoice Attn.	Charlie Plymale	D	TCLP Semivolatiles
Address		Address		E	RCI
				F	pH
City/State/Zip	501 E. Main	City/State/Zip		G	
Phone	505 748 3311	Phone		H	
Fax	505 746 5421	Fax		I	
e-Mail Address				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Lea Expansion	9/12/03	1030			2	X	X	X	X	X	X					
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: Charlie Plymale

Shipment Method: FedEx

Required Turnaround Time: ☐ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☒ Other ASAP

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
	9/12/03	1615	
Relinquished by:	Date:	Time:	Received by (Laboratory): 9/15/03 12:30pm
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: Combine the 2 Samples

Cooler Temp.

QC Package: (Check Box Below)
- Level II: Standard QC
- Level III: Standard QC + Raw Data
- Level IV: SW846 Methods/CLP
- Other: _____

Note: Any changes must be made in writing once samples and COC Form have been submitted to e-Lab, Inc.

Copyright 2001 by e-Lab, Inc.

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 9/15/2003 12:30:00 PM

Work Order Number 0309134

Received by: RNG

Checklist completed by [signature] Signature 9/15/03 Date

Reviewed by [initials] Initials 9/15/03 Date

Matrix:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☐	No ☑	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	27.3c	003	
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑

Adjusted? _____ Checked by _____

Login Notes: Kit was received out of temp. O.K. to run per client.

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted Navajo Date contacted: 9/15/03 Person contacted Charlie

Contacted by: Spangler Regarding: Analyzing out of temp.

Comments: OK to perform analysis even though samples arrived at 27.4c per Charlie.

Corrective Action

W.O.# 030934.

NAVAJO REFINING COMPANY

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 12SE
ACCOUNT # 1136
ACTUAL WGT: 7.00

TO:

E-LAB
SAMPLE RECIEVING
10450 STANCLIFF ROAD STE 210
-
HOUSTON TX 77099

2815305656
BILL RECIPIE

Delivery Address Barcode

FedEx STANDARD OVERNIGHT

MO

DELIVE
15SEP

System # 2223500 12SEP2003
TRK# 7904 0835 6798 Form 0201

IAH

77099-TX-US B6 JG

OSUS v5.2.

e-Lab, Inc **Date:** *September 18, 2003*

CLIENT: e-Lab, Inc
Project: 0309134
Work Order: **0309255**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0309255-01	0309134-01C	Soil		9/12/2003 10:30	9/17/2003 14:25	☐

e-Lab, Inc

Date: *September 18, 2003*

CLIENT: e-Lab, Inc
Project: 0309134

Work Order: 0309255

Lab ID: 0309255-01A
Client Sample ID: 0309134-01C

Collection Date: 9/12/2003 10:30:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			**EPA 7.3.3.2**			Analyst: **KAE**
Cyanide, Reactive	ND	0.50		mg/Kg	1	9/18/2003
SULFIDE, REACTIVE			**EPA 7.3.4.2**			Analyst: **AH**
Sulfide, Reactive	ND	40		mg/Kg	1	9/18/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc

CLIENT: e-Lab, Inc
Work Order: 0309255
Project: 0309134

Date: *Sep 18 2003*

QC BATCH REPORT

Batch ID: **R16502** InstrumentID: **WETCHEM**

MBLK Sample ID: **WBLKW1-091803** Test Code: **EPA 7.3.3.2** Units: **mg/Kg** Analysis Date **09/18/03 0:00**

Client ID: Run ID: **WETCHEM_030918D** SeqNo: **238221** Prep Date:

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	0.50								

LCS Sample ID: **WLCSR1-091803** Test Code: **EPA 7.3.3.2** Units: **mg/Kg** Analysis Date **09/18/03 0:00**

Client ID: Run ID: **WETCHEM_030918D** SeqNo: **238222** Prep Date:

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	4.714	0.50	19.2	0	24.6	5-100		0		

The following samples were analyzed in this batch: 0309255-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: e-Lab, Inc
Work Order: 0309255
Project: 0309134

QC BATCH REPORT

Batch ID: **R16506** InstrumentID: **WETCHEM**

MBLK Sample ID: **WBLKW1-091803** Test Code: **EPA 7.3.4.2** Units: **mg/Kg** Analysis Date **09/18/03 0:00**

Client ID: Run ID: **WETCHEM_030918G** SeqNo: **238254** Prep Date:

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch: 0309255-01A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

Elab MI # 0309255

e-Lab, Inc.
10450 Stancliff Rd, Suite 210
Houston, Texas 77099-4338
(281) 530-5656

CHAIN-OF-CUSTODY RECORD

Subcontractor:

e-Lab, Inc.
3352 128th Ave.

Holland, MI 494249263

TEL: (616) 399-6070
FAX: (616) 399-6185

Acct #:

Sep 15, 2003

Sample ID	Matrix	Collection Date	Requested Tests					
			SW-846					
0309134-01C (Lea Expansion)	Soil	9/12/2003 10:30	2					

Comments: Please analyze for Reactive Sulfide and Reactive Cyanide. Send results to Lora Terrill. Results are due 09/18/03.

		Date/Time			Date/Time
Relinquished by:	[signature]	9/15/03 17:00	**Received by:**	FedEx	
Relinquished by:	FedEx		**Received by:**	[signature]	9/17/03 1425

WC

e-Lab, Inc

Sample Receipt Checklist

Client Name ELAB-HOU

Date/Time Received: 9/17/2003 2:25:00 PM

Work Order Number 0309255

Received by: KRW

Checklist completed b Signature 9/17/03 Date

Reviewed by Initials 9/17/03 Date

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes ✓	No	Not Present
Custody seals intact on shipping container/cooler?	Yes ✓	No	Not Present
Custody seals intact on sample bottles?	Yes	No	Not Present ✓
Chain of custody present?	Yes ✓	No	
Chain of custody signed when relinquished and received?	Yes ✓	No	
Chain of custody agrees with sample labels?	Yes ✓	No	
Samples in proper container/bottle?	Yes ✓	No	
Sample containers intact?	Yes ✓	No	
Sufficient sample volume for indicated test?	Yes ✓	No	
All samples received within holding time?	Yes ✓	No	
Container/Temp Blank temperature in compliance?	Yes ✓	No	
Temperature(s)/Thermometer(s):	2.4 C		
Water - VOA vials have zero headspace?	Yes	No	No VOA vials submitted ✓
Water - pH acceptable upon receipt?	Yes	No	N/A ✓

Adjusted? Checked b

Login Notes: Soil sample was shipped overnight on ice.

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted Date contacted: Person contacted

Contacted by: Regarding

Comments.

Corrective Action

e-Lab, Inc.
10450 Stancliff Rd. Suite 210
Houston, Texas 77099
Tel. 281.530.5656
Fax. 281.530.5887

QUALITY • INTEGRITY • SERVICE

CUSTODY SEAL

Date: 5-6-03 Time: 1100
Name: RICARDO SANCHEZ
Company: e-LAB, LLC

Seal Broken By:

Date:

1

From: Jose Cerda (281)530-5858
E-LAB, INC
10450 STANCLIFF RD. #210

HOUSTON, TX, 77099

REVENUE BARCODE

FedEx

To: e-Lab Sample Receiving (616)399-6070
e-Lab Michigan
3352 128th Ave.

Holland, MI, 49424

SHIP DATE: 15SEP03
WEIGHT: 20 LBS

Ref: 5320AD - Subcontract

DELIVERY ADDRESS BARCODE(FEDEX-USA)

TRK # 7916 7344 7060 [illegible]

FedEx STANDARD OVERNIGHT

TUE
AA
Deliver by:
16SEP03

GRR

49424-MI-US

NH HLMA

INVOICE

DATE: *September 19, 2003*

e-Lab
QUALITY • INTEGRITY • SERVICE

Original

Remit To:	e-Lab, Inc. PO Box 3014 Houston, Texas 77253
Attn:	Accounts Receivable
TEL:	(281) 530-5656
FAX:	(281) 530-5887

Invoice No:	**0309134**
Invoice Date:	Sep 19 2003
Payment Due:	Oct 19 2003
Payment Terms:	Net 30 days

Invoice To: Navajo Refining Company
P.O. Box 159

Artesia, New Mexico 88211

Attn:
Phone: (505) 748-3311

Work Order: 0309134
PO Number: N/A
Delivery Order:
Project Name: TCLP Parameters
Date Received: 9/15/2003

Item	Remarks	Matrix	Qty	Unit Price	Mult	Quoted	Test Total
Cyanide, Reactive	RCI Profile	Solid	1	$110.00	1	$110.00	$110.00
TCLP Metals, ICP	RCRA 8	Leachate	1	$105.00	1	$105.00	$105.00
TCLP Semivolatiles	RCRA List	Leachate	1	$225.00	1	$225.00	$225.00
TCLP Volatiles	RCRA List	Leachate	1	$170.00	1	$170.00	$170.00

Discount:	0.00%
Surcharge:	60.00%
Misc Charges:	$0.00

Misc Comments Surcharge is for 4 daya turn on the samples

INVOICE TOTAL: $976.00

Invoice is due and payable within the above referenced terms from date of receipt. A finance charge of 1.5% will be added to past due accounts over 15days.

Thank you for choosing e-Lab, Inc.

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

State of New Mexico
Energy Minerals and Natural Resources

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

OCT 27 2003

Form C-138
Revised June 10, 2003

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ Martyne Kieling 10-22-03 9:00am	4. Generator NAVAJO REFINING CO.
	5. Originating Site ARTESIA PLANT
2. Management Facility Destination ARTESIA AERATION	6. Transporter D&J SERVICES JIM WILSON CONSTRUCTION CO.
3. Address of Facility Operator P.O. BOX 310 HOBBS, NM 88240	8. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) MALJAMAR, NM	

9. Circle One:

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

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:
HYDROCARBON CONTAMINATED SOIL. New API Seperator Area at Artesia Plant. MJK

OCT 2003 RECEIVED Hobbs OCD

Estimated Volume 10,000 yrds cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE _____ TITLE: OWNER/MANAGER DATE: 10/22/03
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: JIM WILSON TELEPHONE NO. 505-392-9575

E-MAIL ADDRESS JIMWILSON@LEACO.NET

102203-2

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: _____ TITLE: Environmental Geologist DATE: 10-27-03

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: Hydrocarbon Contaminated soil

ESTIMATED VOLUME: **10000 yards**

GENERATING PROCESS: Hydrocarbon contaminated soil excavated from the building of our New API separater..

REMARKS:

NMOCD FACILITY: Artesia Aeration, L.L.C.

TRUCKING COMPANY: D and J Waste Services

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA,NM 88210

DATE: 10/22/03

New API #1 Results Only

QUALITY • INTEGRITY • SERVICE

e-Lab, Inc.

10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 281-530-5656 Fax 281-530-5

October 13, 2003

Charlie Plymale
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211

Tel: (505) 746-5468
Fax: (505) 746-5421

Re: Artesia TCLP

Work Order : **0309259**

Dear Charlie Plymale,

e-Lab, Inc. received 2 samples on 9/26/2003 9:20:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by e-Lab, Inc. and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by e-Lab Inc. The total number of pages in this report is 30.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Lora Terrill

Electronically approved by: Lora Terrill

Lora Terrill
VP Lab Operations

e-Lab, Inc.

Date: *October 13, 2003*

CLIENT: Navajo Refining Company
Project: Artesia TCLP
Work Order: **0309259**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0309259-01	Chloride Guard	Soil		9/25/2003 10:00	9/26/2003 09:20	☐
0309259-02	NWAPI #1	Soil		9/25/2003 10:00	9/26/2003 09:20	☐

e-Lab, Inc.

Date: *October 13, 2003*

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP
Lab ID: 0309259-01

Client Sample ID: Chloride Guard
Collection Date: 9/25/2003 10:00:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **10/2/2003**	Analyst: **JCJ**
Mercury	ND	0.00200		mg/L	1	10/2/2003 6:40:47 PM
TCLP METALS, ICP			**SW1311/6020**		Prep Date: **10/1/2003**	Analyst: **ALR**
Arsenic	ND	0.0500		mg/L	10	10/12/2003 9:06:00 PM
Barium	0.272	0.0500		mg/L	10	10/12/2003 9:06:00 PM
Cadmium	ND	0.0500		mg/L	10	10/12/2003 9:06:00 PM
Chromium	ND	0.0500		mg/L	10	10/13/2003 1:16:00 PM
Lead	ND	0.0500		mg/L	10	10/12/2003 9:06:00 PM
Selenium	ND	0.0500		mg/L	10	10/12/2003 9:06:00 PM
Silver	ND	0.0500		mg/L	10	10/12/2003 9:06:00 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **10/2/2003**	Analyst: **RKG**
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/2/2003 7:51:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/2/2003 7:51:00 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/2/2003 7:51:00 PM
Cresols, Total	ND	30		µg/L	1	10/2/2003 7:51:00 PM
Hexachlorobenzene	ND	10		µg/L	1	10/2/2003 7:51:00 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/2/2003 7:51:00 PM
Hexachloroethane	ND	10		µg/L	1	10/2/2003 7:51:00 PM
Nitrobenzene	ND	10		µg/L	1	10/2/2003 7:51:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/2/2003 7:51:00 PM
Pyridine	ND	10		µg/L	1	10/2/2003 7:51:00 PM
Surr: 2,4,6-Tribromophenol	107	45-146		%REC	1	10/2/2003 7:51:00 PM
Surr: 2-Fluorobiphenyl	86.8	55-120		%REC	1	10/2/2003 7:51:00 PM
Surr: 2-Fluorophenol	39.4	21-110		%REC	1	10/2/2003 7:51:00 PM
Surr: 4-Terphenyl-d14	103	42-153		%REC	1	10/2/2003 7:51:00 PM
Surr: Nitrobenzene-d5	84.1	51-117		%REC	1	10/2/2003 7:51:00 PM
Surr: Phenol-d6	25.6	10-110		%REC	1	10/2/2003 7:51:00 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **9/29/2003**	Analyst: **PC**
1,1-Dichloroethene	ND	100		µg/L	20	10/3/2003 4:43:00 AM
1,2-Dichloroethane	ND	100		µg/L	20	10/3/2003 4:43:00 AM
1,4-Dichlorobenzene	ND	100		µg/L	20	10/3/2003 4:43:00 AM
2-Butanone	ND	200		µg/L	20	10/3/2003 4:43:00 AM
Benzene	ND	100		µg/L	20	10/3/2003 4:43:00 AM
Carbon tetrachloride	ND	100		µg/L	20	10/3/2003 4:43:00 AM
Chlorobenzene	ND	100		µg/L	20	10/3/2003 4:43:00 AM
Chloroform	ND	100		µg/L	20	10/3/2003 4:43:00 AM
Tetrachloroethene	ND	100		µg/L	20	10/3/2003 4:43:00 AM
Trichloroethene	ND	100		µg/L	20	10/3/2003 4:43:00 AM
Vinyl chloride	ND	100		µg/L	20	10/3/2003 4:43:00 AM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 13, 2003*

CLIENT:	Navajo Refining Company	**Client Sample ID:**	Chloride Guard
Work Order:	0309259	**Collection Date:**	9/25/2003 10:00:00 AM
Project:	Artesia TCLP		
Lab ID:	0309259-01	**Matrix:**	SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%REC	20	10/3/2003 4:43:00 AM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	20	10/3/2003 4:43:00 AM
Surr: Dibromofluoromethane	96.5	70-130		%REC	20	10/3/2003 4:43:00 AM
Surr: Toluene-d8	93.5	70-130		%REC	20	10/3/2003 4:43:00 AM
CYANIDE, REACTIVE		**SW-846**				Analyst: **MAM**
Reactive Cyanide	ND	0.500		mg/Kg	1	10/2/2003
SULFIDE, REACTIVE		**SW-846**				Analyst: **MAM**
Reactive Sulfide	ND	40.0		mg/Kg	1	10/7/2003
IGNITABILITY FOR SOLIDS		**SW846, CHPT. 7.1.2**				Analyst: **MG**
Burns vigorously and persistently	No				1	9/29/2003
Ignites spontaneously	No				1	9/29/2003
Ignites through friction	No				1	9/29/2003
Ignites under std. temp and pressure	No				1	9/29/2003
Ignites with moisture	No				1	9/29/2003
PH IN SOLID		**SW9045B**				Analyst: **MG**
pH	11.6	0.100		pH Units	1	9/29/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 13, 2003*

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP
Lab ID: 0309259-02

Client Sample ID: NWAPI #1
Collection Date: 9/25/2003 10:00:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
TCLP MERCURY			**SW7470**		Prep Date: **10/2/2003**	Analyst: **JCJ**
Mercury	ND	0.00200		mg/L	1	10/2/2003 6:46:55 PM
TCLP METALS, ICP			**SW1311/6020**		Prep Date: **10/1/2003**	Analyst: **ALR**
Arsenic	ND	0.0500		mg/L	10	10/12/2003 9:10:00 PM
Barium	0.205	0.0500		mg/L	10	10/12/2003 9:10:00 PM
Cadmium	ND	0.0500		mg/L	10	10/12/2003 9:10:00 PM
Chromium	ND	0.0500		mg/L	10	10/13/2003 1:21:00 PM
Lead	ND	0.0500		mg/L	10	10/12/2003 9:10:00 PM
Selenium	0.206	0.0500		mg/L	10	10/12/2003 9:10:00 PM
Silver	ND	0.0500		mg/L	10	10/12/2003 9:10:00 PM
TCLP SEMIVOLATILES			**SW1311/8270**		Prep Date: **10/2/2003**	Analyst: **RKG**
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/2/2003 8:18:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/2/2003 8:18:00 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/2/2003 8:18:00 PM
Cresols, Total	47	30		µg/L	1	10/2/2003 8:18:00 PM
Hexachlorobenzene	ND	10		µg/L	1	10/2/2003 8:18:00 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/2/2003 8:18:00 PM
Hexachloroethane	ND	10		µg/L	1	10/2/2003 8:18:00 PM
Nitrobenzene	ND	10		µg/L	1	10/2/2003 8:18:00 PM
Pentachlorophenol	ND	10		µg/L	1	10/2/2003 8:18:00 PM
Pyridine	ND	10		µg/L	1	10/2/2003 8:18:00 PM
Surr: 2,4,6-Tribromophenol	114	45-146		%REC	1	10/2/2003 8:18:00 PM
Surr: 2-Fluorobiphenyl	91.6	55-120		%REC	1	10/2/2003 8:18:00 PM
Surr: 2-Fluorophenol	28.3	21-110		%REC	1	10/2/2003 8:18:00 PM
Surr: 4-Terphenyl-d14	107	42-153		%REC	1	10/2/2003 8:18:00 PM
Surr: Nitrobenzene-d5	89.2	51-117		%REC	1	10/2/2003 8:18:00 PM
Surr: Phenol-d6	25.8	10-110		%REC	1	10/2/2003 8:18:00 PM
TCLP VOLATILES			**SW1311/8260B**		Prep Date: **9/29/2003**	Analyst: **PC**
1,1-Dichloroethene	ND	100		µg/L	20	10/3/2003 5:10:00 AM
1,2-Dichloroethane	ND	100		µg/L	20	10/3/2003 5:10:00 AM
1,4-Dichlorobenzene	ND	100		µg/L	20	10/3/2003 5:10:00 AM
2-Butanone	ND	200		µg/L	20	10/3/2003 5:10:00 AM
Benzene	ND	100		µg/L	20	10/3/2003 5:10:00 AM
Carbon tetrachloride	ND	100		µg/L	20	10/3/2003 5:10:00 AM
Chlorobenzene	ND	100		µg/L	20	10/3/2003 5:10:00 AM
Chloroform	ND	100		µg/L	20	10/3/2003 5:10:00 AM
Tetrachloroethene	ND	100		µg/L	20	10/3/2003 5:10:00 AM
Trichloroethene	ND	100		µg/L	20	10/3/2003 5:10:00 AM
Vinyl chloride	ND	100		µg/L	20	10/3/2003 5:10:00 AM

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

Date: *October 13, 2003*

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP
Lab ID: 0309259-02

Client Sample ID: NWAPI #1
Collection Date: 9/25/2003 10:00:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%REC	20	10/3/2003 5:10:00 AM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	20	10/3/2003 5:10:00 AM
Surr: Dibromofluoromethane	94.5	70-130		%REC	20	10/3/2003 5:10:00 AM
Surr: Toluene-d8	94.4	70-130		%REC	20	10/3/2003 5:10:00 AM
CYANIDE, REACTIVE			**SW-846**			Analyst: **MAM**
Reactive Cyanide	ND	0.500		mg/Kg	1	10/2/2003
SULFIDE, REACTIVE			**SW-846**			Analyst: **MAM**
Reactive Sulfide	ND	40.0		mg/Kg	1	10/7/2003
IGNITABILITY FOR SOLIDS			**SW846, CHPT. 7.1.2**			Analyst: **MG**
Burns vigorously and persistently	No				1	9/29/2003
Ignites spontaneously	No				1	9/29/2003
Ignites through friction	No				1	9/29/2003
Ignites under std. temp and pressure	No				1	9/29/2003
Ignites with moisture	No				1	9/29/2003
PH IN SOLID			**SW9045B**			Analyst: **MG**
pH	8.51	0.100		pH Units	1	9/29/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc.

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

Date: *Oct 13 2003*

QC BATCH REPORT

Batch ID: **6787** InstrumentID: **ICP4500**

MBLK Sample ID: **MBLKW1-100103** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/12/03 20:57**

Client ID: Run ID: **ICP4500_031012A** SeqNo: **379028** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.01977	0.050								J
Barium	ND	0.050								
Cadmium	ND	0.050								
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: **MBLKT1-092903** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/12/03 22:23**

Client ID: Run ID: **ICP4500_031012A** SeqNo: **379041** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.050								
Barium	ND	0.050								
Cadmium	ND	0.050								
Chromium	0.007384	0.050								J
Lead	ND	0.050								
Selenium	ND	0.050								
Silver	ND	0.050								

MBLK Sample ID: **MBLKW1-100103** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/13/03 13:06**

Client ID: Run ID: **ICP4500_031013A** SeqNo: **379310** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	ND	0.050								

LCS Sample ID: **MLCSW1-100103** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/12/03 21:01**

Client ID: Run ID: **ICP4500_031012A** SeqNo: **379029** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.2303	0.050	0.2	0	115	80-120	0			
Barium	0.1814	0.050	0.2	0	90.7	80-120	0			
Cadmium	0.1785	0.050	0.2	0	89.2	80-120	0			
Lead	0.1794	0.050	0.2	0	89.7	80-120	0			
Selenium	0.2273	0.050	0.2	0	114	80-120	0			
Silver	0.1894	0.050	0.2	0	94.7	80-120	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **6787** InstrumentID: **ICP4500**

LCS Sample ID: **MLCSW1-100103** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/13/03 13:11**
Client ID: Run ID: **ICP4500_031013A** SeqNo: **379311** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1904	0.050	0.2	0	95.2	80-120	0			

MS Sample ID: **0309259-02AMS** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/12/03 21:19**
Client ID: **NWAPI #1** Run ID: **ICP4500_031012A** SeqNo: **379033** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1735	0.050	0.2	0.02852	72.5	75-125	0			S
Barium	0.357	0.050	0.2	0.2052	75.9	75-125	0			
Cadmium	0.139	0.050	0.2	0.00002573	69.5	75-125	0			S
Lead	0.1487	0.050	0.2	-0.0003895	74.5	75-125	0			S
Selenium	0.3436	0.050	0.2	0.2064	68.6	75-125	0			S
Silver	0.1397	0.050	0.2	-0.0001981	69.9	75-125	0			S

MS Sample ID: **0309259-02AMS** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/13/03 13:32**
Client ID: **NWAPI #1** Run ID: **ICP4500_031013A** SeqNo: **379349** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1893	0.050	0.2	0.02449	82.4	75-125	0			

MSD Sample ID: **0309259-02AMSD** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/12/03 21:23**
Client ID: **NWAPI #1** Run ID: **ICP4500_031012A** SeqNo: **379034** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.1598	0.050	0.2	0.02852	65.6	75-125	0.1735	8.22	25	S
Barium	0.3552	0.050	0.2	0.2052	75	75-125	0.357	0.505	25	
Cadmium	0.1323	0.050	0.2	0.00002573	66.1	75-125	0.139	4.94	25	S
Lead	0.1396	0.050	0.2	-0.0003895	70	75-125	0.1487	6.31	25	S
Selenium	0.3095	0.050	0.2	0.2064	51.6	75-125	0.3436	10.4	25	S
Silver	0.1325	0.050	0.2	-0.0001981	66.3	75-125	0.1397	5.29	25	S

MSD Sample ID: **0309259-02AMSD** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/13/03 13:45**
Client ID: **NWAPI #1** Run ID: **ICP4500_031013A** SeqNo: **379352** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.172	0.050	0.2	0.02449	73.8	75-125	0.1893	9.58	25	S

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **6787** InstrumentID: **ICP4500**

DUP Sample ID: **0309259-02ADUP** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/12/03 21:15**

Client ID: **NWAPI #1** Run ID: **ICP4500_031012A** SeqNo: **379032** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.03642	0.050	0	0	0	0-0	0.02852	0	25	J
Barium	0.1948	0.050	0	0	0	0-0	0.2052	5.2	25	
Cadmium	ND	0.050	0	0	0	0-0	0.00002573	0	25	
Lead	ND	0.050	0	0	0	0-0	-0.0003895	0	25	
Selenium	0.1899	0.050	0	0	0	0-0	0.2064	8.33	25	
Silver	ND	0.050	0	0	0	0-0	-0.0001981	0	25	

DUP Sample ID: **0309259-02ADUP** Test Code: **SW1311/6020** Units: **mg/L** Analysis Date: **10/13/03 13:27**

Client ID: **NWAPI #1** Run ID: **ICP4500_031013A** SeqNo: **379314** Prep Date: **10/1/2003** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.02708	0.050	0	0	0	0-0	0.02449	0	25	J

Thefollowingsampleswereanalyzedinthisbatch: 0309259-01A 0309259-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **6807** InstrumentID: **Mercury**

MBLK Sample ID: **GBLKW1-100203** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 17:58**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374749** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020								

MBLK Sample ID: **GBLKT1-100103** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:08**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374752** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020	0	0	0	0-0		0		

MBLK Sample ID: **GBLKT2-100103** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:13**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374754** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020	0	0	0	0-0		0		

LCS Sample ID: **GLCSW1-100203** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:00**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374750** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00508	0.0020	0.005	0	102	80-120		0		

LCS Sample ID: **GLCST1-100103** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:11**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374753** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00531	0.0020	0.005	0	106	80-120		0		

LCS Sample ID: **GLCST2-100103** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:17**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374755** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00523	0.0020	0.005	0	105	80-120		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **6807** InstrumentID: **Mercury**

LCSD Sample ID: **GLCSDW1-100203** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:04**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374751** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00535	0.0020	0.005	0	107	80-120	0.00508	5.18	25	

MS Sample ID: **0309229-01BMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:32**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374760** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00559	0.0020	0.005	-0.000047	113	75-125		0		

MS Sample ID: **0309259-01AMS** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:43**
Client ID: **Chloride Guard** Run ID: **MERCURY_031002A** SeqNo: **374764** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00517	0.0020	0.005	-0.000032	104	75-125		0		

MSD Sample ID: **0309229-01BMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:37**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374761** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00572	0.0020	0.005	-0.000047	115	75-125	0.00559	2.3	20	

MSD Sample ID: **0309259-01AMSD** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:45**
Client ID: **Chloride Guard** Run ID: **MERCURY_031002A** SeqNo: **374765** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00475	0.0020	0.005	-0.000032	95.6	75-125	0.00517	8.47	20	

DUP Sample ID: **0309229-01BDUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:28**
Client ID: Run ID: **MERCURY_031002A** SeqNo: **374759** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020	0	0	0	0-0	-0.000047	0	20	

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **6807** InstrumentID: **Mercury**

DUP Sample ID: **0309259-01ADUP** Test Code: **SW7470** Units: **mg/L** Analysis Date: **10/02/03 18:42**
Client ID: **ChlorideGuard** Run ID: **MERCURY_031002A** SeqNo: **374763** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.0020	0	0	0	0-0	-0.000032	0	20	

Thefollowingsampleswereanalyzedinthisbatch: 0309259-01A 0309259-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **6806** InstrumentID: **SV-3**

MBLK Sample ID: **SBLK1T1-031002** Test Code: **SW1311/8270** Units: **µg/L** Analysis Date: **10/02/03 14:26**

Client ID: Run ID: **SV-3_031002A** SeqNo: **374916** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2,4-Dinitrotoluene	ND	10								
Cresols, Total	ND	30								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachloroethane	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	99.64	10	100	0	99.6	45-146	0			
Surr: 2-Fluorobiphenyl	90.35	10	100	0	90.4	55-120	0			
Surr: 2-Fluorophenol	45.24	10	100	0	45.2	21-110	0			
Surr:4-Terphenyl-d14	106	10	100	0	106	42-153	0			
Surr:Nitrobenzene-d5	89.46	10	100	0	89.5	51-117	0			
Surr: Phenol-d6	26.72	10	100	0	26.7	10-110	0			

MBLK Sample ID: **SBLK2T1-031002** Test Code: **SW1311/8270** Units: **µg/L** Analysis Date: **10/02/03 15:47**

Client ID: Run ID: **SV-3_031002A** SeqNo: **374921** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2,4-Dinitrotoluene	ND	10								
Cresols, Total	ND	30								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachloroethane	ND	10								
Nitrobenzene	ND	10								
Pentachlorophenol	ND	10								
Pyridine	ND	10								
Surr: 2,4,6-Tribromophenol	99.55	10	100	0	99.6	45-146	0			
Surr: 2-Fluorobiphenyl	88.51	10	100	0	88.5	55-120	0			
Surr: 2-Fluorophenol	50.67	10	100	0	50.7	21-110	0			
Surr:4-Terphenyl-d14	111	10	100	0	111	42-153	0			
Surr:Nitrobenzene-d5	87.85	10	100	0	87.9	51-117	0			
Surr: Phenol-d6	31.58	10	100	0	31.6	10-110	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **6806** InstrumentID: **SV-3**

LCS Sample ID: **SLCST1-031002** Test Code: **SW1311/8270** Units: **µg/L** Analysis Date: **10/02/03 14:53**

Client ID: Run ID: **SV-3_031002A** SeqNo: **374917** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	55.84	10	50	0	112	48-119	0			
2,4,6-Trichlorophenol	54.73	10	50	0	109	52-119	0			
2,4-Dinitrotoluene	47.02	10	50	0	94	46-114	0			
Cresols, Total	119.7	30	150	0	79.8	35-100	0			
Hexachlorobenzene	25.58	10	50	0	51.2	25-84	0			
Hexachlorobutadiene	57.33	10	50	0	115	47-120	0			
Hexachloroethane	52.83	10	50	0	106	47-113	0			
Nitrobenzene	51.11	10	50	0	102	55-111	0			
Pentachlorophenol	57.01	10	50	0	114	36-120	0			
Pyridine	25.41	10	50	0	50.8	17-80	0			
Surr: 2,4,6-Tribromophenol	104.6	10	100	0	105	45-146	0			
Surr: 2-Fluorobiphenyl	94.4	10	100	0	94.4	55-120	0			
Surr: 2-Fluorophenol	51.39	10	100	0	51.4	21-110	0			
Surr:4-Terphenyl-d14	113.9	10	100	0	114	42-153	0			
Surr:Nitrobenzene-d5	96.19	10	100	0	96.2	51-117	0			
Surr: Phenol-d6	31.65	10	100	0	31.7	10-110	0			

LCSD Sample ID: **SLCSDT1-031002** Test Code: **SW1311/8270** Units: **µg/L** Analysis Date: **10/02/03 15:20**

Client ID: Run ID: **SV-3_031002A** SeqNo: **374918** Prep Date: **10/2/2003** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2,4,5-Trichlorophenol	56.27	10	50	0	113	48-119	55.84	0.769	25	
2,4,6-Trichlorophenol	54.17	10	50	0	108	52-119	54.73	1.03	25	
2,4-Dinitrotoluene	47.63	10	50	0	95.3	46-114	47.02	1.29	25	
Cresols, Total	120.7	30	150	0	80.5	35-100	119.7	0.827	25	
Hexachlorobenzene	24.9	10	50	0	49.8	25-84	25.58	2.7	25	
Hexachlorobutadiene	56.58	10	50	0	113	47-120	57.33	1.33	25	
Hexachloroethane	52.93	10	50	0	106	47-113	52.83	0.194	25	
Nitrobenzene	52.25	10	50	0	105	55-111	51.11	2.21	25	
Pentachlorophenol	56.09	10	50	0	112	36-120	57.01	1.63	42	
Pyridine	27.21	10	50	0	54.4	17-80	25.41	6.83	25	
Surr: 2,4,6-Tribromophenol	108.3	10	100	0	108	45-146	104.6	3.51	25	
Surr: 2-Fluorobiphenyl	95.73	10	100	0	95.7	55-120	94.4	1.41	25	
Surr: 2-Fluorophenol	51.56	10	100	0	51.6	21-110	51.39	0.341	25	
Surr:4-Terphenyl-d14	114.8	10	100	0	115	42-153	113.9	0.779	25	
Surr:Nitrobenzene-d5	95.9	10	100	0	95.9	51-117	96.19	0.299	25	
Surr: Phenol-d6	31.22	10	100	0	31.2	10-110	31.65	1.37	25	

Thefollowingsampleswereanalyzedinthisbatch: 0309259-01A 0309259-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **R16476** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKW-1002** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **10/03/03 0:40**

Client ID: Run ID: **VOA_I_031002C** SeqNo: **375201** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2-Butanone	ND	10								
Benzene	ND	5.0								
Carbontetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroform	ND	5.0								
Tetrachloroethene	ND	5.0								
Trichloroethene	ND	5.0								
Vinyl chloride	ND	5.0								
Surr:1,2-Dichloroethane-d4	45.66	0	50	0	91.3	70-130		0		
Surr:4-Bromofluorobenzene	46.65	0	50	0	93.3	70-130		0		
Surr:Dibromofluoromethane	48.08	0	50	0	96.2	70-130		0		
Surr: Toluene-d8	47.61	0	50	0	95.2	70-130		0		

MBLK Sample ID: **VBLKT1-1002** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **10/03/03 1:07**

Client ID: Run ID: **VOA_I_031002C** SeqNo: **375202** Prep Date: **10/1/2003** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbontetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr:1,2-Dichloroethane-d4	918.6	0	1000	0	91.9	70-130		0		
Surr:4-Bromofluorobenzene	926.9	0	1000	0	92.7	70-130		0		
Surr:Dibromofluoromethane	942.3	0	1000	0	94.2	70-130		0		
Surr: Toluene-d8	947.7	0	1000	0	94.8	70-130		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **R16476** InstrumentID: **VOA_I**

MBLK Sample ID: **VBLKT2-0930** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **10/03/03 1:34**

Client ID: Run ID: **VOA_I_031002C** SeqNo: **375203** Prep Date: **9/29/2003** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	ND	100								
1,2-Dichloroethane	ND	100								
1,4-Dichlorobenzene	ND	100								
2-Butanone	ND	200								
Benzene	ND	100								
Carbontetrachloride	ND	100								
Chlorobenzene	ND	100								
Chloroform	ND	100								
Tetrachloroethene	ND	100								
Trichloroethene	ND	100								
Vinyl chloride	ND	100								
Surr:1,2-Dichloroethane-d4	907.9	0	1000	0	90.8	70-130		0		
Surr:4-Bromofluorobenzene	923.2	0	1000	0	92.3	70-130		0		
Surr:Dibromofluoromethane	960.4	0	1000	0	96	70-130		0		
Surr: Toluene-d8	955.1	0	1000	0	95.5	70-130		0		

LCS Sample ID: **VLCSW-1002** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **10/02/03 23:18**

Client ID: Run ID: **VOA_I_031002C** SeqNo: **375199** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	55.37	5.0	50	0	111	50.8-126		0		
1,2-Dichloroethane	48.35	5.0	50	0	96.7	70-130		0		
1,4-Dichlorobenzene	48.9	5.0	50	0	97.8	70-130		0		
2-Butanone	96.03	10	100	0	96	70-130		0		
Benzene	49.75	5.0	50	0	99.5	70.1-128		0		
Carbontetrachloride	48.59	5.0	50	0	97.2	70-130		0		
Chlorobenzene	48.45	5.0	50	0	96.9	72.5-127		0		
Chloroform	51.61	5.0	50	0	103	70-130		0		
Tetrachloroethene	47.47	5.0	50	0	94.9	70-130		0		
Trichloroethene	50.19	5.0	50	0	100	72.5-129		0		
Vinyl chloride	53.24	5.0	50	0	106	70-130		0		
Surr:1,2-Dichloroethane-d4	45.28	0	50	0	90.6	65.3-120		0		
Surr:4-Bromofluorobenzene	46.54	0	50	0	93.1	74.9-115		0		
Surr:Dibromofluoromethane	47.91	0	50	0	95.8	70.5-119		0		
Surr: Toluene-d8	47.04	0	50	0	94.1	72.6-119		0		

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **R16476** InstrumentID: **VOA_I**

LCSD Sample ID: **VLCSWD-1002** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **10/02/03 23:46**

Client ID: Run ID: **VOA_I_031002C** SeqNo: **375200** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.03	5.0	50	0	114	50.8-126	55.37	2.96	20	
1,2-Dichloroethane	49.39	5.0	50	0	98.8	70-130	48.35	2.14	20	
1,4-Dichlorobenzene	50.28	5.0	50	0	101	70-130	48.9	2.78	20	
2-Butanone	96.56	10	100	0	96.6	70-130	96.03	0.545	20	
Benzene	50.41	5.0	50	0	101	70.1-128	49.75	1.31	20	
Carbontetrachloride	48.8	5.0	50	0	97.6	70-130	48.59	0.434	20	
Chlorobenzene	49.76	5.0	50	0	99.5	72.5-127	48.45	2.67	20	
Chloroform	51.87	5.0	50	0	104	70-130	51.61	0.491	20	
Tetrachloroethene	48.69	5.0	50	0	97.4	70-130	47.47	2.54	20	
Trichloroethene	49.36	5.0	50	0	98.7	72.5-129	50.19	1.66	20	
Vinyl chloride	53.83	5.0	50	0	108	70-130	53.24	1.11	20	
Surr:1,2-Dichloroethane-d4	44.9	0	50	0	89.8	65.3-120	45.28	0.83	20	
Surr:4-Bromofluorobenzene	47.56	0	50	0	95.1	74.9-115	46.54	2.17	20	
Surr: Dibromofluoromethane	47.54	0	50	0	95.1	70.5-119	47.91	0.762	20	
Surr: Toluene-d8	47.82	0	50	0	95.6	72.6-119	47.04	1.64	20	

MS Sample ID: **0310009-01BMS** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **10/03/03 2:28**

Client ID: Run ID: **VOA_I_031002C** SeqNo: **375205** Prep Date: **10/1/2003** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	969.9	100	1000	0	97	70-130	0			
1,2-Dichloroethane	1174	100	1000	0	117	70-130	0			
1,4-Dichlorobenzene	1120	100	1000	0	112	70-130	0			
2-Butanone	2198	200	2000	0	110	70-130	0			
Benzene	1092	100	1000	0	109	70-130	0			
Carbontetrachloride	853	100	1000	0	85.3	70-130	0			
Chlorobenzene	1109	100	1000	0	111	70-130	0			
Chloroform	1193	100	1000	0	119	70-130	0			
Tetrachloroethene	926.6	100	1000	0	92.7	70-130	0			
Trichloroethene	1020	100	1000	0	102	70-130	0			
Vinyl chloride	888.3	100	1000	0	88.8	70-130	0			
Surr:1,2-Dichloroethane-d4	910.9	0	1000	0	91.1	70-130	0			
Surr:4-Bromofluorobenzene	938	0	1000	0	93.8	70-130	0			
Surr: Dibromofluoromethane	963.1	0	1000	0	96.3	70-130	0			
Surr: Toluene-d8	932.4	0	1000	0	93.2	70-130	0			

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **R16476** InstrumentID: **VOA_I**

MSD Sample ID: **0310009-01BMSD** Test Code: **SW1311/8260** Units: **µg/L** Analysis Date: **10/03/03 2:55**

Client ID: Run ID: **VOA_I_031002C** SeqNo: **375206** Prep Date: **10/1/2003** DF: **20**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1-Dichloroethene	1054	100	1000	0	105	70-130	969.9	8.28	20	
1,2-Dichloroethane	1169	100	1000	0	117	70-130	1174	0.428	0	
1,4-Dichlorobenzene	1147	100	1000	0	115	70-130	1120	2.46	0	
2-Butanone	2286	200	2000	0	114	70-130	2198	3.91	0	
Benzene	1110	100	1000	0	111	70-130	1092	1.65	20	
Carbontetrachloride	903.3	100	1000	0	90.3	70-130	853	5.73	0	
Chlorobenzene	1134	100	1000	0	113	70-130	1109	2.28	20	
Chloroform	1208	100	1000	0	121	70-130	1193	1.19	0	
Tetrachloroethene	962.8	100	1000	0	96.3	70-130	926.6	3.83	0	
Trichloroethene	1048	100	1000	0	105	70-130	1020	2.7	20	
Vinyl chloride	942.7	100	1000	0	94.3	70-130	888.3	5.94	0	
Surr:1,2-Dichloroethane-d4	920.8	0	1000	0	92.1	70-130	910.9	1.08	20	
Surr:4-Bromofluorobenzene	948	0	1000	0	94.8	70-130	938	1.06	20	
Surr:Dibromofluoromethane	964.2	0	1000	0	96.4	70-130	963.1	0.113	20	
Surr:Toluene-d8	940.7	0	1000	0	94.1	70-130	932.4	0.891	20	

Thefollowingsampleswereanalyzedinthisbatch: 0309259-01A 0309259-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **R16377** InstrumentID: **WetChemistry**

LCS Sample ID: **WLCSS1-092903** Test Code: **SW9045B** Units: **pH Units** Analysis Date: **09/29/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0309** SeqNo: **373022** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.01	0.10	6	0	100	85-115	0			

DUP Sample ID: **0309255-01BDUP** Test Code: **SW9045B** Units: **pH Units** Analysis Date: **09/29/03 0:00**
Client ID: Run ID: **WET CHEMISTRY_0309** SeqNo: **373029** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	7.03	0.10	0	0	0	75-125	7.02	0.142	20	

Thefollowingsampleswereanalyzedinthisbatch: 0309259-01A 0309259-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: Navajo Refining Company
Work Order: 0309259
Project: Artesia TCLP

QC BATCH REPORT

Batch ID: **R16382** InstrumentID: **WetChemistry**

DUP Sample ID: **0309259-01ADUP** Test Code: **SW846, Chpt.** Units: Analysis Date: **09/29/03 0:00**

Client ID: **ChlorideGuard** Run ID: **WET CHEMISTRY_0309** SeqNo: **373069** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Burns vigorously and persistently	ND	0	0	0	0	0-0	0	0	0	
Ignites spontaneously	ND	0	0	0	0	0-0	0	0	0	
Ignites through friction	ND	0	0	0	0	0-0	0	0	0	
Ignites under std. temp and pressur	ND	0	0	0	0	0-0	0	0	0	
Ignites with moisture	ND	0	0	0	0	0-0	0	0	0	

Thefollowingsampleswereanalyzedinthisbatch: 0309259-01A 0309259-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is > 4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference > 40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

E-LAB

W.O.# B09259

Page____of____

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

~~Trace Analysis~~, Inc.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #:

Company Name: Navajo

Phone #: 505 748-3311

Address: (Street, City, Zip) 501 E. Main

Fax #: 505 746-5421

Contact Person: Charlie Plymale

Invoice to: (If different from above)

Project #:

Project Name: TCLP's

Project Location: Artesia

Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE		SAMPLING: DATE	TIME
	Chloride Guard	1	8oz		X								X	X		9/25/03	1000
	NW API #1	1	8oz		X								X	X		9/25/03	1000

ANALYSIS REQUEST (Circle or Specify Method No.)

FIELD CODE	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
Chloride Guard						X	X	X		X							
NW API #1						X	X	X		X							

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	9/25/03	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: RICHARD SANCHEZ	Date: 9-26-03	Time: 0920

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp °

Log-in Review

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Carrier #

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

e-Lab, Inc.

Sample Receipt Checklist

Client Name NAVAJO REFINING

Date/Time Received: 9/26/2003 9:20:00 AM

Work Order Number 0309259

Received by: RSZ

Checklist completed by [signature] 9/26/03 (Signature / Date)

Reviewed by LT 9/29/03 (Initials / Date)

Matrix: Catalyst

Carrier name: FedEx

	Yes	No	Not Present
Shipping container/cooler in good condition?	☑	☐	☐
Custody seals intact on shipping container/cooler?	☐	☐	☑
Custody seals intact on sample bottles?	☐	☐	☑
Chain of custody present?	☑	☐	
Chain of custody signed when relinquished and received?	☑	☐	
Chain of custody agrees with sample labels?	☑	☐	
Samples in proper container/bottle?	☑	☐	
Sample containers intact?	☑	☐	
Sufficient sample volume for indicated test?	☑	☐	
All samples received within holding time?	☑	☐	
Container/Temp Blank temperature in compliance?	☑	☐	
Temperature(s)/Thermometer(s):	4.7c	003	
Water - VOA vials have zero headspace?	☐	☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	☐	☐	N/A ☑

Adjusted? _____ Checked by _____

Login Notes:

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

W.O.# 0309259.

NAVAJO REFINING COMPANY

501 E. MAIN STREET
ARTESIA NM 88210
5057483311

SHIP DATE: 25SEP2003
ACCOUNT # 113684186
ACTUAL WGT: 7.00 LBS

Part # 156148-434 NRIT 6-02

TO:

2815305656
BILL RECIPIENT

E-LAB
SAMPLE RECIEVING
10450 STANCLIFF ROAD STE 210
-
HOUSTON TX 77099

Delivery Address Barcode

FedEx STANDARD OVERNIGHT

FRI

DELIVER BY:
26SEP2003
A2

System # 2223500 25SEP2003
TRK# 7909 1278 5015 Form 0201

IAH

77099-TX-US A9 JGQA

QSUS v5.2.00 2223500 2644 04/02

e-Lab, Inc **Date:** *October 07, 2003*

CLIENT: e-Lab, Inc
Project: 0309259
Work Order: **0309408**

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
0309408-01	0309259-01B	Soil		9/25/2003 10:00	9/30/2003 10:45	☐
0309408-02	0309259-02B	Soil		9/25/2003 10:00	9/30/2003 10:45	☐

e-Lab, Inc

Date: *October 07, 2003*

CLIENT: e-Lab, Inc
Project: 0309259

Work Order: 0309408

Lab ID: 0309408-01A
Client Sample ID: 0309259-01B

Collection Date: 9/25/2003 10:00:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			**EPA 7.3.3.2**			Analyst: **KAE**
Cyanide, Reactive	ND	0.50		mg/Kg	1	10/2/2003
SULFIDE, REACTIVE			**EPA 7.3.4.2**			Analyst: **KAE**
Sulfide, Reactive	ND	40		mg/Kg	1	10/7/2003

Lab ID: 0309408-02A
Client Sample ID: 0309259-02B

Collection Date: 9/25/2003 10:00:00 AM
Matrix: SOIL

Analyses	Result	Report Limit	Qual	Units	Dilution Factor	Date Analyzed
CYANIDE, REACTIVE			**EPA 7.3.3.2**			Analyst: **KAE**
Cyanide, Reactive	ND	0.50		mg/Kg	1	10/2/2003
SULFIDE, REACTIVE			**EPA 7.3.4.2**			Analyst: **KAE**
Sulfide, Reactive	ND	40		mg/Kg	1	10/7/2003

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
*- Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
P - Dual Column results percent difference > 40%
E - Value above quantitation range
H - Analyzed outside of Hold Time

e-Lab, Inc

CLIENT: e-Lab, Inc
Work Order: 0309408
Project: 0309259

Date: *Oct 07 2003*

QC BATCH REPORT

Batch ID: **R16777** Instrument ID: **WETCHEM**

MBLK Sample ID: **WBLKW1-100103** Test Code: **EPA 7.3.3.2** Units: **mg/Kg** Analysis Date **10/02/03 0:00**

Client ID: Run ID: **WETCHEM_031002C** SeqNo: **242301** Prep Date:

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	ND	0.50								

LCS Sample ID: **WLCSW1-100103** Test Code: **EPA 7.3.3.2** Units: **mg/Kg** Analysis Date **10/02/03 0:00**

Client ID: Run ID: **WETCHEM_031002C** SeqNo: **242302** Prep Date:

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Cyanide, Reactive	5.075	0.50	19.2	0	26.4	5-100	0			

The following samples were analyzed in this batch: 0309408-01A 0309408-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is >4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference >40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

CLIENT: e-Lab, Inc
Work Order: 0309408
Project: 0309259

QC BATCH REPORT

Batch ID: **R16857** Instrument ID: **WETCHEM**

MBLK Sample ID: **WBLKW1-031007** Test Code: **EPA 7.3.4.2** Units: **mg/Kg** Analysis Date **10/07/03 0:00**
Client ID: Run ID: **WETCHEM_031007L** SeqNo: **243302** Prep Date:

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sulfide, Reactive	ND	40								

The following samples were analyzed in this batch: 0309408-01A 0309408-02A

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
O - Referenced analyte value is >4 times amount spiked
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
P - Dual Column results percent difference >40%
B - Analyte detected in assoc. Method Blank
U - Analyzed for but not detected
E - Value above quantitation range

Outsource to the Secure Source
LASON™

THE REPRODUCTION OF

THE

FOLLOWING

DOCUMENT (S)

CANNOT BE IMPROVED

DUE TO

THE CONDITION OF

THE ORIGINAL

CHAIN-OF-CUSTODY RECORD

[illegible]-Lab, Inc.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Sep 16, 2003

	Sample ID	Matrix	Collection Date	SW846	Requested Tests		
[illegible]	[illegible]	Soil	[illegible]	[illegible]			
[illegible]	[illegible]	Soil	[illegible]	[illegible]			

Comments: Please analyze for Reactive Cyanide and Reactive Sulfide. Compare all to Lab Detail. Results are to [illegible]

		Date/Time			Date/Time
Relinquished by:	[illegible]	[illegible]	Received by:	[illegible]	
Relinquished by:	[illegible]		Received by:	[illegible]	[illegible]

[illegible]

Sample Receipt Checklist

[illegible] Date/Time [illegible]

[illegible] Received [illegible]

Checked by [illegible] Reviewed [illegible]

Item	Checklist	Rejected	
[illegible]	Yes ✓	No	[illegible]
[illegible]	[illegible]	[illegible]	[illegible] ✓
[illegible]	[illegible]	[illegible]	[illegible] ✓
[illegible]	Yes ✓	[illegible]	
[illegible]	Yes ✓	[illegible]	
[illegible]	Yes ✓	[illegible]	
[illegible]	[illegible] ✓	No	
[illegible]	Yes ✓	No	
[illegible]	Yes ✓	No	
[illegible]	Yes ✓	No	
[illegible]	Yes ✓	No	
[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible] ✓
[illegible]	[illegible]	[illegible]	[illegible] ✓

[illegible]

[illegible]

[illegible]

[illegible]	Date [illegible]	Pass/Fail [illegible]
[illegible]	[illegible]	

[illegible]

[illegible]

FedEx.

To: e-Lab Sample Receiving (616)399-6070
e-Lab Michigan
3352 120th Ave.

Holland, MI 49424

SHIP DATE: 29SEP03

TRK # 7909 1582 7105

FedEx STANDARD OVERNIGHT

TUE

GRR

49424-MI-US

NH HLMA

30SEP03

8-4-03

Hazardous material

Per Link Lacewell BLM
will be going to
Arkansas Hazwaste
Facility.

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

RECEIVED
AUG 0 1 2003
Environmental Bureau
Oil Conservation Division

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised June 10, 2003

Submit Original
Plus 1 Copy
to Appropriate
District Office

AUG 1 2003

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☑ ☐Verbal Approval Received: Yes ☐ No ☐	4. Generator BLM
	5. Originating Site I&W HOT OIL SERVICE SOUTH
2. Management Facility Destination ARTESIA AREATION	6. Transporter Gandy
3. Address of Facility Operator BOX 310 Hobbs N.M. 88240	8. State N.M.
7. Location of Material (Street Address or ULSTR) MALJAMAR N.M.	

9. Circle One:

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

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

CONTAMINATED SOIL

JUL 2003
RECEIVED
Hobbs
OCD

This Approval is For Contaminated Soil From the I & W South Site and South Site #2. The Area of High Contamination That is shown in Red on Figure 4 ~~Map~~ Sample Location map Covered by Sample IW2-WS2 Lab # T2695-2 And T2695-2A is Hazardous Due to benzene Levels and is Not Approved To go to any OCD ~~Surface~~ Waste management Facility. MK

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

SIGNATURE Jim Wil TITLE: MANAGER DATE: 7/24/03
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: JIM WILSON TELEPHONE NO. 505-392-9575

E-MAIL ADDRESS _____

080405-1

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne J Kupsky TITLE: Environmental Geologist DATE: 8-4-03

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address	2. Destination Name:
BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 E. Greene Ave. Carlsbad, NM 88220	ARTESIA AERATION P.O. Box 310 Hobbs, NM 88240
3. Originating Site (name): I&W Hot Oil Service South Eddy County, NM	Location of Waste (Street address &/or ULSTR): Maljamar, New Mexico
4. Source and Description of Waste Contaminated Soil	

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

___ **EXEMPT** oilfield waste

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

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

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

____ MSDS Information

____ RCRA Hazardous Waste Analysis

____ Chain of Custody

____ Other (description)

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

Name (Original Signature): Link Lacewell

Title: BLM Hazmat Coordinator, CFO

Date: July 25, 2003

Bureau of Land Management
Received
NOV - 6 2002
Carlsbad Field Office
Carlsbad, N.M.

FINAL
ENGINEERING EVALUATION/COST ANALYSIS
I&W HOT OIL SERVICE SOUTH
EDDY COUNTY, NEW MEXICO

September 2002

Submitted by:

DYNAMAC CORPORATION

Dynamac Corporation
20440 Century Boulevard
Germantown, Maryland 20874

Submitted to:

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Bureau of Land Management
Carlsbad Field Office
620 East Greene Avenue
Carlsbad, NM 88220

Attachment B

Data Validation Report and Raw Analytical Results

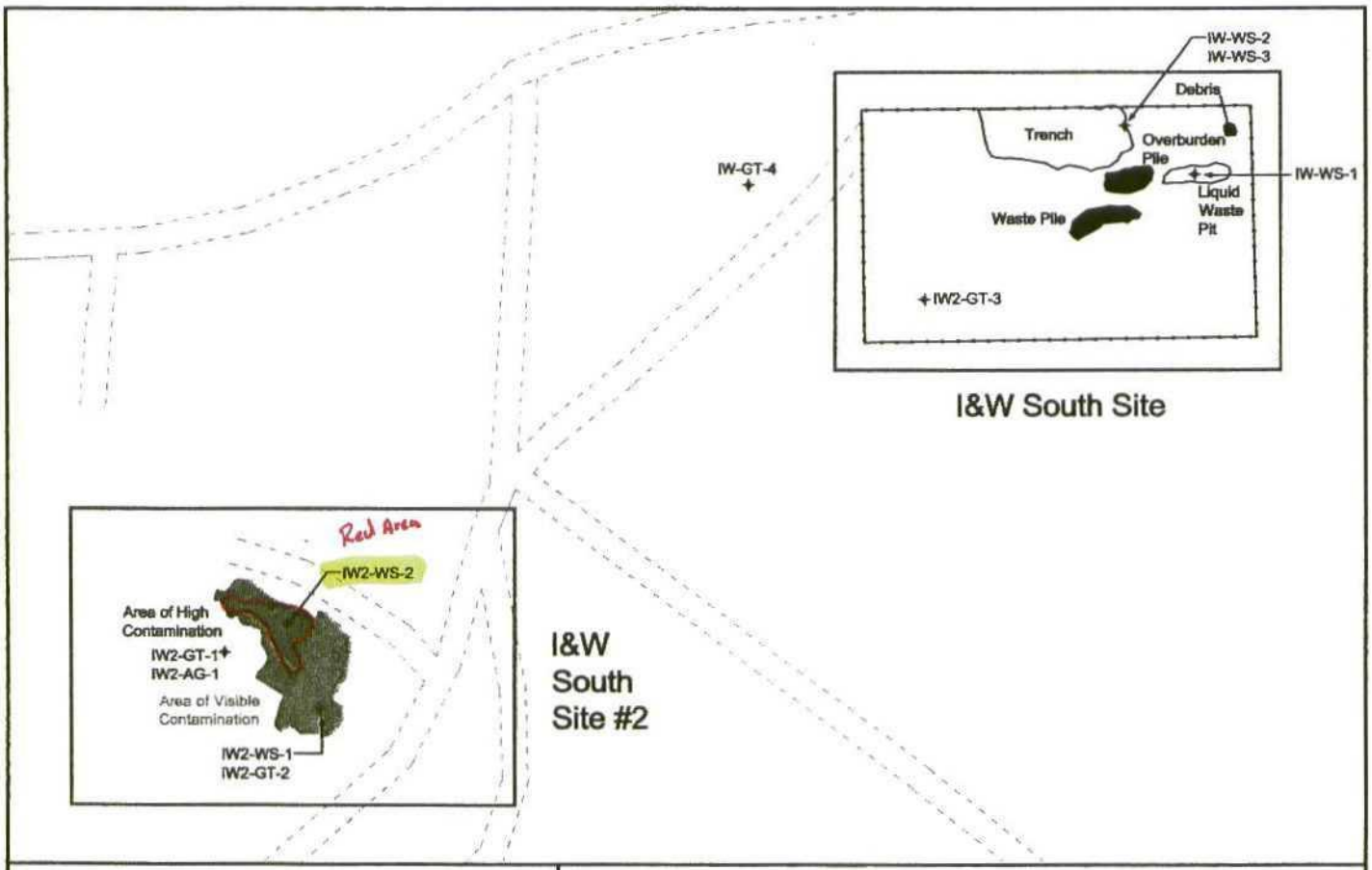


Figure 4: Sample Location Map

Date: November 2002

Scale: 0 100 200 300 400 500 600 700 800 900 1,000 feet

Legend:

- Dirt Road
- Fence
- I&W Hot Oil Service Sites
- IW-GT-4 Sample Location

DYNAMAC CORPORATION Environmental Services

Source: Roads and Structures for this Map were Digitized from the USGS 7.5 Minute Quadrangle Entitled, "Loco Hills, New Mexico, Provisional Edition 1985." Additional Site Data was Collected by GPS on September 2001.

Table 3-1: Waste Source and Soil Sampling Summary

Sample Number	Sample Type	Location/Rationale	Date	Time
~~IW-WS-1~~	Sludge	Sample collected from liquid waste pit (I&W South) to determine concentrations of RCRA metals, PAHs, BTEX compounds, and TPH for COC identification and quantificiation. Hazardous waste determination via TCLP used for evaluating disposal options. The material is believed to be have some of the highest contaminant concentrations onsite.	5/14/2002	1055
IW-WS-2	Waste material/soil	Sample collected from eastern edge of trench (I&W South) to determine the concentrations of BTEX compounds, metals, and TPH in the material exhibiting visible contamination to a lesser degree than the material in the liquid waste pit.	5/14/2002	1130
IW-WS-3	Waste material/soil	Replicate sample of IW-WS-2 collected for QA/QC purposes.	5/14/2002	1130
IW2-WS-1	Waste material/soil	Sample collected from the area of visible contamination at I&W South Site #2 and analyzed to determine concentrations of TPH and metals in the material exhibiting less visible contamination than the sludge at this location.	5/14/2002	0835
IW2-WS-2	Sludge	Collected from the area of high visible contamination at I&W South Site #2. to determine concentrations of RCRA metals, PAHs, BTEX compounds, and TPH for COC identification and quantificiation. Hazardous waste determination via TCLP used for evaluating disposal requirements. This material is believed to be representative of material with some of the highest contaminant concentrations onsite.	5/14/2002	0900
IW2-GT-1	Soil	Sample collected from an area of unimpacted native soil adjacent to I&W South Site #2. Analyzed using a suite of geotechnical tests to determine any limiting factors which may impact alternative development.	5/14/2002	0950
IW2-GT-2	Waste material/soil	Sample collected from the area of visible contamination at I&W South Site #2 and subjected to geotechnical analyses to assess the physical properties of the contaminated material.	5/14/2002	1000
IW-GT-3	Waste material/soil	Sample collected from an area of unimpacted native soil within the fenced area at I&W South to evaluate the physical properties of clean onsite soil in the event that it is necessary for use as borrow material.	5/14/2002	1338
IW-GT-4	Soil	Sample collected from an area of unimpacted native soil outside the fenced area at I&W South to evaluate the physical properties of nearby offsite soil in the event that it is necessary for use as borrow material.	5/14/2002	1334
IW2-AG-1	Soil	Sample collected from an area of unimpacted native soil adjacent to I&W South Site #2. Analyzed using a suite of agronomic tests to determine suitability for use in landfarming operations and/or revegetation.	5/14/2002	0950
IW2-AG-2	Waste material/soil	Sample collected from the area of visible contamination at I&W South Site #2, and subjected to agronomic analyses to determine whether or not landfarming activities are possible for treatment of this material.	5/14/2002	1000
IW-AG-3	Soil	Sample collected from an area of unimpacted native soil within the fenced area at I&W South. Analyzed using a suite of agronomic analyses to determine suitability for use in landfarming operations and/or revegetation.	5/14/2002	1339
IW-AG-4	Soil	Sample collected from an area of unimpacted native soil adjacent to I&W South. Analyzed using a suite of agronomic analyses to determine suitability for use in landfarming operations and/or revegetation.	5/14/2002	1330

Date: August 14, 2002

Subject: I&W Hot Oil, Data Validation

From: Craig Markowitz - Data Validator
Dynamac Corporation

Kelly Luck - Senior Data Validator
Dynamac Corporation

To: Bryan Frey
Dynamac Corporation

Overview

Analytical data generated by Accutest Laboratories Gulf Coast, Inc. for 3 soil samples, 2 sludge samples, and 2 aqueous samples collected for the I&W Hot Oil sampling project were evaluated. The sample set contained one field blank, one trip blank, and one field duplicate pair. Samples were analyzed for total petroleum hydrocarbons (TPH; SW-846 Method 8015 modified), metals (Method 6010), mercury (Method 7471), purgeable aromatics (Method 8021), polynuclear aromatic hydrocarbons (PAHs; Method 8310), TCLP volatiles (Method 1311 and 8260), TCLP semivolatiles (Methods 1311 and 8270), TCLP metals (Methods 1311 and 6010), and TCLP mercury (Methods 1311 and 7470).

The data were reviewed according to the National Functional Guidelines for Inorganic Data Review (2/94) and National Functional Guidelines for Organic Data Review (2/94) in conjunction with the QA/QC requirements specified in SW-846 Methods 1311, 6010, 7470, 7471, 8015, 8021, 8260, 8270, and 8310. The text of this report addresses only those problems affecting usability.

Discussion

Holding Times: All analyses were completed within required holding times (14 days for TPH, purgeable aromatics, and TCLP volatiles; 14 days to extraction and 40 days to analysis for PAHs and TCLP semivolatiles; 28 days for mercury; and 180 days for metals).

Blank Analysis Results: No target analytes were detected in the method blanks reported by the laboratory or in the field and trip blanks.

Surrogate Spike Recovery Results: Surrogate spike recoveries were within QC limits in all samples, with some exceptions which are detailed in the table below.

Sample	Fraction	Surrogate	Surrogate Recovery, %	QC Limits, %	Action
IW2-WS-1	TPH	o-terphenyl	0	60-124	None; surrogate recovery was low because the sample required dilution.
IW2-WS-2	PAHs	o-terphenyl	0	37-158	None; surrogate recoveries were low because the sample required dilution.
		p-terphenyl	0	59-149	
	TPH	o-terphenyl	0	60-124	
IW-WS-1	PAHs	o-terphenyl	0	37-158	None; surrogate recoveries were low because the sample required dilution.
		p-terphenyl	0	59-149	
	TPH	o-terphenyl	0	60-124	
IW-WS-2	TPH	o-terphenyl	0	60-124	None; surrogate recovery was low because the sample required dilution.
IW-WS-3	TPH	o-terphenyl	0	60-124	None; surrogate recovery was low because the sample required dilution.

Matrix Spike/Matrix Spike Duplicate Results: The matrix spike and matrix spike duplicate (MS/MSD) recovery results for all analytes were within QC limits (laboratory-specified limits for each analyte) for all organic analytes, and were within QC limits (75-125%) for all inorganic analytes, with the exception of TCLP barium (recoveries of 65.0% and 67.5%). The results for TCLP barium in samples IW2-WS-2 and IW-WS-1 were qualified as estimated with a low bias (L).

Samples outside the sample set were used for MS/MSD for purgeable aromatics (soil samples), PAHs, metals (soil samples), and mercury (soil samples); all results were within QC limits.

Relative percent difference (RPD) between the analysis of matrix spike and matrix spike duplicate samples was within the QC limits (0-20% RPD for metals and mercury; laboratory-specified limits for organic analytes).

Laboratory Duplicate Samples: The RPD between the analysis of samples and their laboratory duplicates was within QC limits (0-20% RPD for metals and mercury; laboratory-specified limits for organic analytes) for all analytes. Laboratory duplicate analyses were not conducted for TPH (MS/MSD analyses were conducted instead).

Samples outside the sample set were used for duplicate analyses for percent solids, purgeable aromatics (soil samples), PAHs (soil samples), metals (soil samples), and mercury (soil samples); all results were within QC limits, with the exception of high RPD observed for total selenium. Because the actual matrix of the samples used for these duplicate analyses is not known, the results of these analyses cannot be applied to samples in this sample set.

Laboratory Control Sample Results: Recovery of target analytes in the laboratory control samples was within QC limits (laboratory-specified limits for each analyte) for all target analytes, with the exception of TCLP vinyl chloride. High recovery was observed for TCLP vinyl chloride in the laboratory control sample (166%); however, no qualification of data was required as TCLP vinyl chloride was not detected in any sample.

Attachment 1
Glossary of Data Qualifier Codes

ICP Serial Dilution Results: The percent difference between initial sample results and the results of a 5x dilution of the same sample were within QC limits (0-10% difference for analytes present at greater than 50x the instrument detection limit) for all analytes except TCLP barium (79.5% RPD). No qualification of data was required as TCLP barium results were previously qualified due to poor matrix spike recovery. We note that a sample outside the sample set was used for serial dilution analyses for total metals.

Field Duplicate Results: One field duplicate pair was collected, samples IW-WS-2 and IW-WS-3. The RPD between the results for target analytes in these samples are presented in the table below. All RPDs were within QC limits (0-50%).

Analyte	Units	IW-WS-2	IW-WS-3	Reporting Limit	RPD
Percent Solids	%	99.3	99.5	N/A	0.2%
Arsenic	mg/kg	5.0	4.9	1.0	2.0%
Barium	mg/kg	111	116	0.50	4.4%
Cadmium	mg/kg	<0.50	<0.50	0.50	Not calculated
Chromium	mg/kg	8.6	9.1	1.5	5.7%
Lead	mg/kg	13.6	16.3	0.50	18.1%
Mercury	mg/kg	<0.065	<0.066	0.065	Not calculated
Selenium	mg/kg	<0.50	<0.50	0.50	Not calculated
Silver	mg/kg	<1.0	<1.0	1.0	Not calculated
TPH (C10-C40)	mg/kg	15500	15200	3300	2.0%
Benzene	ug/kg	ND	ND	50	Not calculated
Toluene	ug/kg	ND	ND	50	Not calculated
Ethylbenzene	ug/kg	ND	ND	50	Not calculated
Xylenes (total)	ug/kg	ND	ND	150	Not calculated

Attachments:

1. Glossary of Data Qualifier Codes
2. Data Summary Forms. These are spreadsheets of all results with applied qualifier codes.

GLOSSARY OF DATA QUALIFIERS CODES - INORGANIC

Code	Definition
Codes Relating to Identification	
(NO CODE)	Confirmed identification.
U	Not detected. The associated number indicates approximate sample concentration necessary to be detected.
B	Detected at greater than the reporting limit but not substantially above the level reported in laboratory or field blanks.
R	Results are rejected. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.
Codes Relating to Quantitation	
J	Analyte present. Reported value may not be accurate or precise. This qualifier is applied in cases where the relative percent difference between duplicate analyses (matrix spike/matrix spike duplicate, laboratory duplicate, and/or field duplicate) is outside the QC limits.
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower. This qualifier is applied in cases where the matrix spike, post-digestion spike, or laboratory control sample recovery is higher than the QC limits.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher. This qualifier is applied in cases where samples were analyzed outside holding times, or where the matrix spike, post-digestion spike, or laboratory control sample recovery is lower than the QC limits.
UJ	Not detected; reporting limit may be inaccurate or imprecise. This qualifier is applied in cases where the relative percent difference between duplicate analyses (matrix spike/matrix spike duplicate, laboratory duplicate, and/or field duplicate) is outside the QC limits.
UL	Not detected; reporting limit is probably higher. This qualifier is applied in cases where samples were analyzed outside holding times, or where the matrix spike, post-digestion spike, or laboratory control sample recovery is lower than the QC limits.

Attachment 2
Data Summary Forms

Laboratory ID		T2695-1					T2695-2					T2695-2A					T2695-3					T2695-3A				
Dynamac Sample ID		IW2-WS-1					IW2-WS-2										IW-WS-1									
Date Sampled		14-May-02					14-May-02										14-May-02									
Matrix		Soil					Sludge										Sludge									
Percent Solids		99.6					67.6										76.8									
		Total					Total					TCLP Leachate					Total					TCLP Leachate				
METHOD	ANALYTE	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL
8021B	Benzene	NA					270600		ug/kg	5000	8000	NA					8160		ug/kg	500	660	NA				
8021B	Toluene	NA					190000		ug/kg	5000	8000	NA					ND		ug/kg	500	660	NA				
8021B	Ethylbenzene	NA					107000		ug/kg	5000	8000	NA					13700		ug/kg	500	660	NA				
8021B	Xylenes (total)	NA					248000		ug/kg	5000	24000	NA					9160		ug/kg	500	2000	NA				
8260B	Benzene	NA					NA					3.59		mg/l	40	0.20	NA					0.194		mg/l	20	0.20
8260B	Chlorobenzene	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8260B	Chloroform	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8260B	Carbon tetrachloride	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8260B	1,1-Dichloroethylene	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8260B	1,2-Dichloroethane	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8260B	Methyl ethyl ketone	NA					NA					ND		mg/l	20	0.20	NA					ND		mg/l	20	0.20
8260B	Tetrachloroethylene	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8260B	Trichloroethylene	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8260B	Vinyl chloride	NA					NA					ND		mg/l	20	0.10	NA					ND		mg/l	20	0.10
8270C	2-Methylphenol	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	3&4-Methylphenol	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	Pentachlorophenol	NA					NA					ND		mg/l	1	0.25	NA					ND		mg/l	1	0.25
8270C	2,4,5-Trichlorophenol	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	2,4,6-Trichlorophenol	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	1,4-Dichlorobenzene	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	2,4-Dinitrotoluene	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	Hexachlorobenzene	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	Hexachlorobutadiene	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	Hexachloroethane	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	Nitrobenzene	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050
8270C	Pyridine	NA					NA					ND		mg/l	1	0.050	NA					ND		mg/l	1	0.050

I and W Hot Oil
Sample Results

Lab Job Number T2695

Laboratory ID		T2695-1					T2695-2					T2695-2A					T2695-3					T2695-3A				
Dynamac Sample ID		IW2-WS-1					IW2-WS-2										IW-WS-1									
Date Sampled		14-May-02					14-May-02										14-May-02									
Matrix		Soil					Sludge										Sludge									
Percent Solids		99.6					67.6										76.8									
		Total					Total					TCLP Leachate					Total					TCLP Leachate				
METHOD	ANALYTE	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL
6010B	Arsenic	7.3		mg/kg	1	0.99	275		mg/kg	1	1.5	0.3		mg/l	10	0.10	35.6		mg/kg	1	1.3	<0.10		mg/l	10	0.10
6010B	Barium	41.6		mg/kg	1	0.50	30.3		mg/kg	1	0.73	0.36	L	mg/l	10	0.10	421		mg/kg	1	0.65	0.73	L	mg/l	10	0.10
6010B	Cadmium	<0.50		mg/kg	1	0.50	<0.73		mg/kg	1	0.73	<0.040		mg/l	10	0.040	<0.65		mg/kg	1	0.65	<0.040		mg/l	10	0.040
6010B	Chromium	5.9		mg/kg	1	1.5	48.5		mg/kg	1	2.2	<0.10		mg/l	10	0.10	34		mg/kg	1	2.0	<0.10		mg/l	10	0.10
6010B	Lead	5.5		mg/kg	1	0.50	124		mg/kg	1	0.73	<0.10		mg/l	10	0.10	146		mg/kg	1	0.65	<0.10		mg/l	10	0.10
7470/7471	Mercury	<0.063		mg/kg	1	0.063	<0.097		mg/kg	1	0.097	<0.0020		mg/l	1	0.0020	0.72		mg/kg	1	0.087	<0.0020		mg/l	1	0.0020
6010B	Selenium	<0.50		mg/kg	1	0.50	1.6		mg/kg	1	0.73	<0.10		mg/l	10	0.10	0.99		mg/kg	1	0.65	<0.10		mg/l	10	0.10
6010B	Silver	<0.99		mg/kg	1	0.99	<1.5		mg/kg	1	1.5	<0.050		mg/l	10	0.050	<1.3		mg/kg	1	1.3	<0.050		mg/l	10	0.050
8015 M	TPH (C10-C40)	2300		mg/kg	10	1700	458000		mg/kg	100	240000	NA					104000		mg/kg	100	22000	NA				
8310	Acenaphthene	NA					ND		ug/kg	10	190000	NA					ND		ug/kg	10	86000	NA				
8310	Acenaphthylene	NA					ND		ug/kg	10	190000	NA					ND		ug/kg	10	86000	NA				
8310	Anthracene	NA					ND		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	Benzo(a)anthracene	NA					ND		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	Benzo(a)pyrene	NA					ND		ug/kg	10	19000	NA					ND		ug/kg	10	8600	NA				
8310	Benzo(b)fluoranthene	NA					ND		ug/kg	10	19000	NA					ND		ug/kg	10	8600	NA				
8310	Benzo(g,h,i)perylene	NA					ND		ug/kg	10	19000	NA					ND		ug/kg	10	8600	NA				
8310	Benzo(k)fluoranthene	NA					ND		ug/kg	10	19000	NA					ND		ug/kg	10	8600	NA				
8310	Chrysene	NA					ND		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	Dibenzo(a,h)anthracene	NA					ND		ug/kg	10	19000	NA					ND		ug/kg	10	8600	NA				
8310	Fluoranthene	NA					ND		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	Fluorene	NA					ND		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	Indeno(1,2,3-cd)pyrene	NA					ND		ug/kg	10	19000	NA					ND		ug/kg	10	8600	NA				
8310	Naphthalene	NA					118000		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	1-Methylnaphthalene	NA					368000		ug/kg	10	96000	NA					22500	J	ug/kg	10	43000	NA				
8310	2-Methylnaphthalene	NA					303000		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	Phenanthrene	NA					ND		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				
8310	Pyrene	NA					ND		ug/kg	10	96000	NA					ND		ug/kg	10	43000	NA				

Laboratory ID		T2695-4					T2695-5					T2695-6					T2695-7				
Dynamac Sample ID		IW-WS-2					IW-WS-3					FB-1					TB-1				
Date Sampled		14-May-02					14-May-02					14-May-02					14-May-02				
Matrix		Soil					Soil					Field blank					Trip blank				
Percent Solids		99.3					99.5					NA					NA				
		Total					Total					Total					Total				
METHOD	ANALYTE	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL
8021B	Benzene	ND		ug/kg	50	50	ND		ug/kg	50	50	ND		ug/l	1	1.0	ND		ug/l	1	1.0
8021B	Toluene	ND		ug/kg	50	50	ND		ug/kg	50	50	ND		ug/l	1	1.0	ND		ug/l	1	1.0
8021B	Ethylbenzene	ND		ug/kg	50	50	ND		ug/kg	50	50	ND		ug/l	1	1.0	ND		ug/l	1	1.0
8021B	Xylenes (total)	ND		ug/kg	50	150	ND		ug/kg	50	150	ND		ug/l	1	3.0	ND		ug/l	1	3.0
8260B	Benzene	NA					NA					NA					NA				
8260B	Chlorobenzene	NA					NA					NA					NA				
8260B	Chloroform	NA					NA					NA					NA				
8260B	Carbon tetrachloride	NA					NA					NA					NA				
8260B	1,1-Dichloroethylene	NA					NA					NA					NA				
8260B	1,2-Dichloroethane	NA					NA					NA					NA				
8260B	Methyl ethyl ketone	NA					NA					NA					NA				
8260B	Tetrachloroethylene	NA					NA					NA					NA				
8260B	Trichloroethylene	NA					NA					NA					NA				
8260B	Vinyl chloride	NA					NA					NA					NA				
8270C	2-Methylphenol	NA					NA					NA					NA				
8270C	3&4-Methylphenol	NA					NA					NA					NA				
8270C	Pentachlorophenol	NA					NA					NA					NA				
8270C	2,4,5-Trichlorophenol	NA					NA					NA					NA				
8270C	2,4,6-Trichlorophenol	NA					NA					NA					NA				
8270C	1,4-Dichlorobenzene	NA					NA					NA					NA				
8270C	2,4-Dinitrotoluene	NA					NA					NA					NA				
8270C	Hexachlorobenzene	NA					NA					NA					NA				
8270C	Hexachlorobutadiene	NA					NA					NA					NA				
8270C	Hexachloroethane	NA					NA					NA					NA				
8270C	Nitrobenzene	NA					NA					NA					NA				
8270C	Pyridine	NA					NA					NA					NA				

Laboratory ID		T2695-4					T2695-5					T2695-6					T2695-7				
Dynamac Sample ID		IW-WS-2					IW-WS-3					FB-1					TB-1				
Date Sampled		14-May-02					14-May-02					14-May-02					14-May-02				
Matrix		Soil					Soil					Field blank					Trip blank				
Percent Solids		99.3					99.5					NA					NA				
		Total					Total					Total					Total				
METHOD	ANALYTE	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL	Result	DQF	UNITS	DF	RL
6010B	Arsenic	5.0		mg/kg	1	1.0	4.9		mg/kg	1	1.0	NA					NA				
6010B	Barium	111		mg/kg	1	0.50	116		mg/kg	1	0.50	NA					NA				
6010B	Cadmium	<0.50		mg/kg	1	0.50	<0.50		mg/kg	1	0.50	NA					NA				
6010B	Chromium	8.6		mg/kg	1	1.5	9.1		mg/kg	1	1.5	NA					NA				
6010B	Lead	13.6		mg/kg	1	0.50	16.3		mg/kg	1	0.50	NA					NA				
7470/7471	Mercury	<0.065		mg/kg	1	0.065	<0.066		mg/kg	1	0.066	NA					NA				
6010B	Selenium	<0.50		mg/kg	1	0.50	<0.50		mg/kg	1	0.50	NA					NA				
6010B	Silver	<1.0		mg/kg	1	1.0	<1.0		mg/kg	1	1.0	NA					NA				
8015 M	TPH (C10-C40)	15500		mg/kg	20	3300	15200		mg/kg	20	3300	NA					NA				
8310	Acenaphthene	NA					NA					NA					NA				
8310	Acenaphthylene	NA					NA					NA					NA				
8310	Anthracene	NA					NA					NA					NA				
8310	Benzo(a)anthracene	NA					NA					NA					NA				
8310	Benzo(a)pyrene	NA					NA					NA					NA				
8310	Benzo(b)fluoranthene	NA					NA					NA					NA				
8310	Benzo(g,h,i)perylene	NA					NA					NA					NA				
8310	Benzo(k)fluoranthene	NA					NA					NA					NA				
8310	Chrysene	NA					NA					NA					NA				
8310	Dibenzo(a,h)anthracene	NA					NA					NA					NA				
8310	Fluoranthene	NA					NA					NA					NA				
8310	Fluorene	NA					NA					NA					NA				
8310	Indeno(1,2,3-cd)pyrene	NA					NA					NA					NA				
8310	Naphthalene	NA					NA					NA					NA				
8310	1-Methylnaphthalene	NA					NA					NA					NA				
8310	2-Methylnaphthalene	NA					NA					NA					NA				
8310	Phenanthrene	NA					NA					NA					NA				
8310	Pyrene	NA					NA					NA					NA				

Gulf Coast
ACCUTEST

06/04/02

Technical Report for

Dynamac Corporation Environmental Serv.

I&W Hot Oil

DYNAMAC/ BLM / I&W HOT OIL

Accutest Job Number: T2695

Report to:

Dynamac Corporation Environmental Serv.
20440 Century Boulevard Suite 100
Germantown, MD 20874
BFrey@Dynamac.com

ATTN: Bryan Frey

Total number of pages in report:

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Ron Martino
Laboratory Manager

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.

Sample Summary

Dynamac Corporation Environmental Serv.

Job No: T2695

I&W Hot Oil
Project No: DYNAMAC/ BLM / I&W HOT OIL

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T2695-1	05/14/02	08:35 BF	05/15/02	SO	Soil	IW2-WS-1
T2695-2	05/14/02	09:00 BF	05/15/02	SO	Sludge	IW2-WS-2
T2695-3	05/14/02	10:55 BF	05/15/02	SO	Sludge	IW-WS-1
T2695-4	05/14/02	11:30 BF	05/15/02	SO	Soil	IW-WS-2
T2695-5	05/14/02	11:30 BF	05/15/02	SO	Soil	IW-WS-3
T2695-6	05/14/02	11:50 BF	05/15/02	AQ	Water	FB-1
T2695-7	05/14/02	00:00 BF	05/15/02	AQ	Trip Blank Water	TB-1
TCLP T2695-2A	05/14/02	09:00 BF	05/15/02	SO	Sludge	IW2-WS-2
TCLP T2695-3A	05/14/02	10:55 BF	05/15/02	SO	Sludge	IW-WS-1

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-1		
Lab Sample ID:	T2695-1	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
Method:	SW846 8015 M SW846 3550B	Percent Solids:	99.6
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF05174.D	10	05/23/02	AFL	05/20/02	F:OP5172	F:GZF240
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C40)	2300	1700	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		60-124%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-1		
Lab Sample ID:	T2695-1	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
		Percent Solids:	99.6
Project:	I&W Hot Oil		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.3	0.99	mg/kg	1	05/17/02	05/20/02	JA	SW846 6010B	SW846 3050B
Barium	41.6	0.50	mg/kg	1	05/17/02	05/20/02	JA	SW846 6010B	SW846 3050B
Cadmium	<0.50	0.50	mg/kg	1	05/17/02	05/20/02	JA	SW846 6010B	SW846 3050B
Chromium	5.9	1.5	mg/kg	1	05/17/02	05/20/02	JA	SW846 6010B	SW846 3050B
Lead	5.5	0.50	mg/kg	1	05/17/02	05/20/02	JA	SW846 6010B	SW846 3050B
Mercury	<0.063	0.063	mg/kg	1	05/29/02	05/29/02	JC	SW846 7471A	SW846 7471A
Selenium	<0.50	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Silver	<0.99	0.99	mg/kg	1	05/17/02	05/20/02	JA	SW846 6010B	SW846 3050B

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-2		
Lab Sample ID:	T2695-2	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	SW846 8021B	Percent Solids:	67.6
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK002462.D	5000	05/23/02	RM	n/a	n/a	GKK125
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	70600	8000	ug/kg	
108-88-3	Toluene	190000	8000	ug/kg	
100-41-4	Ethylbenzene	107000	8000	ug/kg	
1330-20-7	Xylenes (total)	248000	24000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		66-141%
98-08-8	aaa-Trifluorotoluene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-2		
Lab Sample ID:	T2695-2	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	EPA 8310 SW846 3550B	Percent Solids:	67.6
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA010812.D	10	05/23/02	AFL	05/22/02	F:OP5194	F:GAA499
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	190000	ug/kg	
208-96-8	Acenaphthylene	ND	190000	ug/kg	
120-12-7	Anthracene	ND	96000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	96000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	19000	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	19000	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	19000	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	19000	ug/kg	
218-01-9	Chrysene	ND	96000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	19000	ug/kg	
206-44-0	Fluoranthene	ND	96000	ug/kg	
86-73-7	Fluorene	ND	96000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	19000	ug/kg	
91-20-3	Naphthalene [b]	118000	96000	ug/kg	
90-12-0	1-Methylnaphthalene [b]	368000	96000	ug/kg	
91-57-6	2-Methylnaphthalene [b]	303000	96000	ug/kg	
85-01-8	Phenanthrene	ND	96000	ug/kg	
129-00-0	Pyrene	ND	96000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [c]		37-158%
92-94-4	p-Terphenyl	0% [c]		59-149%

(a) Dilution required due to matrix interference; extract was viscous.
(b) All hits confirmed by spectral match using a diode array detector.
(c) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-2		
Lab Sample ID:	T2695-2	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	SW846 8015 M SW846 3550B	Percent Solids:	67.6
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF05175.D	100	05/23/02	AFL	05/20/02	F:OP5172	F:GZF240
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C40)	458000	240000	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		60-124%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

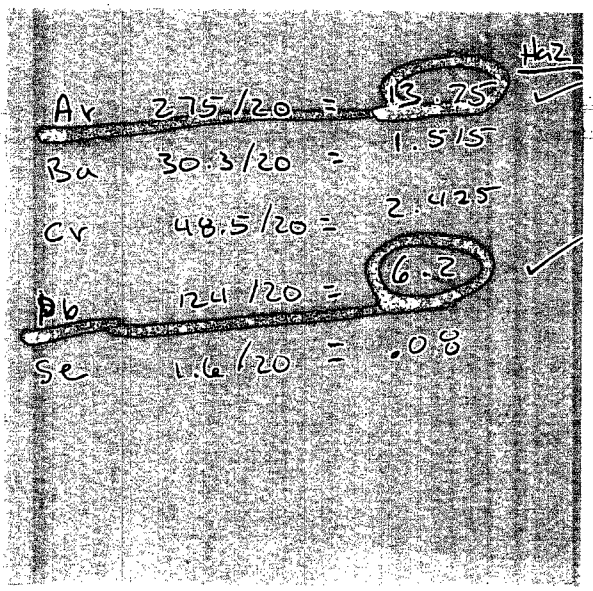
Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-2		
Lab Sample ID:	T2695-2	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
		Percent Solids:	67.6
Project:	I&W Hot Oil		

Metals Analysis TOTAL

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	275	1.5	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Barium	30.3	0.73	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Cadmium	<0.73	0.73	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Chromium	48.5	2.2	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Lead	124	0.73	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Mercury	<0.097	0.097	mg/kg	1	05/29/02	05/29/02	JC	SW846 7471A	SW846 7471A
Selenium	1.6	0.73	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Silver	<1.5	1.5	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B



RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-1		
Lab Sample ID:	T2695-3	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	SW846 8021B	Percent Solids:	76.8
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK002452.D	500	05/23/02	RM	n/a	n/a	GKK125
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	8160	660	ug/kg	
108-88-3	Toluene	ND	660	ug/kg	
100-41-4	Ethylbenzene	13700	660	ug/kg	
1330-20-7	Xylenes (total)	9160	2000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		66-141%
98-08-8	aaa-Trifluorotoluene	108%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-1		
Lab Sample ID:	T2695-3	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	EPA 8310 SW846 3550B	Percent Solids:	76.8
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA010813.D	10	05/23/02	AFL	05/22/02	F:OP5194	F:GAA499
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	86000	ug/kg	
208-96-8	Acenaphthylene	ND	86000	ug/kg	
120-12-7	Anthracene	ND	43000	ug/kg	
56-55-3	Benzo(a)anthracene	ND	43000	ug/kg	
50-32-8	Benzo(a)pyrene	ND	8600	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	8600	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	8600	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	8600	ug/kg	
218-01-9	Chrysene	ND	43000	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	8600	ug/kg	
206-44-0	Fluoranthene	ND	43000	ug/kg	
86-73-7	Fluorene	ND	43000	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	8600	ug/kg	
91-20-3	Naphthalene	ND	43000	ug/kg	
90-12-0	1-Methylnaphthalene [b]	22500	43000	ug/kg	J
91-57-6	2-Methylnaphthalene	ND	43000	ug/kg	
85-01-8	Phenanthrene	ND	43000	ug/kg	
129-00-0	Pyrene	ND	43000	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [c]		37-158%
92-94-4	p-Terphenyl	0% [c]		59-149%

(a) Dilution required due to matrix interference; extract was viscous.
(b) All hits confirmed by spectral match using a diode array detector.
(c) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-1		
Lab Sample ID:	T2695-3	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	SW846 8015 M SW846 3550B	Percent Solids:	76.8
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF05176.D	100	05/23/02	AFL	05/20/02	F:OP5172	F:GZF240
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C40)	104000	22000	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		60-124%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-1		
Lab Sample ID:	T2695-3	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
		Percent Solids:	76.8
Project:	I&W Hot Oil		

Metals Analysis TOTAL

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	35.6	1.3	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Barium	421	0.65	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Cadmium	<0.65	0.65	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Chromium	34.0	2.0	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Lead	146	0.65	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Mercury	0.72	0.087	mg/kg	1	05/29/02	05/29/02	JC	SW846 7471A	SW846 7471A
Selenium	0.99	0.65	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Silver	<1.3	1.3	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B

Haz

(5) Ar 35.6 /20 = 1.78

(100) Ba 421 /20 = 21.05

(5) Cr 34.0 /20 = 1.7

(5) Pb 146 /20 = 7.3

(2) Hg .72 /20 = .036

(1) Se .99 /20 = .0495

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-2		
Lab Sample ID:	T2695-4	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
Method:	SW846 8021B	Percent Solids:	99.3
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK002463.D	50	05/23/02	RM	n/a	n/a	GKK125
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	50	ug/kg	
108-88-3	Toluene	ND	50	ug/kg	
100-41-4	Ethylbenzene	ND	50	ug/kg	
1330-20-7	Xylenes (total)	ND	150	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		66-141%
98-08-8	aaa-Trifluorotoluene	91%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-2		
Lab Sample ID:	T2695-4	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
Method:	SW846 8015 M SW846 3550B	Percent Solids:	99.3
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF05177.D	20	05/23/02	AFL	05/20/02	F:OP5172	F:GZF240
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C40)	15500	3300	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		60-124%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-2		
Lab Sample ID:	T2695-4	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
		Percent Solids:	99.3
Project:	I&W Hot Oil		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	5.0	1.0	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Barium	111	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Cadmium	<0.50	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Chromium	8.6	1.5	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Lead	13.6	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Mercury	<0.065	0.065	mg/kg	1	05/29/02	05/29/02	JC	SW846 7471A	SW846 7471A
Selenium	<0.50	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
Silver	<1.0	1.0	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-3		
Lab Sample ID:	T2695-5	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
Method:	SW846 8021B	Percent Solids:	99.5
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK002464.D	50	05/23/02	RM	n/a	n/a	GKK125
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	50	ug/kg	
108-88-3	Toluene	ND	50	ug/kg	
100-41-4	Ethylbenzene	ND	50	ug/kg	
1330-20-7	Xylenes (total)	ND	150	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	81%		66-141%
98-08-8	aaa-Trifluorotoluene	91%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-3		
Lab Sample ID:	T2695-5	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
Method:	SW846 8015 M SW846 3550B	Percent Solids:	99.5
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF05188.D	20	05/24/02	AFL	05/20/02	F:OP5172	F:GZF241
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C40)	15200	3300	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		60-124%

(a) Outside control limits due to dilution.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-3		
Lab Sample ID:	T2695-5	Date Sampled:	05/14/02
Matrix:	SO - Soil	Date Received:	05/15/02
		Percent Solids:	99.5
Project:	I&W Hot Oil		

Metals Analysis

	Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
5.0	Arsenic	4.9	1.0	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
1000	Barium	116	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
	Cadmium	<0.50	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
	Chromium	9.1	1.5	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
5.0	Lead	16.3	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
	Mercury	<0.066	0.066	mg/kg	1	05/29/02	05/29/02	JC	SW846 7471A	SW846 7471A
	Selenium	<0.50	0.50	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B
	Silver	<1.0	1.0	mg/kg	1	05/17/02	05/21/02	JA	SW846 6010B	SW846 3050B

Barium over Limit

~~Lab ID~~ ?

Total metals (5) As 4.9/20 = .245

(100) Ba 116/20 = 5.8

(5) Cr 9.1/20 = .455

(5) Pb 16.3/20 = .815

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	FB-1		
Lab Sample ID:	T2695-6	Date Sampled:	05/14/02
Matrix:	AQ - Water	Date Received:	05/15/02
Method:	SW846 8021B	Percent Solids:	n/a
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK002390.D	1	05/20/02	RM	n/a	n/a	GKK122
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	85%		63-123%
98-08-8	aaa-Trifluorotoluene	97%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	TB-1		
Lab Sample ID:	T2695-7	Date Sampled:	05/14/02
Matrix:	AQ - Trip Blank Water	Date Received:	05/15/02
Method:	SW846 8021B	Percent Solids:	n/a
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK002394.D	200	05/20/02	RM	n/a	n/a	GKK122
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		63-123%
98-08-8	aaa-Trifluorotoluene	98%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-2		
Lab Sample ID:	T2695-2A	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	SW846 8260B	Percent Solids:	67.6
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F0049268.D	20	05/29/02	BC	05/28/02	OP1028	VF451
Run #2	F0049272.D	40	05/29/02	BC	05/28/02	OP1028	VF451

VOA-TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
71-43-2	Benzene	3.59 [a]	D018	0.50	0.20	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.10	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.10	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.10	mg/l	
75-35-4	1,1-Dichloroethylene	ND	D029	0.70	0.10	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.10	mg/l	
78-93-3	Methyl ethyl ketone	ND	D035	200	0.20	mg/l	
127-18-4	Tetrachloroethylene	ND	D039	0.70	0.10	mg/l	
79-01-6	Trichloroethylene	ND	D040	0.50	0.10	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	102%	86-118%
2037-26-5	Toluene-D8	98%	98%	88-110%
460-00-4	4-Bromofluorobenzene	105%	104%	86-115%
17060-07-0	1,2-Dichloroethane-D4	101%	102%	80-120%

(a) Result is from Run# 2

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-2			
Lab Sample ID:	T2695-2A		Date Sampled:	05/14/02
Matrix:	SO - Sludge		Date Received:	05/15/02
Method:	SW846 8270C	SW846 3510C	Percent Solids:	67.6
Project:	I&W Hot Oil			

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A01782.D	1	05/28/02	SC	05/28/02	OP1027	EA327
Run #2							

ABN-TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.050	mg/l	
	3&4-Methylphenol	ND	D024	200	0.050	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.25	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.050	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.050	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.050	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.050	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.050	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		21-100%
4165-62-2	Phenol-d5	31%		10-94%
118-79-6	2,4,6-Tribromophenol	94%		10-123%
4165-60-0	Nitrobenzene-d5	91%		35-114%
321-60-8	2-Fluorobiphenyl	92%		43-116%
1718-51-0	Terphenyl-d14	93%		33-141%

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW2-WS-2		
Lab Sample ID:	T2695-2A	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
		Percent Solids:	67.6
Project:	I&W Hot Oil		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	0.30	D004	5.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Barium	0.36	D005	100	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Cadmium	<0.040	D006	1.0	0.040	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Chromium	<0.10	D007	5.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Lead	<0.10	D008	5.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Mercury	<0.0020	D009	0.20	0.0020	mg/l	1	05/29/02	06/01/02	JA	SW846 7470A	SW846 7470A
Selenium	<0.10	D010	1.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Silver	<0.050	D011	5.0	0.050	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-1		
Lab Sample ID:	T2695-3A	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	SW846 8260B	Percent Solids:	76.8
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F0049311.D	20	05/30/02	BC	05/28/02	OP1028	VF451
Run #2							

VOA TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
71-43-2	Benzene	0.194	D018	0.50	0.10	mg/l	
108-90-7	Chlorobenzene	ND	D021	100	0.10	mg/l	
67-66-3	Chloroform	ND	D022	6.0	0.10	mg/l	
56-23-5	Carbon tetrachloride	ND	D019	0.50	0.10	mg/l	
75-35-4	1,1-Dichloroethylene	ND	D029	0.70	0.10	mg/l	
107-06-2	1,2-Dichloroethane	ND	D028	0.50	0.10	mg/l	
78-93-3	Methyl ethyl ketone	ND	D035	200	0.20	mg/l	
127-18-4	Tetrachloroethylene	ND	D039	0.70	0.10	mg/l	
79-01-6	Trichloroethylene	ND	D040	0.50	0.10	mg/l	
75-01-4	Vinyl chloride	ND	D043	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		86-118%
2037-26-5	Toluene-D8	98%		88-110%
460-00-4	4-Bromofluorobenzene	100%		86-115%
17060-07-0	1,2-Dichloroethane-D4	103%		80-120%

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-1		
Lab Sample ID:	T2695-3A	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
Method:	SW846 8270C SW846 3510C	Percent Solids:	76.8
Project:	I&W Hot Oil		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A01783.D	1	05/28/02	SC	05/28/02	OP1027	EA327
Run #2							

ABN TCLP Leachate

CAS No.	Compound	Result	HW#	MCL	RL	Units	Q
95-48-7	2-Methylphenol	ND	D023	200	0.050	mg/l	
	3&4-Methylphenol	ND	D024	200	0.050	mg/l	
87-86-5	Pentachlorophenol	ND	D037	100	0.25	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	D041	400	0.050	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	D042	2.0	0.050	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	D027	7.5	0.050	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	D030	0.13	0.050	mg/l	
118-74-1	Hexachlorobenzene	ND	D032	0.13	0.050	mg/l	
87-68-3	Hexachlorobutadiene	ND	D033	0.50	0.050	mg/l	
67-72-1	Hexachloroethane	ND	D034	3.0	0.050	mg/l	
98-95-3	Nitrobenzene	ND	D036	2.0	0.050	mg/l	
110-86-1	Pyridine	ND	D038	5.0	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		21-100%
4165-62-2	Phenol-d5	28%		10-94%
118-79-6	2,4,6-Tribromophenol	87%		10-123%
4165-60-0	Nitrobenzene-d5	82%		35-114%
321-60-8	2-Fluorobiphenyl	84%		43-116%
1718-51-0	Terphenyl-d14	81%		33-141%

ND = Not detected
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	IW-WS-1		
Lab Sample ID:	T2695-3A	Date Sampled:	05/14/02
Matrix:	SO - Sludge	Date Received:	05/15/02
		Percent Solids:	76.8
Project:	I&W Hot Oil		

Metals Analysis, TCLP Leachate-SW846 1311

Analyte	Result	HW#	MCL	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	<0.10	D004	5.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Barium	0.73	D005	100	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Cadmium	<0.040	D006	1.0	0.040	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Chromium	<0.10	D007	5.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Lead	<0.10	D008	5.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Mercury	<0.0020	D009	0.20	0.0020	mg/l	1	05/29/02	06/01/02	JA	SW846 7470A	SW846 7470A
Selenium	<0.10	D010	1.0	0.10	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A
Silver	<0.050	D011	5.0	0.050	mg/l	10	05/23/02	05/24/02	JA	SW846 6010B	SW846 3010A

RL = Reporting Limit
MCL = Maximum Contamination Level (40 CFR 261 6/96)

Analysis Request and Chain of Custody Record

Page 1 of 1

ACCUTEST.
ACCUTEST LABORATORIES GULF COAST, INC.
10165 HARWIN DRIVE, SUITE 150 • HOUSTON, TEXAS 77036 • (713) 271-4700 • FAX (713) 271-4770

Project no.:

Client/Project: DYNAMAC / BLM / I&W HOT OIL

P.O.#:

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
1	IW2-WS-1	5/14/02 0835	✓		4 oz glass x2	SOIL	4°C	RCRA METALS (6010), TPH (8015)	Only one 4oz rcvd
2	IW2-WS-2	5/14/02 0900	✓		4 oz glass x5 ; 1x 8oz gl	SLUDGE		BTEX (8021), TPH (8015), PAH (8310), METALS (6010), TCLP (1311) EXTRACT, THEN METALS, VOA, SVOA	DT HOLD VOA 2D
3	IW-WS-1	5/14/02 1055	✓		↓	SLUDGE		BTEX (8021), PAH (8310), RCRA METALS (6010), TPH (8015), TCLP (1311) EXTRACT, THEN METALS, VOA, SVOA	
4	IW-WS-2	5/14/02 1130	✓		4 oz glass x3	SOIL		BTEX (8021), METALS (6010), TPH (8015)	
5	IW-WS-3	5/14/02 1130	✓		↓	SOIL		BTEX (8021), RCRA METALS (6010), TPH (8015)	
6	FB-1	5/14/02 1150	✓		GLASS VOA vial	LIQUID ~~SOLID~~	HCl	BTEX (8021), TPH (8015)	4 x 40ml rcvd.
7	TB-1				↓	LIQUID	HCl	BTEX (8021), TPH (8015)	2 x 40ml rcvd.

Samplers: (Print)	Relinquished by: (Signature)	Date: 5/14/02 Time: 1500	Received by: (Signature) FED EX	Date: Time:	COC Seal No.
BRYAN FREY BROOKE LEWY	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	REC'D. ON ICE Yes ✓ No
Affiliation: DYNAMAC	Relinquished by: (Signature)	Date: Time:	Received by Laboratory: (Signature)	Date: 5-15-02 Time: 0900	Intact:
Results by 30 MAY 2002	REMARKS: ANY QUESTIONS, PLEASE CALL BRYAN FREY - 240.778.1012		Data Results To: 1. BRYAN FREY 2.		Laboratory No. T2645

Rush Charges Authorized: Yes ____ No ✓

QC DATA SUMMARY

Blank Spike Summary

Job Number: T2695
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: DYNAMDGE: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5172-BS	ZF05173.D	1	05/23/02	NJ	05/20/02	OP5172	GZF240

The QC reported here applies to the following samples: Method: SW846 8015 M

T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C40)	66.6	63.1	95	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	85%	60-124%

Blank Spike Summary

Job Number: T2695
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: DYNAMDGE: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5194-BS	AA010801.D	1	05/23/02	MRE	05/22/02	OP5194	GAA499

The QC reported here applies to the following samples: Method: EPA 8310

T2695-2, T2695-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	3330	2710	81	56-124
208-96-8	Acenaphthylene	3330	2780	83	55-125
120-12-7	Anthracene	3330	3310	99	57-124
56-55-3	Benzo(a)anthracene	1670	1560	94	68-124
50-32-8	Benzo(a)pyrene	1670	1460	88	56-133
205-99-2	Benzo(b)fluoranthene	1670	1570	94	69-127
191-24-2	Benzo(g,h,i)perylene	1670	1510	91	67-129
207-08-9	Benzo(k)fluoranthene	1670	1580	95	68-129
218-01-9	Chrysene	1670	1680	101	70-126
53-70-3	Dibenzo(a,h)anthracene	1670	1550	93	68-127
206-44-0	Fluoranthene	3330	3030	91	67-129
86-73-7	Fluorene	3330	2940	88	62-124
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1470	88	67-129
91-20-3	Naphthalene	3330	2520	76	54-125
90-12-0	1-Methylnaphthalene	3330	2590	78	54-123
91-57-6	2-Methylnaphthalene	3330	2600	78	55-123
85-01-8	Phenanthrene	3330	2990	90	66-125
129-00-0	Pyrene	3330	3090	93	68-125

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	93%	37-158%
92-94-4	p-Terphenyl	96%	59-149%

Method Blank Summary

Job Number: T2695
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: DYNAMDGE: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5172-MB	ZF05172.D	1	05/23/02	NJ	05/20/02	OP5172	GZF240

The QC reported here applies to the following samples: Method: SW846 8015 M

T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C40)	ND		mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-:	o-Terphenyl	76%	60-124%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T2695
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: DYNAMDGE: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5172-MS	ZF05186.D	20	05/24/02	NJ	05/20/02	OP5172	GZF241
OP5172-MSD	ZF05187.D	20	05/24/02	NJ	05/20/02	OP5172	GZF241
T2695-4	ZF05177.D	20	05/23/02	NJ	05/20/02	OP5172	GZF240

The QC reported here applies to the following samples: Method: SW846 8015 M

T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

CAS No.	Compound	T2695-4 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C40)	15500		66	7600	3180* [a]	14400	-1671* [a]	20	40-140/25

CAS No.	Surrogate Recoveries	MS	MSD	T2695-4	Limits
84-15-1	o-Terphenyl	0%* [b]	0%* [b]	0%* [b]	60-124%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Outside control limits due to dilution.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T2695
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: DYNAMDGE: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5194-MS	AA010804.D	1	05/23/02	MRE	05/22/02	OP5194	GAA499
OP5194-MSD	AA010805.D	1	05/23/02	MRE	05/22/02	OP5194	GAA499
F13224-1	AA010803.D	1	05/23/02	MRE	05/22/02	OP5194	GAA499

The QC reported here applies to the following samples: Method: EPA 8310

T2695-2, T2695-3

CAS No.	Compound	F13224-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		3880	3240	83	2900	77	11	49-132/32
208-96-8	Acenaphthylene	ND		3880	3330	86	2990	80	11	49-132/28
120-12-7	Anthracene	ND		3880	3980	103	3510	94	13	27-157/25
56-55-3	Benzo(a)anthracene	ND		1940	1810	93	1590	85	13	45-150/21
50-32-8	Benzo(a)pyrene	ND		1940	1730	89	1520	81	13	54-134/23
205-99-2	Benzo(b)fluoranthene	ND		1940	1810	93	1590	85	13	55-131/21
191-24-2	Benzo(g,h,i)perylene	ND		1940	1770	91	1550	83	13	55-133/24
207-08-9	Benzo(k)fluoranthene	ND		1940	1850	95	1620	87	13	60-133/24
218-01-9	Chrysene	ND		1940	1950	100	1710	91	13	60-139/20
53-70-3	Dibenzo(a,h)anthracene	ND		1940	1820	94	1590	85	13	57-129/20
206-44-0	Fluoranthene	ND		3880	3630	94	3190	85	13	55-139/20
86-73-7	Fluorene	ND		3880	3500	90	3130	84	11	58-126/25
193-39-5	Indeno(1,2,3-cd)pyrene	ND		1940	1730	89	1510	81	14	54-133/25
91-20-3	Naphthalene	ND		3880	2970	77	2620	70	13	35-139/31
90-12-0	1-Methylnaphthalene	ND		3880	3070	79	2740	73	11	37-135/27
91-57-6	2-Methylnaphthalene	ND		3880	3080	79	2750	73	11	41-129/36
85-01-8	Phenanthrene	ND		3880	3560	92	3180	85	11	42-150/30
129-00-0	Pyrene	ND		3880	3690	95	3260	87	12	54-140/20

CAS No.	Surrogate Recoveries	MS	MSD	F13224-1	Limits
84-15-1	o-Terphenyl	92%	86%	77%	37-158%
92-94-4	p-Terphenyl	93%	86%	82%	59-149%

Method Blank Summary

Job Number: T2695
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: DYNAMDGE: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5172-MB	ZF05185.D	1	05/24/02	NJ	05/20/02	OP5172	GZF241

The QC reported here applies to the following samples: Method: SW846 8015 M

T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

CAS No.	Compound	Result	RL	Units	Q
	TPH (C10-C40)	ND		mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	81%	60-124%

Method Blank Summary

Job Number: T2695
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: DYNAMDGE: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5194-MB	AA010802.D	1	05/23/02	MRE	05/22/02	OP5194	GAA499

The QC reported here applies to the following samples: Method: EPA 8310

T2695-2, T2695-3

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	670	ug/kg	
208-96-8	Acenaphthylene	ND	670	ug/kg	
120-12-7	Anthracene	ND	330	ug/kg	
56-55-3	Benzo(a)anthracene	ND	330	ug/kg	
50-32-8	Benzo(a)pyrene	ND	67	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	67	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	67	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	67	ug/kg	
218-01-9	Chrysene	ND	330	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	67	ug/kg	
206-44-0	Fluoranthene	ND	330	ug/kg	
86-73-7	Fluorene	ND	330	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	67	ug/kg	
91-20-3	Naphthalene	ND	330	ug/kg	
90-12-0	1-Methylnaphthalene	ND	330	ug/kg	
91-57-6	2-Methylnaphthalene	ND	330	ug/kg	
85-01-8	Phenanthrene	ND	330	ug/kg	
129-00-0	Pyrene	ND	330	ug/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	86%	37-158%
92-94-4	p-Terphenyl	93%	59-149%

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T2695
DYNAMDGE - Dynamac Corporation Environmental Serv
Project: DYNAMDGE535 - I&W Hot Oil

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Solids, Percent	GN2799	T2691-1	%	75.7	75.9	0.3	0-20%
Solids, Percent	GN2799	T2691-13	%	89.5	88.8	0.8	0-20%
Solids, Percent	GN2799	T2691-25	%	81.3	79.6	2.1	0-20%

Associated Samples:
Batch GN2799: T2695-1, T2695-2, T2695-3 T2695-4

Blank Spike Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK122-BS	KK002378.D	1	05/20/02	RM	n/a	n/a	GKK122

The QC reported here applies to the following samples: Method: SW846 8021B

T2695-6, T2695-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.7	94	50-124
100-41-4	Ethylbenzene	20	18.7	94	52-131
108-88-3	Toluene	20	18.2	91	56-123
1330-20-7	Xylenes (total)	60	54.6	91	54-129

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	94%	63-123%
98-08-8	aaa-Trifluorotoluene	101%	70-130%

Blank Spike Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv.
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK125-BS	KK002445.D	50	05/23/02	RM	n/a	n/a	GKK125

The QC reported here applies to the following samples: Method: SW846 8021B

T2695-2, T2695-3, T2695-4, T2695-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	1000	937	94	59-137
100-41-4	Ethylbenzene	1000	961	96	62-136
108-88-3	Toluene	1000	926	93	64-131
1330-20-7	Xylenes (total)	3000	2810	94	66-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	95%	66-141%
98-08-8	aaa-Trifluorotoluene	99%	70-130%

Method Blank Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv.
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK122-MB	KK002379.D	1	05/20/02	RM	n/a	n/a	GKK122

The QC reported here applies to the following samples: Method: SW846 8021B

T2695-6, T2695-7

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	86%	63-123%
98-08-8	aaa-Trifluorotoluene	97%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv.
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2695-3AMS	F0049312.D	20	05/30/02	BC	n/a	n/a	VF451
T2695-3AMSD	F0049313.D	20	05/30/02	BC	n/a	n/a	VF451
T2695-3A	F0049311.D	20	05/30/02	BC	05/28/02	OP1028	VF451

The QC reported here applies to the following samples: Method: SW846 8260B

T2695-2A, T2695-3A

CAS No.	Compound	T2695-3A ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	194		500	729	107	713	104	2	47-141/16
108-90-7	Chlorobenzene	ND		500	504	101	487	97	3	66-131/15
67-66-3	Chloroform	ND		500	517	103	503	101	3	38-148/18
56-23-5	Carbon tetrachloride	ND		500	561	112	543	109	3	26-145/25
75-35-4	1,1-Dichloroethylene	ND		500	545	109	549	110		20-161/21
107-06-2	1,2-Dichloroethane	ND		500	494	99	488	98	1	37-158/15
78-93-3	Methyl ethyl ketone	ND		2500	2470	99	2540	102	3	12-178/18
127-18-4	Tetrachloroethylene	ND		500	559	112	526	105	6	20-133/15
79-01-6	Trichloroethylene	ND		500	540	108	531	106	2	40-152/18
75-01-4	Vinyl chloride	ND		500	508	102	539	108	6	16-148/51

CAS No.	Surrogate Recoveries	MS	MSD	T2695-3A	Limits
1868-53-7	Dibromofluoromethane	103%	101%	102%	86-118%
17060-07-0	1,2-Dichloroethane-D4	101%	99%	103%	80-120%
2037-26-5	Toluene-D8	99%	99%	98%	88-110%
460-00-4	4-Bromofluorobenzene	96%	101%	100%	86-115%

Leachate Blank Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv.
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1028-MB	F0049265.D	20	05/29/02	BC	05/28/02	OP1028	VF451

The QC reported here applies to the following samples: Method: SW846 8260B

T2695-2A, T2695-3A

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	100	ug/l	
108-90-7	Chlorobenzene	ND	100	ug/l	
67-66-3	Chloroform	ND	100	ug/l	
56-23-5	Carbon tetrachloride	ND	100	ug/l	
75-35-4	1,1-Dichloroethylene	ND	100	ug/l	
107-06-2	1,2-Dichloroethane	ND	100	ug/l	
78-93-3	Methyl ethyl ketone	ND	200	ug/l	
127-18-4	Tetrachloroethylene	ND	100	ug/l	
79-01-6	Trichloroethylene	ND	100	ug/l	
75-01-4	Vinyl chloride	ND	100	ug/l	

CAS No.	Surrogate Recoveries		limits
1868-53-7	Dibromofluoromethane	102%	86-1 8%
17060-07-0	1,2-Dichloroethane-D4	101%	80-1 :0%
2037-26-5	Toluene-D8	98%	88-1 0%
460-00-4	4-Bromofluorobenzene	107%	86-1 5%

Blank Spike Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1028-BS	F0049264.D	20	05/29/02	BC	05/28/02	OP1028	VF451

The QC reported here applies to the following samples: Method: SW846 8260B

T2695-2A, T2695-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	500	504	101	74-138
108-90-7	Chlorobenzene	500	463	93	72-131
67-66-3	Chloroform	500	481	96	66-133
56-23-5	Carbon tetrachloride	500	496	99	58-141
75-35-4	1,1-Dichloroethylene	500	526	105	60-143
107-06-2	1,2-Dichloroethane	500	446	89	64-129
78-93-3	Methyl ethyl ketone	2500	2040	82	50-151
127-18-4	Tetrachloroethylene	500	497	99	75-126
79-01-6	Trichloroethylene	500	487	97	72-128
75-01-4	Vinyl chloride	500	828	166* [a]	61-125

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	86-118%
17060-07-0	1,2-Dichloroethane-D4	99%	80-120%
2037-26-5	Toluene-D8	100%	88-110%
460-00-4	4-Bromofluorobenzene	101%	86-115%

(a) Outside control limits but not detected in the samples.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1027-MS	A01784.D	1	05/28/02	SC	05/28/02	OP1027	EA327
OP1027-MSD	A01785.D	1	05/28/02	SC	05/28/02	OP1027	EA327
T2695-2A	A01782.D	1	05/28/02	SC	05/28/02	OP1027	EA327

The QC reported here applies to the following samples: Method: SW846 8270C

T2695-2A, T2695-3A

CAS No.	Compound	T2695-2A ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	ND		500	353	71	336	67	5	10-126/30
	3&4-Methylphenol	ND		1000	655	66	656	66	0	10-149/44
87-86-5	Pentachlorophenol	ND		500	488	98	516	103	6	10-181/44
95-95-4	2,4,5-Trichlorophenol	ND		500	433	87	439	88	1	12-140/40
88-06-2	2,4,6-Trichlorophenol	ND		500	392	78	410	82	4	11-139/38
106-46-7	1,4-Dichlorobenzene	ND		500	278	56	272	54	2	10-125/58
121-14-2	2,4-Dinitrotoluene	ND		500	433	87	459	92	6	11-125/39
118-74-1	Hexachlorobenzene	ND		500	465	93	468	94	1	42-125/33
87-68-3	Hexachlorobutadiene	ND		500	207	41	196	39	5	16-125/57
67-72-1	Hexachloroethane	ND		500	267	53	259	52	3	10-125/56
98-95-3	Nitrobenzene	ND		500	413	83	428	86	4	12-125/42
110-86-1	Pyridine	ND		500	234	47	217	43	8	10-125/67

CAS No.	Surrogate Recoveries	MS		MSD	T2695-2A		Limits
367-12-4	2-Fluorophenol	45%		46%	51%		21-100%
4165-62-2	Phenol-d5	32%		31%	31%		10-94%
118-79-6	2,4,6-Tribromophenol	91%		95%	94%		10-123%
4165-60-0	Nitrobenzene-d5	86%		89%	91%		35-114%
321-60-8	2-Fluorobiphenyl	90%		92%	92%		43-116%
1718-51-0	Terphenyl-d14	73%		70%	93%		33-141%

Leachate Blank Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1027-LB	A01781.D	1	05/28/02	SC	05/28/02	OP1027	EA327

The QC reported here applies to the following samples: Method: SW846 8270C

T2695-2A, T2695-3A

CAS No.	Compound	Result	RL	Units	Q
95-48-7	2-Methylphenol	ND	50	ug/l	
	3&4-Methylphenol	ND	50	ug/l	
87-86-5	Pentachlorophenol	ND	250	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	50	ug/l	
118-74-1	Hexachlorobenzene	ND	50	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	ug/l	
67-72-1	Hexachloroethane	ND	50	ug/l	
98-95-3	Nitrobenzene	ND	50	ug/l	
110-86-1	Pyridine	ND	50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	21-100%
4165-62-2	Phenol-d5	32%	10-94%
118-79-6	2,4,6-Tribromophenol	81%	10-123%
4165-60-0	Nitrobenzene-d5	86%	35-114%
321-60-8	2-Fluorobiphenyl	91%	43-116%
1718-51-0	Terphenyl-d14	83%	33-141%

Duplicate Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1027-DUP	A01786.D	1	05/28/02	SC	05/28/02	OP1027	EA327
T2695-2A	A01782.D	1	05/28/02	SC	05/28/02	OP1027	EA327

The QC reported here applies to the following samples: Method: SW846 8270C

T2695-2A, T2695-3A

CAS No.	Compound	T2695-2A ug/l	Q	DUP ug/l	Q	RPD	Limits
95-48-7	2-Methylphenol	ND		ND		nc	30
	3&4-Methylphenol	ND		ND		nc	44
87-86-5	Pentachlorophenol	ND		ND		nc	44
95-95-4	2,4,5-Trichlorophenol	ND		ND		nc	40
88-06-2	2,4,6-Trichlorophenol	ND		ND		nc	43
106-46-7	1,4-Dichlorobenzene	ND		ND		nc	58
121-14-2	2,4-Dinitrotoluene	ND		ND		nc	39
118-74-1	Hexachlorobenzene	ND		ND		nc	33
87-68-3	Hexachlorobutadiene	ND		ND		nc	57
67-72-1	Hexachloroethane	ND		ND		nc	56
98-95-3	Nitrobenzene	ND		ND		nc	42
110-86-1	Pyridine	ND		ND		nc	67

CAS No.	Surrogate Recoveries	DUP	T2695-2A	Limits
367-12-4	2-Fluorophenol	37%	51%	21-100%
4165-62-2	Phenol-d5	25%	31%	10-94%
118-79-6	2,4,6-Tribromophenol	71%	94%	10-123%
4165-60-0	Nitrobenzene-d5	67%	91%	35-114%
321-60-8	2-Fluorobiphenyl	72%	92%	43-116%
1718-51-0	Terphenyl-d14	68%	93%	33-141%

Blank Spike Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv.
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP1027-BS	A01780.D	1	05/28/02	SC	05/28/02	OP1027	EA327

The QC reported here applies to the following samples: Method: SW846 8270C

T2695-2A, T2695-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	377	75	26-125
	3&4-Methylphenol	1000	759	76	20-151
87-86-5	Pentachlorophenol	500	429	86	10-144
95-95-4	2,4,5-Trichlorophenol	500	454	91	39-125
88-06-2	2,4,6-Trichlorophenol	500	436	87	43-125
106-46-7	1,4-Dichlorobenzene	500	330	66	10-125
121-14-2	2,4-Dinitrotoluene	500	461	92	21-140
118-74-1	Hexachlorobenzene	500	533	107	43-125
87-68-3	Hexachlorobutadiene	500	268	54	10-125
67-72-1	Hexachloroethane	500	308	62	10-125
98-95-3	Nitrobenzene	500	466	93	26-125
110-86-1	Pyridine	500	240	48	10-125

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	61%	21-100%
4165-62-2	Phenol-d5	45%	10-94%
118-79-6	2,4,6-Tribromophenol	98%	10-123%
4165-60-0	Nitrobenzene-d5	97%	35-114%
321-60-8	2-Fluorobiphenyl	100%	43-116%
1718-51-0	Terphenyl-d14	88%	33-141%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv.
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2698-18MS	KK002448.D	50	05/23/02	RM	n/a	n/a	GKK125
T2698-18MSD	KK002449.D	50	05/23/02	RM	n/a	n/a	GKK125
T2698-18	KK002447.D	50	05/23/02	RM	n/a	n/a	GKK125

The QC reported here applies to the following samples: Method: SW846 8021B

T2695-2, T2695-3, T2695-4, T2695-5

CAS No.	Compound	T2698-18 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		1270	1150	91	1110	87	4	42-146/30
100-41-4	Ethylbenzene	ND		1270	1190	94	1140	90	4	40-140/34
108-88-3	Toluene	ND		1270	1130	89	1090	86	4	55-125/25
1330-20-7	Xylenes (total)	ND		3810	3470	91	3330	87	4	46-137/35

CAS No.	Surrogate Recoveries	MS	MSD	T2698-18	Limits
460-00-4	4-Bromofluorobenzene	99%	93%	77%	66-141%
98-08-8	aaa-Trifluorotoluene	101%	94%	88%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv.
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T2695-6MS	KK002391.D	1	05/20/02	RM	n/a	n/a	GKK122
T2695-6MSD	KK002392.D	1	05/20/02	RM	n/a	n/a	GKK122
T2695-6	KK002390.D	1	05/20/02	RM	n/a	n/a	GKK122

The QC reported here applies to the following samples: Method: SW846 8021B

T2695-6, T2695-7

CAS No.	Compound	T2695-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	18.0	90	17.7	89	2	32-128/33
100-41-4	Ethylbenzene	ND		20	18.5	93	18.2	91	2	41-133/37
108-88-3	Toluene	ND		20	17.8	89	17.5	88	2	37-129/36
1330-20-7	Xylenes (total)	ND		60	53.8	90	52.5	88	2	46-128/25

CAS No.	Surrogate Recoveries	MS	MSD	T2695-6	Limits
460-00-4	4-Bromofluorobenzene	94%	93%	85%	63-123%
98-08-8	aaa-Trifluorotoluene	97%	98%	97%	70-130%

Method Blank Summary

Job Number: T2695
Account: DYNAMDGE Dynamac Corporation Environmental Serv
Project: I&W Hot Oil

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK125-MB	KK002446.D	50	05/23/02	RM	n/a	n/a	GKK125

The QC reported here applies to the following samples: Method: SW846 8021B

T2695-2, T2695-3, T2695-4, T2695-5

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	50	ug/kg	
100-41-4	Ethylbenzene	ND	50	ug/kg	
108-88-3	Toluene	ND	50	ug/kg	
1330-20-7	Xylenes (total)	ND	150	ug/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	88%	66-141%
98-08-8	aaa-Trifluorotoluene	99%	70-130%

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP948
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/17/02

Metal	RL	IDL	MB raw	final
Aluminum	10	.4		
Antimony	0.50	.07		
Arsenic	1.0	.06	0.085	<1.0
Barium	0.50	.01	0.029	<0.50
Beryllium	0.50	.02		
Boron	25	.2		
Cadmium	0.50	.02	0.023	<0.50
Calcium	50	.45		
Chromium	1.5	.05	0.047	<1.5
Cobalt	0.50	.025		
Copper	1.0	.05		
Iron	15	.7		
Lead	0.50	.07	0.049	<0.50
Lithium	0.50	.02		
Magnesium	50	.2		
Manganese	1.5	.015		
Molybdenum	1.0	.05		
Nickel	2.0	.065		
Potassium	50	.45		
Selenium	0.50	.085	-0.050	<0.50
Silicon	60	.35		
Silver	1.0	.03	-0.0090	<1.0
Sodium	50	.4		
Strontium	0.50	.005		
Thallium	0.50	.1		
Titanium	0.50	.02		
Uranium	5.3	.22		
Vanadium	0.50	.025		
Zinc	1.0	.025		

Associated samples MP948: T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP948
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:			05/17/02					05/17/02	
Metal	T2652-1 Original	DUP	RPD	QC Limits	T2652-1 Original	MS	Spikelot MPTS1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	6.4	6.4	0.0	0-20	6.4	57.2	51.2	99.1	75-125
Barium	269	285	5.8	0-20	269	318	51.2	95.6	75-125
Beryllium									
Boron									
Cadmium	0.57	0.55	3.6	0-20	0.57	47.0	51.2	90.6	75-125
Calcium									
Chromium	11.0	12.8	15.1	0-20	11.0	57.8	51.2	91.3	75-125
Cobalt									
Copper									
Iron									
Lead	78.2	65.9	17.1	0-20	78.2	114	51.2	69.9N(b)	75-125
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	0.51	0.75	38.1 (a)	0-20	0.51	44.8	51.2	86.4	75-125
Silicon									
Silver	0.0	0.0	NC	0-20	0.0	18.8	20.5	91.7	75-125
Sodium									
Strontium									
Thallium									
Titanium									
Uranium									
Vanadium									
Zinc									

Associated samples MP948: T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) Post-spike recovery for Pb(T2652-1):90.8%

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP948
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date: 05/17/02

Metal	BSP Result	Spikelot MPTS1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	53.2	50	106.4	80-120
Barium	52.8	50	105.6	80-120
Beryllium				
Boron				
Cadmium	53.2	50	106.4	80-120
Calcium				
Chromium	52.2	50	104.4	80-120
Cobalt				
Copper				
Iron				
Lead	50.3	50	100.6	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	46.6	50	93.2	80-120
Silicon				
Silver	19.9	20	99.5	80-120
Sodium				
Strontium				
Thallium				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP948: T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP948
Matrix Type: SOLID

Methods: SW846 6010B
Units: ug/l

Prep Date:			05/17/02				05/17/02	
Metal	T2652-1 Original	SDL 1:5	RPD	QC Limits	T2658-1 Original	SDL 1:5	RPD	QC Limits
Aluminum								
Antimony								
Arsenic	125	135	8.0	0-10	35.5	40.6	14.4 (b)	0-10
Barium	5280	6010	13.8*(a)	0-10	1110	1250	12.5*(a)	0-10
Beryllium								
Boron								
Cadmium	11.2	14.2	26.6 (b)	0-10	0.840	0.00	100.0(b)	0-10
Calcium								
Chromium	215	243	12.6*(a)	0-10	114	122	6.4	0-10
Cobalt								
Copper								
Iron								
Lead	1530	1770	15.6*(a)	0-10	137	152	10.6*(a)	0-10
Lithium								
Magnesium								
Manganese								
Molybdenum								
Nickel								
Potassium								
Selenium	10.0	13.1	30.8 (b)	0-10	8.93	0.00	100.0(b)	0-10
Silicon								
Silver	0.00	0.00	NC	0-10	0.00	0.00	NC	0-10
Sodium								
Strontium								
Thallium								
Titanium								
Uranium								
Vanadium								
Zinc								

Associated samples MP948: T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP948
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:				05/17/02				05/17/02	
Metal	T2652-1 Original	MSD	Spikelot MPTS1	% Rec	QC Limits	T2658-1 Original	DUP	RPD	QC Limits
Aluminum									
Antimony									
Arsenic	6.4	54.5	51.2	93.9	75-125	2.0	5.2	88.9*(a)	0-20
Barium	269	330	51.2	119.1	75-125	62.4	44.8	32.8*(a)	0-20
Beryllium									
Boron									
Cadmium	0.57	47.3	51.2	91.2	75-125	0.047	0.0	200.0(b)	0-20
Calcium									
Chromium	11.0	59.2	51.2	94.1	75-125	6.4	8.4	27.0*(a)	0-20
Cobalt									
Copper									
Iron									
Lead	78.2	123	51.2	87.4	75-125	7.7	9.7	23.0*(a)	0-20
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	0.51	44.2	51.2	85.3	75-125	0.50	1.2	82.4*(a)	0-20
Silicon									
Silver	0.0	18.7	20.5	91.2	75-125	0.0	0.0	NC	0-20
Sodium									
Strontium									
Thallium									
Titanium									
Uranium									
Vanadium									
Zinc									

Associated samples MP948: T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) High RPD due to possible sample nonhomogeneity.
(b) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP948
Matrix Type: SOLID

Methods: SW846 6010B
Units: mg/kg

Prep Date:				05/17/02					05/17/02	
Metal	T2658-1 Original	MS	Spikelot MPTS1	% Rec	QC Limits	T2658-1 Original	MSD	Spikelot MPTS1	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic	2.0	54.0	56.2	92.6	75-125	2.0	55.4	55.6	96.0	75-125
Barium	62.4	79.6	56.2	30.6N(a)	75-125	62.4	75.5	55.6	23.6N(a)	75-125
Beryllium										
Boron										
Cadmium	0.047	56.1	56.2	99.8	75-125	0.047	56.6	55.6	101.7	75-125
Calcium										
Chromium	6.4	61.2	56.2	97.6	75-125	6.4	62.2	55.6	100.4	75-125
Cobalt										
Copper										
Iron										
Lead	7.7	66.9	56.2	105.4	75-125	7.7	59.5	55.6	93.2	75-125
Lithium										
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	0.50	48.2	56.2	84.9	75-125	0.50	49.3	55.6	87.8	75-125
Silicon										
Silver	0.0	20.8	22.5	92.6	75-125	0.0	21.0	22.2	94.4	75-125
Sodium										
Strontium										
Thallium										
Titanium										
Uranium										
Vanadium										
Zinc										

Associated samples MP948: T2695-1, T2695-2, T2695-3, T2695-4, T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Post-spike recovery for Ba(T2658-1):99.8%

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP967
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02

Metal	RL	IDL	MB raw	final
Mercury	0.067	.01	0.028	<0.067

Associated samples MP967: T2695-1, T2695-2, T2695-3, T2695-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP967
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02 05/29/02

Metal	T2670-4 Original	DUP	RPD	QC Limits	T2670-4 Original	MS	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.039	0.040	2.5	0-20	0.039	2.1	2	105.3	75-125

Associated samples MP967: T2695-1, T2695-2, T2695-3, T2695-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP967
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02

Metal	BSP Result	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	1.7	1.7	102.0	80-120

Associated samples MP967: T2695-1, T2695-2, T2695-3, T2695-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP967
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02

Metal	T2670-4 Original	MSD	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.039	2.1	2	105.3	75-125

Associated samples MP967: T2695-1, T2695-2, T2695-3, T2695-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP972
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 05/23/02

Metal	BSP Result	Spikelot MPTTC1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	5.1	5.0	102.0	80-120
Barium	0.41	0.40	102.5	80-120
Beryllium				
Boron				
Cadmium	0.41	0.40	102.5	80-120
Calcium				
Chromium	0.39	0.40	97.5	80-120
Cobalt				
Copper				
Iron				
Lead	5.1	5.0	102.0	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.99	1.0	99.0	80-120
Silicon				
Silver	0.39	0.40	97.5	80-120
Sodium				
Strontium				
Thallium				
Titanium				
Vanadium				
Zinc				

Associated samples MP972: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP972
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 05/23/02

Metal	T2695-2A Original	MSD	Spikelot MPTTC1	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.30	4.4	5.0	82.0	75-125
Barium	0.36	0.62	0.40	65.0N(a)	75-125
Beryllium					
Boron					
Cadmium	0.0	0.33	0.40	82.5	75-125
Calcium					
Chromium	0.0	0.32	0.40	80.0	75-125
Cobalt					
Copper					
Iron					
Lead	0.0	4.1	5.0	82.0	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	0.0	0.80	1.0	80.0	75-125
Silicon					
Silver	0.0	0.31	0.40	77.5	75-125
Sodium					
Strontium					
Thallium					
Titanium					
Vanadium					
Zinc					

Associated samples MP972: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike recovery indicates possible matrix interference. Post-spike recovery for Ba(T2695-2A):98.3%

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP968
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02 05/29/02

Metal	T2677-20 Original	DUP	RPD	QC Limits	T2677-20 Original	MS	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-20	0.0	2.2	2.1	103.1	75-125

Associated samples MP968: T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP968
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02

Metal	RL	IDL	MB raw	final
Mercury	0.067	.01	0.025	<0.067

Associated samples MP968: T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP972
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Metal	T2695-2A Original	DUP	RPD	QC Limits	T2695-2A Original	MS	Spikelot MPTTC1	% Rec	QC Limits
Prep Date:			05/23/02					05/23/02	
Aluminum									
Antimony									
Arsenic	0.30	0.46	42.1*(a)	0-20	0.30	4.5	5.0	84.0	75-125
Barium	0.36	0.25	36.1*	0-20	0.36	0.63	0.40	67.5N(c)	75-125
Beryllium									
Boron									
Cadmium	0.0	0.0	NC	0-20	0.0	0.33	0.40	82.5	75-125
Calcium									
Chromium	0.0	0.0	NC	0-20	0.0	0.32	0.40	80.0	75-125
Cobalt									
Copper									
Iron									
Lead	0.0	0.029	200.0(b)	0-20	0.0	4.1	5.0	82.0	75-125
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium	0.0	0.0	NC	0-20	0.0	0.83	1.0	83.0	75-125
Silicon									
Silver	0.0	0.0	NC	0-20	0.0	0.32	0.40	80.0	75-125
Sodium									
Strontium									
Thallium									
Titanium									
Vanadium									
Zinc									

Associated samples MP972: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) High RPD due to possible sample nonhomogeneity. Actual extraction duplicate.
(b) RPD acceptable due to low duplicate and sample concentrations.
(c) Spike recovery indicates possible matrix interference. Post-spike recovery for Ba(T2695-2A):98.3%

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP972
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: mg/l

Prep Date: 05/23/02

Metal	RL	IDL	MB raw	final
Aluminum	2.0	.08		
Antimony	0.10	.014		
Arsenic	0.10	.012	0.0036	<0.10
Barium	0.10	.002	0.015	<0.10
Beryllium	0.10	.004		
Boron	5.0	.04		
Cadmium	0.040	.004	0.000060	<0.040
Calcium	10	.09		
Chromium	0.10	.01	-0.0051	<0.10
Cobalt	0.10	.005		
Copper	0.20	.01		
Iron	3.0	.14		
Lead	0.10	.014	0.012	<0.10
Lithium	0.10	.004		
Magnesium	10	.04		
Manganese	0.30	.003		
Molybdenum	0.20	.01		
Nickel	0.40	.013		
Potassium	10	.09		
Selenium	0.10	.017	-0.000050	<0.10
Silicon	12	.07		
Silver	0.050	.006	-0.0088	<0.050
Sodium	10	.08		
Strontium	0.10	.001		
Thallium	0.10	.02		
Titanium	0.10	.004		
Vanadium	0.10	.005		
Zinc	0.20	.005		

Associated samples MP972: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP968
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02

Metal	BSP Result	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	1.8	1.7	108.0	80-120

Associated samples MP968: T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP968
Matrix Type: SOLID

Methods: SW846 7471A
Units: mg/kg

Prep Date: 05/29/02

Metal	T2677-20 Original	MSD	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.0	2.2	2.1	104.8	75-125

Associated samples MP968: T2695-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP980
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/29/02

Metal	T2695-2A Original	MSD	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.0011	0.094	0.10	92.9	75-125

Associated samples MP980: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP980
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/29/02 05/29/02

Metal	T2695-2A Original	DUP	RPD	QC Limits	T2695-2A Original	MS	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.0011	0.0023	70.6 (a)	0-20	0.0011	0.095	0.10	93.9	75-125

Associated samples MP980: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) RPD acceptable due to low duplicate and sample concentrations.

SPEEDIE AND ASSOCIATES
GEOTECHNICAL / ENVIRONMENTAL / MATERIALS ENGINEERS
3331 E. WOOD STREET • PHOENIX, ARIZONA 85040

LABORATORY REPORT

Physical Properties of Soils and Aggregates

Client:	Dynamac Corporation	Project No.	020542LA
ATTN:	Bryan Frey	Lab No.	121648
	20440 Century Blvd., # 100	Field No.	N/A
	Germantown, Maryland 20874	Report Date:	05-22-02

Project:	I&W Hot Oil Service South				
Location:	Southeastern New Mexico				
Material:	Light Reddish Silty Sand	Sampled By:	Client	Date	05-14-02
Source:	Native	Submitted By:	Fed Ex	Date	05-16-02
Supplier:	N/A	Authorized By:	Client	Date	05-16-02
Sample Location:	IW-GT-4				

SIEVE ANALYSIS - ASTM C136

Sieve Size	Cumulative % Passing	Specification Limits
6"	100	
3"	100	
21/2"	100	
2"	100	
11/2"	100	
1"	100	
3/4"	100	
1/2"	100	
3/8"	100	
1/4"	100	
#4	100	
#8	100	
#10	100	
#16	99	
#30	99	
#40	99	
#50	93	
#100	44	
#200	17.7	

ADDITIONAL TESTING

PHYSICAL PROPERTIES	TEST RESULTS	SPECIFICATION LIMITS
LIQUID & PLASTIC PROPERTIES; ASTM D4318		
Liquid Limit	N/A	
Plastic Limit	Non-Plastic	
Plasticity Index	Non-Plastic	
MOISTURE CONTENT; ASTM D2216	1.4%	
SOIL CLASSIFICATION; ASTM D2487	SM	

Comments:

Copies to: Addressee (1)

Laboratory test results reported herein apply only to the specific sample on which the test was run. The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between SA and client. SA warrants that this work was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either express or implied is included or intended.

Reviewed by _____
Laboratory Manager

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP980
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/29/02

Metal	RL	IDL	MB raw	final
Mercury	0.0020	.0006	0.0010	<0.0020

Associated samples MP980: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP972
Matrix Type: LEACHATE

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/23/02

Metal	T2695-2A Original	SDL 10:10	RPD	QC Limits
Aluminum				
Antimony				
Arsenic	304	83.4	72.5 (a)	0-10
Barium	365	74.9	79.5*(b)	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Titanium				
Vanadium				
Zinc				

Associated samples MP972: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

SPEEDIE AND ASSOCIATES
GEOTECHNICAL / ENVIRONMENTAL / MATERIALS ENGINEERS
3331 E. WOOD STREET • PHOENIX, ARIZONA 85040

LABORATORY REPORT

Physical Properties of Soils and Aggregates

Client: Dynamac Corporation
ATTN: Bryan Frey
20440 Century Blvd., # 100
Germantown, Maryland 20874

Project No. 020542LA
Lab No. 121647
Field No. N/A
Report Date: 05-22-02

Project: I&W Hot Oil Service South
Location: Southeastern New Mexico
Material: Light Reddish Silty Sand — Sampled By: Client — Date 05-14-02
Source: Native — Submitted By: Fed Ex — Date 05-16-02
Supplier: N/A — Authorized By: Client — Date 05-16-02
Sample Location: IW-GT-3

SIEVE ANALYSIS - ASTM C136

Sieve Size	Cumulative % Passing	Specification Limits
6"	100	
3"	100	
21/2"	100	
2"	100	
11/2"	100	
1"	100	
3/4"	100	
1/2"	100	
3/8"	100	
1/4"	100	
#4	99	
#8	99	
#10	99	
#16	99	
#30	98	
#40	98	
#50	93	
#100	41	
#200	12.9	

ADDITIONAL TESTING

PHYSICAL PROPERTIES	TEST RESULTS	SPECIFICATION LIMITS
LIQUID & PLASTIC PROPERTIES; ASTM D4318		
Liquid Limit	N/A	
Plastic Limit	Non-Plastic	
Plasticity Index	Non-Plastic	
MOISTURE CONTENT; ASTM D2216	0.9%	
SOIL CLASSIFICATION; ASTM D2487	SM	

Comments:

Copies to: Addressee (1)

Laboratory test results reported herein apply only to the specific sample on which the test was run. The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between SA and client. SA warrants that this work was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either express or implied is included or intended.

Reviewed by _____
Laboratory Manager

SPEEDIE AND ASSOCIATES
GEOTECHNICAL / ENVIRONMENTAL / MATERIALS ENGINEERS
3331 E. WOOD STREET • PHOENIX, ARIZONA 85040

LABORATORY REPORT

Physical Properties of Soils and Aggregates

Client:	Dynamac Corporation	Project No.	020542LA
ATTN:	Bryan Frey	Lab No.	121646
	20440 Century Blvd., # 100	Field No.	N/A
	Germantown, Maryland 20874	Report Date:	05-22-02

Project:	I&W Hot Oil Service South				
Location:	Southeastern New Mexico				
Material:	Light Brown Silty Sand	Sampled By:	Client	Date	05-14-02
Source:	Native	Submitted By:	Fed Ex	Date	05-16-02
Supplier:	N/A	Authorized By:	Client	Date	05-16-02
Sample Location:	IW2-GT-2				

SIEVE ANALYSIS - ASTM C136

Sieve Size	Cumulative % Passing	Specification Limits
6"	100	
3"	100	
21/2"	100	
2"	100	
11/2"	100	
1"	100	
3/4"	100	
1/2"	100	
3/8"	98	
1/4"	95	
#4	93	
#8	91	
#10	90	
#16	89	
#30	88	
#40	87	
#50	82	
#100	41	
#200	19.3	

ADDITIONAL TESTING

PHYSICAL PROPERTIES	TEST RESULTS	SPECIFICATION LIMITS
LIQUID & PLASTIC PROPERTIES; ASTM D4318		
Liquid Limit	N/A	
Plastic Limit	Non-Plastic	
Plasticity Index	Non-Plastic	
MOISTURE CONTENT; ASTM D2216	1.6%	
SOIL CLASSIFICATION; ASTM D2487	SM	

Comments:

Copies to: Addressee (1)

Laboratory test results reported herein apply only to the specific sample on which the test was run. The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between SA and client. SA warrants that this work was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either express or implied is included or intended.

Reviewed by _____
Laboratory Manager

SPEEDIE AND ASSOCIATES
GEOTECHNICAL / ENVIRONMENTAL / MATERIALS ENGINEERS
3331 E. WOOD STREET • PHOENIX, ARIZONA 85040

LABORATORY REPORT

Physical Properties of Soils and Aggregates

Client:	Dynamac Corporation	Project No.	020542LA
ATTN:	Bryan Frey	Lab No.	121645
	20440 Century Blvd., # 100	Field No.	N/A
	Germantown, Maryland 20874	Report Date:	05-21-02

Project:	I&W Hot Oil Service South				
Location:	Southeastern New Mexico				
Material:	Reddish Silty Sand	Sampled By:	Client	Date	05-14-02
Source:	Native	Submitted By:	Fed Ex	Date	05-16-02
Supplier:	N/A	Authorized By:	Client	Date	05-16-02
Sample Location:	IW2-GT-1				

SIEVE ANALYSIS - ASTM C136

Sieve Size	Cumulative % Passing	Specification Limits
6"	100	
3"	100	
21/2"	100	
2"	100	
11/2"	100	
1"	100	
3/4"	100	
1/2"	99	
3/8"	98	
1/4"	96	
#4	96	
#8	94	
#10	94	
#16	93	
#30	93	
#40	92	
#50	89	
#100	43	
#200	19.0	

ADDITIONAL TESTING

PHYSICAL PROPERTIES	TEST RESULTS	SPECIFICATION LIMITS
LIQUID & PLASTIC PROPERTIES; ASTM D4318		
Liquid Limit	N/A	
Plastic Limit	Non-Plastic	
Plasticity Index	Non-Plastic	
MOISTURE CONTENT; ASTM D2216	1.5%	
SOIL CLASSIFICATION; ASTM D2487	SM	

Comments:

Copies to: Addressee (1)

Laboratory test results reported herein apply only to the specific sample on which the test was run. The above services and report were performed pursuant to the terms and conditions of the agreement or proposal, if any, between SA and client. SA warrants that this work was performed under the appropriate standard of care, including the skill and judgement that is reasonably expected from similarly situated professionals. No other warranty, guaranty, or representation, either express or implied is included or intended.

Reviewed by _____
Laboratory Manager

Bryan Frey/Dynamic/BLM
20440 Century Blvd # 100
Germantown MD 20874

Colorado State University
Soil, Water and Plant Testing Laboratory
Natural & Environmental Sciences Bldg - A319
Fort Collins, CO 80523

(970) 491-5061 FAX: 491-2930

DATE RECEIVED: 05-16-2002
DATE REPORTED: 07-25-2002

BILLING:

RESEARCH SOIL ANALYSIS

Sampler Frey/Lacewell Proj Name 1 & W Hot Oil Proj # BLM4-82R

Lab #	Sample ID #	-------paste---------- pH	EC mmhos/cm	----------meq/L---------- Ca	Mg	Na	K	SAR	mg/L Alkalinity	----------%---------- OM	Total N
R5953	1W2-AG-1	7.9	0.4	3.1	0.4	0.5	0.2	0.4	98	0.4	0.002
R5954	1W2-AG-2	7.6	1.1	10.8	1.3	2.1	0.3	0.8	152	2.0	0.022
R5955	1W2-AG-3	8.0	0.3	2.9	0.2	0.4	0.2	0.3	121	0.5	0.004
R5956	1W2-AG-4	8.0	0.3	3.1	0.3	0.5	0.2	0.4	130	0.5	0.009

Analysis Request and Chain of Custody Record

ACCUTEST.
ACCUTEST LABORATORIES GULF COAST, INC.
10165 HARWIN DRIVE, SUITE 150 • HOUSTON, TEXAS 77036 • (713) 271-4700 • FAX (713) 271-4770

Project no.:

Client/Project: DYNAMAC / BLM / I&W HOT OIL

P.O.#:

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
1	IW2-WS-1	5/14/02 0835	✓		4oz glass X2	SOIL	4°C	RCRA METALS (6010), TPH (8015).	Only one 4oz rcvd
2	IW2-WS-2	5/14/02 0900	✓		4oz glass X5; 1x 8oz gl	SLUDGE		BTEX (8021), TPH (8015), PAH (8310), METALS (6010), TCLP (1311) EXTRACT, THEN METALS, VOA, SVOA	JT / MLSE VOA 22
3	IW-WS-1	5/14/02 1055	✓		↓	SLUDGE		BTEX (8021), PAH (8310), RCRA METALS (6010), TPH (8015) TCLP (1311) EXTRACT, THEN METALS, VOA, SVOA	
4	IW-WS-2	5/14/02 1130	✓		4oz glass X3	SOIL		BTEX (8021), METALS (6010), TPH (8015)	
5	IW-WS-3	5/14/02 1130	✓		↓	SOIL		BTEX (8021), RCRA METALS (6010), TPH (8015)	
6	FB-1	5/14/02 1150	✓		GLASS VOA vial	LIQUID ~~SOTEBR~~	HCl	BTEX (8021), TPH (8015)	4 x 40ml rcvd.
7	TB-1				↓	LIQUID	HCl	BTEX (8021), TPH (8015)	2 x 40ml rcvd.

Samplers: (Print)	Relinquished by: (Signature)	Date: 5/14/02 Time: 1500	Received by: (Signature) FED EX	Date: Time:	COC Seal No.
BRYAN FREY BROOKE LEVY	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:	REC'D. ON ICE Yes ✓ No ___
Affiliation: DYNAMAC	Relinquished by: (Signature)	Date: Time:	Received by Laboratory: (Signature)	Date: 5-15-02 Time: 09:00	Intact:
Results by 30 MAY 2002 Rush Charges Authorized Yes ___ No ✓	REMARKS: ANY QUESTIONS, PLEASE CALL BRYAN FREY - 240.778.1012		Data Results To: 1. BRYAN FREY 2.		Laboratory No. T2645

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T2695
Account: DYNAMDGE - Dynamac Corporation Environmental Serv.
Project: DYNAMDGE535 - I&W Hot Oil

QC Batch ID: MP980
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 05/29/02

Metal	BSP Result	Spikelot HGTXWS1	% Rec	QC Limits
Mercury	0.095	0.10	95.0	80-120

Associated samples MP980: T2695-2A, T2695-3A

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Kieling, Martyne

From: Kieling, Martyne
Sent: Tuesday, August 05, 2003 11:41 AM
To: Johnson, Larry
Subject: C-138

Larry,

Here is the C-138 for Artesia Aeration. It took me a while to look at it carefully and recall the initial work that was performed at that job site last year. I also called and talked to Lace Linkwell with the BLM Carlsbad office yesterday to answer the questions that I had.
There was one area of highest contamination in the center of the I&W South Site #2. It was sampled as location IW2-WS-2 which matches up with analytical numbers T2695-2 that was run for totals and T2695-2A run for TCLP. TCLP results show only Hazardous results for Benzene at 3.59. None of the other analysis for Totals were above Hazardous waste limits when divided by 20 except for IW-WS-1 location T2695-3 run for totals. This sample was also run for TCLP Lab ID number T2695-3A all results were less than Hazwaste regulatory limits.

When I spoke to Link he said that the area shown in RED in the original Figure 4: sample location map. shown by sample area IW2-WS-2 was recognized as Hazardous waste and would be going to Arkansas for disposal. All of the other contaminated material would be going to Artesia Aeration. He also mentioned that Larry Gandy (subcontractor) was collecting some additional samples at the site to aid in the hazardous waste delineation.

I have approved the waste contaminated soil to go to Artesia Aeration that is not in the Hazardous waste area that was sampled and analyzed and noted in RED or by IW2-WS-2.

see the attached Approval with Map and Analytical Tables.

080403-1.tif

Martyne J. Kieling
Martyne J. Kieling
Environmental Geologist

(1) LAB ID (1) T2695-3A metals TCLP OK SW846/1311 OK

2 Sludge (2) T2695-3A SVOC TCLP ND All 8270C 3510C OK

(3) 76.8% solid (3) ? VOC TCLP ND Benzene .194 8260B

Sludge (4) T2695-2A metals TCLP OK SW846/1311

67.6% Solids (5) T2695-2A SVOC TCLP ND 8270C/3510C

SO Sludge (6) T2695-2A VOC TCLP ND Benzene 3.59a Regulatory limit .5 Haz waste

67.6% Solids

Trip Blank ND BTEX

AQ water T2695-6

Soil SO- { metals T2695-5 Metals total X/20 = All Less than Haz waste Limit

T2695-5 BTEX ND

Soil SO-

Soil SO- { T2695-4 Metals Totals X/20 All Less than Haz waste limit.

T2695-4 BTEX ND

(1) So-Sludge T2695-3 metals total X/20 Allok except Pb at 146/20 = 7.3

(2) So-Sludge T2695-3 PAH ND Not Haz Listing 1-methylnaphthalene not on Haz list. 23,500 ug

(3) So Sludge T2695-3 ~~BTEX~~ 8.160 B Haz

76.8% 13.700 EB

9.160 X

So Sludge (4) T2695-2 Metals TOTAL

275/20 = Ar 13.7

124/20 = Pb 6.2

6 So Sludge T2695-2 PAH Not Haz Listing

(6) T2695-2 BTEX 70.600 Benzene

T2695-1 metals total Non Bear the 20x Dilution

7. The OCD must be notified prior to any design changes to the landfarm facility. The facility must submit for approval any design changes to the facility to the OCD Santa Fe office and Hobbs District office.

8. The OCD must be notified prior to the installation of any pipelines or wells or other construction within the boundaries of the facility.

FINANCIAL ASSURANCE

1. Financial assurance in the amount of **$25,000** in the form of a surety or cash bond or a letter of credit, which is approved by the Division, is required from Pitchfork Landfarm, L.L.C. for the commercial surface waste management facility.

   By April 28, 2003 Pitchfork Landfarm, L.L.C. must submit 100% of the financial assurance in the amount of **$ 25,000.**

2. The facility is subject to periodic inspections by the OCD. The conditions of this permit and the facility will be reviewed no later than five (5) years from the date of this approval. In addition, the closure cost estimate will be reviewed according to prices and remedial work estimates at the time of review. The financial assurance may be adjusted to incorporate any closure cost changes.

CLOSURE

1. The OCD Santa Fe and Hobbs offices must be notified when operation of the facility is to be discontinued for a period in excess of six (6) months or when the facility is to be dismantled. Within six (6) months after discontinuing use, or within 30 days of deciding to dismantle the facility, a closure plan must be submitted to the OCD Santa Fe office for approval. The operator must complete cleanup of constructed facilities and restoration of the facility site within six (6) months of receiving the closure plan approval, unless an extension of time is granted by the Director.

2. The closure plan to be submitted must include the following procedures:

   a. When the facility is to be closed no new material may be accepted.

   b. Existing landfarm soils must be remediated until they meet the OCD standards in effect at the time of closure.

   c. The treatment zone soils within each five (5) acre cell must be sampled at two (2) to three (3) feet below the native ground surface and must be analyzed for total petroleum hydrocarbons (TPH), volatile aromatic organics (BTEX), major cations/anions and Water Quality Control Commission (WQCC) metals.

   d. Contaminated soils exceeding OCD closure standards for the site must be removed or remediated.

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

State of New Mexico
Energy Minerals and Natural Resources

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

RECEIVED
AUG 0 1 2003
Environmental Bureau
Oil Conservation Division

Form C-138
Revised June 10, 2003

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☑ ☐ Verbal Approval Received: Yes ☐ No ☐	4. Generator NAVAJO REFINING 5. Originating Site PLANT YARD
2. Management Facility Destination ARTESIA AREATION	6. Transporter Jim Wilson Const. Co.
3. Address of Facility Operator Box 310 Hobbs N.M.	8. State N. M.
7. Location of Material (Street Address or ULSTR) MALJAMAR N.M.	

9. Circle One:

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

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

CONTAMINATED SOIL

GAS RACK 1
Sample 11154

GAS RACK 2
Sample 11155

RECEIVED
JUL 2003
Hobbs
OCD

Estimated Volume 1350 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE Jim Wil
Waste Management Facility Authorized Agent
TITLE: MANAGER DATE: 7/24/03

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 505-392-9575

E-MAIL ADDRESS _____

080103-2

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyn J. Kelly TITLE: Environmental Geologist DATE: 8-1-03

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: Contaminated soil

ESTIMATED VOLUME: 1350 **yards**

GENERATING PROCESS: Contaminated soil removed for building of a concrete foundation and expansion of our gasoline loading rack.

REMARKS: **Analysis enclosed**

NMOCD FACILITY: **Artesia Aeration**

TRUCKING COMPANY: D and J Waste, or Jim Wilson Const.

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA, NM 88210

DATE: 7/23/03

Summary Report

JUL 2003 RECEIVED Hobbs OCD

Charlie Plymale
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: July 8, 2003
Work Order: 3062419

Project Name: TCLP

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
11153	New Slurry Tank	soil	2003-06-17	11:00	2003-06-18
11154	Gas Rack 1	soil	2003-06-17	11:30	2003-06-18
11155	Gas Rack 2	soil	2003-06-17	11:40	2003-06-18

Sample: 11153 - New Slurry Tank

Param	Flag	Result	Units	RL
Reactivity		non-reactive		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		non-corrosive	mm/yr	0.00
pH		8.10	s.u.	0.00
Ignitability		non-ignitable		0.00
Pyridine		<0.0500	mg/L	10.0
1,4-Dichlorobenzene (para)		<0.0500	mg/L	10.0
o-Cresol		<0.0500	mg/L	10.0
m,p-Cresol		<0.0500	mg/L	10.0
Hexachloroethane		<0.0500	mg/L	10.0
Nitrobenzene		<0.0500	mg/L	10.0
Hexachlorobutadiene		<0.0500	mg/L	10.0
2,4,6-Trichlorophenol		<0.0500	mg/L	10.0
2,4,5-Trichlorophenol		<0.0500	mg/L	10.0
2,4-Dinitrotoluene		<0.0500	mg/L	10.0
2,4-Dichlorophenoxyacetic acid		<0.0500	mg/L	10.0
Hexachlorobenzene		<0.0500	mg/L	10.0
2,4,5-Trichlorophenoxyproprionic acid		<0.0500	mg/L	10.0
Pentachlorophenol		<0.0500	mg/L	10.0
TCLP Silver		<0.125	mg/L	0.125
TCLP Arsenic		0.313	mg/L	0.100
TCLP Barium		2.12	mg/L	0.100
TCLP Cadmium		<0.0500	mg/L	0.0500
TCLP Chromium		<0.100	mg/L	0.100
TCLP Mercury		<0.0100	mg/L	0.0100
TCLP Lead		0.652	mg/L	0.0370
TCLP Selenium		<0.500	mg/L	0.500

continued . . .

sample 11153 continued ...

Param	Flag	Result	Units	RL
Vinyl Chloride		<0.0500	mg/L	0.00100
1,1-Dichloroethene		<0.0500	mg/L	0.00100
2-Butanone (MEK)		<0.500	mg/L	0.0100
Chloroform		<0.0500	mg/L	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	0.00100
Benzene		<0.0500	mg/L	0.00100
Carbon Tetrachloride		<0.0500	mg/L	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	0.00100
Chlorobenzene		<0.0500	mg/L	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.00100

Sample: 11154 - Gas Rack 1

Param	Flag	Result	Units	RL
Reactivity		non-reactive		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		non-corrosive	mm/yr	0.00
pH		6.10	s.u.	0.00
Ignitability		non-ignitable		0.00
Pyridine		<0.0500	mg/L	10.0
1,4-Dichlorobenzene (para)		<0.0500	mg/L	10.0
o-Cresol		<0.0500	mg/L	10.0
m,p-Cresol		<0.0500	mg/L	10.0
Hexachloroethane		<0.0500	mg/L	10.0
Nitrobenzene		<0.0500	mg/L	10.0
Hexachlorobutadiene		<0.0500	mg/L	10.0
2,4,6-Trichlorophenol		<0.0500	mg/L	10.0
2,4,5-Trichlorophenol		<0.0500	mg/L	10.0
2,4-Dinitrotoluene		<0.0500	mg/L	10.0
2,4-Dichlorophenoxyacetic acid		<10.0	mg/L	10.0
Hexachlorobenzene		<0.0500	mg/L	10.0
2,4,5-Trichlorophenoxyproprionic acid		<10.0	mg/L	10.0
Pentachlorophenol		<0.0500	mg/L	10.0
TCLP Silver		<0.125	mg/L	0.125
TCLP Arsenic		0.237	mg/L	0.100
TCLP Barium		3.35	mg/L	0.100
TCLP Cadmium		<0.0500	mg/L	0.0500
TCLP Chromium		<0.100	mg/L	0.100
TCLP Mercury		<0.0100	mg/L	0.0100
TCLP Lead		0.0950	mg/L	0.0370
TCLP Selenium		0.577	mg/L	0.500
Vinyl Chloride		<0.0500	mg/L	0.00100
1,1-Dichloroethene		<0.0500	mg/L	0.00100
2-Butanone (MEK)		<0.500	mg/L	0.0100
Chloroform		<0.0500	mg/L	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	0.00100
Benzene		<0.0500	mg/L	0.00100
Carbon Tetrachloride		<0.0500	mg/L	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	0.00100

continued ...

sample 11154 continued ...

Param	Flag	Result	Units	RL
Chlorobenzene		<0.0500	mg/L	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.00100

Sample: 11155 - Gas Rack 2

Param	Flag	Result	Units	RL
Reactivity		non-reactive		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		non-corrosive	mm/yr	0.00
pH		7.90	s.u.	0.00
Ignitability		non-ignitable		0.00
Pyridine		<0.0500	mg/L	10.0
1,4-Dichlorobenzene (para)		<0.0500	mg/L	10.0
o-Cresol		<0.0500	mg/L	10.0
m,p-Cresol		<0.0500	mg/L	10.0
Hexachloroethane		<0.0500	mg/L	10.0
Nitrobenzene		<0.0500	mg/L	10.0
Hexachlorobutadiene		<0.0500	mg/L	10.0
2,4,6-Trichlorophenol		<0.0500	mg/L	10.0
2,4,5-Trichlorophenol		<0.0500	mg/L	10.0
2,4-Dinitrotoluene		<0.0500	mg/L	10.0
2,4-Dichlorophenoxyacetic acid		<0.0500	mg/L	10.0
Hexachlorobenzene		<0.0500	mg/L	10.0
2,4,5-Trichlorophenoxyproprionic acid		<0.0500	mg/L	10.0
Pentachlorophenol		<0.0500	mg/L	10.0
TCLP Silver		<0.125	mg/L	0.125
TCLP Arsenic		0.461	mg/L	0.100
TCLP Barium		2.63	mg/L	0.100
TCLP Cadmium		<0.0500	mg/L	0.0500
TCLP Chromium		<0.100	mg/L	0.100
TCLP Mercury		<0.0100	mg/L	0.0100
TCLP Lead		0.0920	mg/L	0.0370
TCLP Selenium		0.916	mg/L	0.500
Vinyl Chloride		<0.0500	mg/L	0.00100
1,1-Dichloroethene		<0.0500	mg/L	0.00100
2-Butanone (MEK)		<0.500	mg/L	0.0100
Chloroform		<0.0500	mg/L	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	0.00100
Benzene		0.0600	mg/L	0.00100
Carbon Tetrachloride		<0.0500	mg/L	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	0.00100
Chlorobenzene		<0.0500	mg/L	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.00100

11153-55

Page ___ of ___

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

TraceAnalysis, Inc.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3062419

Company Name: NAVAJO
Phone #:
Address: (Street, City, Zip) 501 S Main
Fax #:
Contact Person: Charlie Plymale
Invoice to: (if different from above)
Project #:
Project Name: MULT TCLP
Project Location:
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
11153	New Sludge Tank	1	1L		X		X					X	X	6/17/03	1100						X	X	X		X											
54	Gas Kack 1	1	1L		X							X	X	6/17/03	1130						X	X	X		X											
55	Gas Kack 2	1	1L		X							X	X	6/17/03	1140						X	X	X		X											

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	6/17/03	1615			
			Received at Laboratory by: [signature]	6-18-03	

LAB USE ONLY
Inject Y / N
Headspace Y / N
Temp
Log-in Review

REMARKS:

☐ Check if Special Reporting Limits Are Needed

Carrier #

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

CHART COPY

08/24/2003 TUE 09:28 FAX 505 746 6283 NAVAJO D/O DEPT

07/07/2003 16:37 8067941298 TRACEANALYSIS PAGE 04

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

RECEIVED
AUG 0 1 2003
Environmental Bureau
Oil Conservation Division

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

AUG 1 2003

Form C-138
Revised June 10, 2003

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☑
   ☐ Verbal Approval Received: Yes ☐ No ☐
2. Management Facility Destination: Artesia Aeration
3. Address of Facility Operator: Box 310 Hobbs N.M. 88240
7. Location of Material (Street Address or ULSTR): Maljamar N.M.
4. Generator: Navajo Refining
5. Originating Site: Plant Yard - Artesia N.
6. Transporter: Jim Wilson Const. Co.
8. State: N.M.
9. Circle One:
   A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
   B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil

New Slurry Tank
Sample 11153

JUL 2003
Hobbs OCD

Estimated Volume 350 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE Jim Wilson TITLE: Manager DATE: 7/24/03
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 505-392-9575

E-MAIL ADDRESS _____

080103-

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyn [illegible] TITLE: Environmental Geologist DATE: 8-1-03

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: Contaminated soil

ESTIMATED VOLUME: 350 **yards**

GENERATING PROCESS: Contaminated soil removed for building of a concrete foundation for a new tank for our slurry oil near our Carbon Black Oil loading rack.

REMARKS: **Analysis enclosed**

NMOCD FACILITY: **Artesia Aeration**

TRUCKING COMPANY: D and J Waste, or Jim Wilson Const.

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA, NM 88210

DATE: 7/23/03

Summary Report

JUL 2003 RECEIVED Hobbs OCD

Charlie Plymale
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: July 8, 2003
Work Order: 3062419

Project Name: TCLP

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
11153	New Slurry Tank	soil	2003-06-17	11:00	2003-06-18
11154	Gas Rack 1	soil	2003-06-17	11:30	2003-06-18
11155	Gas Rack 2	soil	2003-06-17	11:40	2003-06-18

Sample: 11153 - New Slurry Tank

Param	Flag	Result	Units	RL
Reactivity		non-reactive		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		non-corrosive	mm/yr	0.00
pH		8.10	s.u.	0.00
Ignitability		non-ignitable		0.00
Pyridine		<0.0500	mg/L	10.0
1,4-Dichlorobenzene (para)		<0.0500	mg/L	10.0
o-Cresol		<0.0500	mg/L	10.0
m,p-Cresol		<0.0500	mg/L	10.0
Hexachloroethane		<0.0500	mg/L	10.0
Nitrobenzene		<0.0500	mg/L	10.0
Hexachlorobutadiene		<0.0500	mg/L	10.0
2,4,6-Trichlorophenol		<0.0500	mg/L	10.0
2,4,5-Trichlorophenol		<0.0500	mg/L	10.0
2,4-Dinitrotoluene		<0.0500	mg/L	10.0
2,4-Dichlorophenoxyacetic acid		<0.0500	mg/L	10.0
Hexachlorobenzene		<0.0500	mg/L	10.0
2,4,5-Trichlorophenoxyproprionic acid		<0.0500	mg/L	10.0
Pentachlorophenol		<0.0500	mg/L	10.0
TCLP Silver		<0.125	mg/L	0.125
TCLP Arsenic		0.313	mg/L	0.100
TCLP Barium		2.12	mg/L	0.100
TCLP Cadmium		<0.0500	mg/L	0.0500
TCLP Chromium		<0.100	mg/L	0.100
TCLP Mercury		<0.0100	mg/L	0.0100
TCLP Lead		0.652	mg/L	0.0370
TCLP Selenium		<0.500	mg/L	0.500

continued . . .

sample 11153 continued ...

Param	Flag	Result	Units	RL
Vinyl Chloride		<0.0500	mg/L	0.00100
1,1-Dichloroethene		<0.0500	mg/L	0.00100
2-Butanone (MEK)		<0.500	mg/L	0.0100
Chloroform		<0.0500	mg/L	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	0.00100
Benzene		<0.0500	mg/L	0.00100
Carbon Tetrachloride		<0.0500	mg/L	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	0.00100
Chlorobenzene		<0.0500	mg/L	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.00100

Sample: 11154 - Gas Rack 1

Param	Flag	Result	Units	RL
Reactivity		non-reactive		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		non-corrosive	mm/yr	0.00
pH		6.10	s.u.	0.00
Ignitability		non-ignitable		0.00
Pyridine		<0.0500	mg/L	10.0
1,4-Dichlorobenzene (para)		<0.0500	mg/L	10.0
o-Cresol		<0.0500	mg/L	10.0
m,p-Cresol		<0.0500	mg/L	10.0
Hexachloroethane		<0.0500	mg/L	10.0
Nitrobenzene		<0.0500	mg/L	10.0
Hexachlorobutadiene		<0.0500	mg/L	10.0
2,4,6-Trichlorophenol		<0.0500	mg/L	10.0
2,4,5-Trichlorophenol		<0.0500	mg/L	10.0
2,4-Dinitrotoluene		<0.0500	mg/L	10.0
2,4-Dichlorophenoxyacetic acid		<10.0	mg/L	10.0
Hexachlorobenzene		<0.0500	mg/L	10.0
2,4,5-Trichlorophenoxyproprionic acid		<10.0	mg/L	10.0
Pentachlorophenol		<0.0500	mg/L	10.0
TCLP Silver		<0.125	mg/L	0.125
TCLP Arsenic		0.237	mg/L	0.100
TCLP Barium		3.35	mg/L	0.100
TCLP Cadmium		<0.0500	mg/L	0.0500
TCLP Chromium		<0.100	mg/L	0.100
TCLP Mercury		<0.0100	mg/L	0.0100
TCLP Lead		0.0950	mg/L	0.0370
TCLP Selenium		0.577	mg/L	0.500
Vinyl Chloride		<0.0500	mg/L	0.00100
1,1-Dichloroethene		<0.0500	mg/L	0.00100
2-Butanone (MEK)		<0.500	mg/L	0.0100
Chloroform		<0.0500	mg/L	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	0.00100
Benzene		<0.0500	mg/L	0.00100
Carbon Tetrachloride		<0.0500	mg/L	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	0.00100

continued ...

sample 11154 continued ...

Param	Flag	Result	Units	RL
Chlorobenzene		<0.0500	mg/L	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.00100

Sample: 11155 - Gas Rack 2

Param	Flag	Result	Units	RL
Reactivity		non-reactive		0.00
Hydrogen Sulfide		<10.0	mg/Kg	10.0
Hydrogen Cyanide		<2.50	mg/Kg	2.50
Corrosivity		non-corrosive	mm/yr	0.00
pH		7.90	s.u.	0.00
Ignitability		non-ignitable		0.00
Pyridine		<0.0500	mg/L	10.0
1,4-Dichlorobenzene (para)		<0.0500	mg/L	10.0
o-Cresol		<0.0500	mg/L	10.0
m,p-Cresol		<0.0500	mg/L	10.0
Hexachloroethane		<0.0500	mg/L	10.0
Nitrobenzene		<0.0500	mg/L	10.0
Hexachlorobutadiene		<0.0500	mg/L	10.0
2,4,6-Trichlorophenol		<0.0500	mg/L	10.0
2,4,5-Trichlorophenol		<0.0500	mg/L	10.0
2,4-Dinitrotoluene		<0.0500	mg/L	10.0
2,4-Dichlorophenoxyacetic acid		<0.0500	mg/L	10.0
Hexachlorobenzene		<0.0500	mg/L	10.0
2,4,5-Trichlorophenoxyproprionic acid		<0.0500	mg/L	10.0
Pentachlorophenol		<0.0500	mg/L	10.0
TCLP Silver		<0.125	mg/L	0.125
TCLP Arsenic		0.461	mg/L	0.100
TCLP Barium		2.63	mg/L	0.100
TCLP Cadmium		<0.0500	mg/L	0.0500
TCLP Chromium		<0.100	mg/L	0.100
TCLP Mercury		<0.0100	mg/L	0.0100
TCLP Lead		0.0920	mg/L	0.0370
TCLP Selenium		0.916	mg/L	0.500
Vinyl Chloride		<0.0500	mg/L	0.00100
1,1-Dichloroethene		<0.0500	mg/L	0.00100
2-Butanone (MEK)		<0.500	mg/L	0.0100
Chloroform		<0.0500	mg/L	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	0.00100
Benzene		0.0600	mg/L	0.00100
Carbon Tetrachloride		<0.0500	mg/L	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	0.00100
Chlorobenzene		<0.0500	mg/L	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.00100

11153-55

Page ___ of ___

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

TraceAnalysis, Inc.

155 McCulloch, Suite H
El Paso, Texas 79902
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3062419

Company Name: NAVAJO
Phone #:
Address: (Street, City, Zip) 501 S Main
Fax #:
Contact Person: Charlie Plymale
Invoice to: (If different from above)
Project #:
Project Name: MIT TCLP
Project Location:
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING DATE	SAMPLING TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
11153	New Slurry Tank	1	1L		X		X					X	X	6/17/03	1100						X	X	X		X												
54	Gas Kack 1	1	1L		X							X	X	6/17/03	1130						X	X	X		X												
55	Gas Kack 2	1	1L		X							X	X	6/17/03	1140						X	X	X		X												

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	6/17/03	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: [signature]	Date: 6.18.03	Time:

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

CHART COPY

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

REMARKS:

☐ Check if Special Reporting Limits Are Needed

Carrier #

07/04/2003 16:37 8067941298 TRACEANALYSIS PAGE 04
08/24/2003 TUE 09:29 FAX 505 746 6283 NAVAJO D/O DEPT

RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

JUL 29 2003

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

OIL CONSERVATION DIVISION

Form C-138
Revised March 17, 1999

Submit Original Plus 1 Copy to Appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ XX Verbal Approval Received: Yes ☐ No ☐	4. Generator Navajo Refining Co. 5. Originating Site Artesia Plant Yard
2. Management Facility Destination Artesia Aeration, L.L.C.	6. Transporter Jim Wilson Const. Co.LLC
3. Address of Facility Operator P.O. Box 310 Hobbs NM 88240	8. State N.M.
7. Location of Material (Street Address or ULSTR) Maljamar, NM	

9. Circle One:

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

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Hydrocarbon contaminated soil from CBO rack.

RECEIVED JUN 2003 Hobbs OCD

Estimated Volume 1000 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE Jim Wil TITLE: Manager DATE: 6-19-03
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 505-631-2442

072903-1

(This space for State Use)

APPROVED BY: [signature] TITLE: Environmental Engr DATE: 7-24-03

APPROVED BY: [signature] TITLE: Environmental Geologist DATE: 7-29-03

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: Hydrocarbon Contaminated soil from CBO rack

ESTIMATED VOLUME: **1000 yards**

GENERATING PROCESS: Hydrocarbon contaminated soil excavated from the building of new vessel near the CBO loading rack..

REMARKS: Analytical Included

NMOCD FACILITY: Artesia Aeration, L.L.C.

TRUCKING COMPANY: Jim Wilson Construction

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA,NM 88210

DATE: 6/18/03

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Charlie Plymale
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: June 9, 2003

Work Order: 3052305

Project Location:
Project Name:
Project Number: N/A

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
8122	CBO DPL	soil	2003-05-22	14:35	2003-05-23

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 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 8122 - CBO DPL

Analysis:	RCI	Analytical Method:	ASTM D 5049-90/4978-95	Prep Method:	N/A
QC Batch:	2106	Date Analyzed:	2003-06-09	Analyzed By:	JH
Prep Batch:	1892	Date Prepared:	2003-06-09	Prepared By:	JH
Analysis:	RCI	Analytical Method:	S 1110	Prep Method:	N/A
Analysis:	RCI	Analytical Method:	SW-846 Ch. 7.1	Prep Method:	N/A

Parameter	Flag	RL Result	Units	Dilution	RL
Reactivity		non-reactive		1	0.00
Hydrogen Sulfide		<10.0	mg/Kg	1	10.0
Hydrogen Cyanide		<2.50	mg/Kg	1	2.50
Corrosivity		non-corrosive	mm/yr	1	0.00
pH		7.80	s.u.	1	0.00
Ignitability		non-ignitable		1	0.00

Sample: 8122 - CBO DPL

Analysis:	TCLP Semivolatiles	Analytical Method:	S 8270C	Prep Method:	TCLP 1311
QC Batch:	2089	Date Analyzed:	2003-06-05	Analyzed By:	RC
Prep Batch:	1890	Date Prepared:	2003-05-26	Prepared By:	JH

Parameter	Flag	RL Result	Units	Dilution	RL
Pyridine		<0.0500	mg/L	0.005	10.0
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.005	10.0
o-Cresol		<0.0500	mg/L	0.005	10.0
m,p-Cresol		<0.0500	mg/L	0.005	10.0
Hexachloroethane		<0.0500	mg/L	0.005	10.0
Nitrobenzene		<0.0500	mg/L	0.005	10.0
Hexachlorobutadiene		<0.0500	mg/L	0.005	10.0
2,4,6-Trichlorophenol		<0.0500	mg/L	0.005	10.0
2,4,5-Trichlorophenol		<0.0500	mg/L	0.005	10.0
2,4-Dinitrotoluene		<0.0500	mg/L	0.005	10.0
2,4-Dichlorophenoxyacetic acid		<0.0500	mg/L	0.005	10.0
Hexachlorobenzene		<0.0500	mg/L	0.005	10.0
2,4,5-Trichlorophenoxyproprionic acid		<0.0500	mg/L	0.005	10.0
Pentachlorophenol		<0.0500	mg/L	0.005	10.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.143	mg/L	0.005	60.0	48	2.83 - 110.33
Phenol-d5		0.0956	mg/L	0.005	60.0	32	0 - 82.08
Nitrobenzene-d5		0.287	mg/L	0.005	60.0	96	26.72 - 155
2-Fluorobiphenyl		0.264	mg/L	0.005	60.0	88	35.89 - 150.5
2,4,6-Tribromophenol		0.00625	mg/L	0.005	60.0	2	0 - 204.91
Terphenyl-d14		0.325	mg/L	0.005	60.0	108	33.98 - 168.85

Sample: 8122 - CBO DPL

Analysis:	TCLP Total 8 Metals	Analytical Method:	S 7470A	Prep Method:	TCLP 1311

QC Batch:	2065	Date Analyzed:	2003-06-06	Analyzed By:	BC
Prep Batch:	1867	Date Prepared:	2003-06-05	Prepared By:	BC
Analysis:	TCLP Total 8 Metals	Analytical Method:	S 6010B	Prep Method:	TCLP 1311
QC Batch:	2085	Date Analyzed:	2003-06-04	Analyzed By:	RR
Prep Batch:	1707	Date Prepared:	2003-05-28	Prepared By:	TP

Parameter	Flag	RL Result	Units	Dilution	RL
TCLP Silver		<0.125	mg/L	1	0.125
TCLP Arsenic		<0.100	mg/L	1	0.100
TCLP Barium		1.56	mg/L	1	0.100
TCLP Cadmium		<0.0500	mg/L	1	0.0500
TCLP Chromium		0.112	mg/L	1	0.100
TCLP Mercury		<0.0100	mg/L	1	0.0100
TCLP Lead		0.545	mg/L	1	0.0370
TCLP Selenium		<0.500	mg/L	1	0.500

Sample: 8122 - CBO DPL

Analysis:	TCLP Volatiles	Analytical Method:	S 8260B	Prep Method:	TCLP 1311
QC Batch:	2015	Date Analyzed:	2003-06-04	Analyzed By:	JG
Prep Batch:	1820	Date Prepared:	2003-06-04	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Vinyl Chloride		<0.0500	mg/L	50	0.00100
1,1-Dichloroethene		<0.0500	mg/L	50	0.00100
2-Butanone (MEK)		<0.500	mg/L	50	0.0100
Chloroform		<0.0500	mg/L	50	0.00100
1,2-Dichloroethane (EDC)		<0.0500	mg/L	50	0.00100
Benzene		<0.0500	mg/L	50	0.00100
Carbon Tetrachloride		<0.0500	mg/L	50	0.00100
Trichloroethene (TCE)		<0.0500	mg/L	50	0.00100
Tetrachloroethene (PCE)		<0.0500	mg/L	50	0.00100
Chlorobenzene		<0.0500	mg/L	50	0.00100
1,4-Dichlorobenzene (para)		<0.0500	mg/L	50	0.00100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		55.0	mg/L	1	50.0	110	79 - 118
Toluene-d8		51.7	mg/L	1	50.0	103	86 - 114
4-Bromofluorobenzene (4-BFB)		47.8	mg/L	1	50.0	96	79 - 116

Method Blank (1) QC Batch: 2015

Parameter	Flag	Result	Units	RL
Vinyl Chloride		<0.0500	mg/L	0.001
1,1-Dichloroethene		<0.0500	mg/L	0.001
2-Butanone (MEK)		<0.500	mg/L	0.01
Chloroform		<0.0500	mg/L	0.001
1,2-Dichloroethane (EDC)		<0.0500	mg/L	0.001
Benzene		<0.0500	mg/L	0.001

continued ...

method blank continued ...

Parameter	Flag	Result	Units	RL
Carbon Tetrachloride		<0.0500	mg/L	0.001
Trichloroethene (TCE)		<0.0500	mg/L	0.001
Tetrachloroethene (PCE)		<0.0500	mg/L	0.001
Chlorobenzene		<0.0500	mg/L	0.001
1,4-Dichlorobenzene (para)		<0.0500	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		54.3	mg/L	1	50.0	109	79 - 118
Toluene-d8		51.4	mg/L	1	50.0	103	86 - 114
4-Bromofluorobenzene (4-BFB)		46.1	mg/L	1	50.0	92	79 - 116

Method Blank (1) QC Batch: 2065

Parameter	Flag	Result	Units	RL
TCLP Mercury		<0.0100	mg/L	0.01

Method Blank (1) QC Batch: 2085

Parameter	Flag	Result	Units	RL
TCLP Silver		<0.125	mg/L	0.125
TCLP Arsenic		<0.100	mg/L	0.1
TCLP Barium		<0.100	mg/L	0.1
TCLP Cadmium		<0.0500	mg/L	0.05
TCLP Chromium		<0.100	mg/L	0.1
TCLP Lead		<0.0370	mg/L	0.037
TCLP Selenium		<0.500	mg/L	0.5

Method Blank (1) QC Batch: 2089

Parameter	Flag	Result	Units	RL
Pyridine		<0.0500	mg/L	10
1,4-Dichlorobenzene (para)		<0.0500	mg/L	10
o-Cresol		<0.0500	mg/L	10
m,p-Cresol		<0.0500	mg/L	10
Hexachloroethane		<0.0500	mg/L	10
Nitrobenzene		<0.0500	mg/L	10
Hexachlorobutadiene		<0.0500	mg/L	10
2,4,6-Trichlorophenol		<0.0500	mg/L	10
2,4,5-Trichlorophenol		<0.0500	mg/L	10
2,4-Dinitrotoluene		<0.0500	mg/L	10
2,4-Dichlorophenoxyacetic acid		<0.0500	mg/L	10
Hexachlorobenzene		<0.0500	mg/L	10
2,4,5-Trichlorophenoxyproprionic acid		<0.0500	mg/L	10
Pentachlorophenol		<0.0500	mg/L	10

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		0.199	mg/L	0.005	60.0	66	2.83 - 110.33
Phenol-d5		0.156	mg/L	0.005	60.0	52	0 - 82.08
Nitrobenzene-d5		0.305	mg/L	0.005	60.0	102	26.72 - 155
2-Fluorobiphenyl		0.296	mg/L	0.005	60.0	99	35.89 - 150.5
2,4,6-Tribromophenol		0.0188	mg/L	0.005	60.0	6	0 - 204.91
Terphenyl-d14		0.354	mg/L	0.005	60.0	118	33.98 - 168.85

Duplicate (1) QC Batch: 2106

Param	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Reactivity	non-reactive	non-reactive		1	0	
Hydrogen Sulfide	0.00	0.00	mg/Kg	1	0	20
Hydrogen Cyanide	0.00	0.00	mg/Kg	1	0	20
Corrosivity	non-corrosive	non-corrosive	mm/yr	1	0	20
pH	7.80	7.80	s.u.	1	0	20
Ignitability	non-ignitable	non-ignitable		1	0	20

Laboratory Control Spike (LCS-1) QC Batch: 2015

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Vinyl Chloride	4.92	5.09	mg/L	50	0.100	<0.00845	98	3	55 - 131	20
1,1-Dichloroethene	5.19	5.34	mg/L	50	0.100	<0.00790	104	3	81 - 119	20
2-Butanone (MEK)	4.44	4.72	mg/L	50	0.100	<0.0185	89	6	41 - 157	20
Chloroform	4.94	5.05	mg/L	50	0.100	<0.00480	99	2	79 - 126	20
1,2-Dichloroethane (EDC)	5.18	5.26	mg/L	50	0.100	<0.00470	104	2	72 - 131	20
Benzene	5.01	5.13	mg/L	50	0.100	<0.00520	100	2	87 - 118	20
Carbon Tetrachloride	5.66	5.66	mg/L	50	0.100	<0.00390	113	0	43 - 162	20
Trichloroethene (TCE)	4.87	4.95	mg/L	50	0.100	<0.00585	97	2	78 - 110	20
Tetrachloroethene (PCE)	3.95	4.01	mg/L	50	0.100	<0.0205	79	2	48 - 81	20
Chlorobenzene	4.90	5.01	mg/L	50	0.100	<0.00300	98	2	90 - 111	20
1,4-Dichlorobenzene (para)	4.86	5.00	mg/L	50	0.100	<0.00425	97	3	81 - 115	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	52.7	52.9	mg/L	1	50.0	105	106	79 - 118
Toluene-d8	50.9	51.2	mg/L	1	50.0	102	102	86 - 114
4-Bromofluorobenzene (4-BFB)	47.6	47.4	mg/L	1	50.0	95	95	79 - 116

Laboratory Control Spike (LCS-1) QC Batch: 2065

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
TCLP Mercury [1,2]	0.0424	0.0475	mg/L	1	0.0500	<0.000200	85	11	80 - 120	20

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

[1] no flag needed error in versalims
[2] Changed spike amount from 0.001 to 0.05 due to error in versalims spike amount

Laboratory Control Spike (LCS-1) QC Batch: 2085

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
TCLP Silver	1.34	1.35	mg/L	1	1.25	<0.00780	107	1	75 - 125	20
TCLP Arsenic	4.36	4.50	mg/L	1	5.00	<0.0590	87	3	75 - 125	20
TCLP Barium	10.9	11.0	mg/L	1	10.0	<0.00340	109	1	75 - 125	20
TCLP Cadmium	2.70	2.73	mg/L	1	2.50	<0.00270	108	1	75 - 125	20
TCLP Chromium	1.08	1.09	mg/L	1	1.00	<0.00660	108	1	75 - 125	20
TCLP Lead	5.32	4.95	mg/L	1	5.00	<0.0370	106	7	75 - 125	20
TCLP Selenium	4.74	4.81	mg/L	1	5.00	<0.100	95	1	75 - 125	20

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

Laboratory Control Spike (LCS-1) QC Batch: 2089

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Pyridine	28.4	29.0	mg/L	1	60.0	<2.41	47	2	12.6 - 50.02	20
1,4-Dichlorobenzene (para)	38.8	38.4	mg/L	1	60.0	<1.93	65	1	13.67 - 139.56	20
o-Cresol	40.3	40.4	mg/L	1	60.0	<1.46	67	0	18.58 - 114.05	20
m,p-Cresol	87.7	87.2	mg/L	1	60.0	<1.19	146	0	10.62 - 252.59	20
Hexachloroethane	50.5	49.6	mg/L	1	60.0	<1.91	84	2	25.17 - 146.78	20
Nitrobenzene	51.2	51.3	mg/L	1	60.0	<1.50	85	0	26.78 - 144.08	20
Hexachlorobutadiene	50.6	50.5	mg/L	1	60.0	<1.57	84	0	0 - 171.61	20
2,4,6-Trichlorophenol	50.3	50.6	mg/L	1	60.0	<1.64	84	0	19.23 - 144.93	20
2,4,5-Trichlorophenol	52.9	53.2	mg/L	1	60.0	<1.95	88	0	40.38 - 144.67	20
2,4-Dinitrotoluene	57.8	58.2	mg/L	1	60.0	<2.09	96	1	18.51 - 158.26	20
2,4-Dichlorophenoxyacetic acid	75.9	76.4	mg/L	1	60.0	0	126	1	0 - 165.81	20
Hexachlorobenzene	62.9	63.0	mg/L	1	60.0	<1.63	105	0	2.35 - 182.77	20
2,4,5-Trichlorophenoxyproprionic acid	70.2	72.0	mg/L	1	60.0	0	117	2	22.1 - 144.74	20
Pentachlorophenol	59.8	59.6	mg/L	1	60.0	<3.04	100	0	0 - 156.72	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
2-Fluorophenol	33.0	34.1	mg/L	1	60.0	55	57	2.83 - 110.33
Phenol-d5	26.7	27.0	mg/L	1	60.0	44	45	0 - 82.08
Nitrobenzene-d5	54.6	54.7	mg/L	1	60.0	91	91	26.72 - 155
2-Fluorobiphenyl	54.0	54.5	mg/L	1	60.0	90	91	35.89 - 150.5
2,4,6-Tribromophenol	39.1	39.4	mg/L	1	60.0	65	66	0 - 204.91
Terphenyl-d14	67.9	68.2	mg/L	1	60.0	113	114	33.98 - 168.85

Matrix Spike (MS-1) QC Batch: 2015

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Vinyl Chloride	5.18	5.13	mg/L	50	0.100	<0.00845	104	1	58 - 136	20
1,1-Dichloroethene	5.40	5.39	mg/L	50	0.100	<0.00790	108	0	81 - 125	20
2-Butanone (MEK)	4.21	4.23	mg/L	50	0.100	<0.0185	84	0	33 - 122	20
Chloroform	5.13	5.14	mg/L	50	0.100	<0.00480	103	0	81 - 130	20
1,2-Dichloroethane (EDC)	5.27	5.30	mg/L	50	0.100	<0.00470	105	0	76 - 137	20
Benzene	5.06	5.07	mg/L	50	0.100	<0.00520	101	0	88 - 121	20

continued ...

matrix spikes continued ...

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Carbon Tetrachloride	5.41	5.50	mg/L	50	0.100	<0.00390	108	2	56 - 156	20
Trichloroethene (TCE)	4.83	4.80	mg/L	50	0.100	<0.00585	97	1	77 - 111	20
Tetrachloroethene (PCE)	3.84	3.85	mg/L	50	0.100	<0.0205	77	0	48 - 80	20
Chlorobenzene	4.93	4.96	mg/L	50	0.100	<0.00300	99	1	89 - 113	20
1,4-Dichlorobenzene (para)	4.85	4.93	mg/L	50	0.100	<0.00425	97	2	82 - 113	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	54.2	54.5	mg/L	1	50	108	109	79 - 118
Toluene-d8	51.3	52.0	mg/L	1	50	103	104	86 - 114
4-Bromofluorobenzene (4-BFB)	47.8	48.2	mg/L	1	50	96	96	79 - 116

Matrix Spike (MS-2) QC Batch: 2065

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
TCLP Mercury [3,4]	0.0527	0.0420	mg/L	1	0.0500	<0.000200	105	22	80 - 120	20

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

Matrix Spike (MS-1) QC Batch: 2085

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
TCLP Silver	1.34	1.32	mg/L	1	1.25	<0.00780	107	2	75 - 125	20
TCLP Arsenic	4.24	4.65	mg/L	1	5.00	<0.0590	85	9	75 - 125	20
TCLP Barium	13.1	12.9	mg/L	1	10.0	2.41	107	2	75 - 125	20
TCLP Cadmium	2.74	2.72	mg/L	1	2.50	<0.00270	110	1	75 - 125	20
TCLP Chromium	1.06	1.09	mg/L	1	1.00	0.091	97	3	75 - 125	20
TCLP Lead	5.71	5.78	mg/L	1	5.00	0.839	97	1	75 - 125	20
TCLP Selenium	3.87	3.85	mg/L	1	5.00	<0.100	77	0	75 - 125	20

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

Matrix Spike (MS-1) QC Batch: 2089

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Pyridine	19.8	19.1	mg/L	1	60.0	<2.41	33	4	12.6 - 50.02	20
1,4-Dichlorobenzene (para)	40.5	36.6	mg/L	1	60.0	<1.93	68	10	13.67 - 139.56	20
o-Cresol	32.7	32.2	mg/L	1	60.0	<1.46	54	2	18.58 - 114.05	20
m,p-Cresol	65.8	64.4	mg/L	1	60.0	<1.19	110	2	10.62 - 252.59	20
Hexachloroethane	51.4	50.3	mg/L	1	60.0	<1.91	86	2	25.17 - 146.78	20
Nitrobenzene	51.8	50.4	mg/L	1	60.0	<1.50	86	3	26.78 - 144.08	20
Hexachlorobutadiene	50.2	49.4	mg/L	1	60.0	<1.57	84	2	0 - 171.61	20
2,4,6-Trichlorophenol	48.3	48.8	mg/L	1	60.0	<1.64	80	1	19.23 - 144.93	20
2,4,5-Trichlorophenol	53.7	52.2	mg/L	1	60.0	<1.95	90	3	40.38 - 144.67	20

continued ...

[3]Changed spike amount from 0.001 to 0.05 due to error in versalims spike amount
[4]Changed spike amount from 0.001 to 0.05 due to error in versalims spike amount

matrix spikes continued ...

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
2,4-Dinitrotoluene	55.4	55.9	mg/L	1	60.0	<2.09	92	1	18.51 - 158.26	20
2,4-Dichlorophenoxyacetic acid	70.2	73.4	mg/L	1	60.0	0	117	4	0 - 165.81	20
Hexachlorobenzene	55.9	57.0	mg/L	1	60.0	<1.63	93	2	2.35 - 182.77	20
2,4,5-Trichlorophenoxyproprionic acid	66.6	68.1	mg/L	1	60.0	0	111	2	22.1 - 144.74	20
Pentachlorophenol	59.3	59.1	mg/L	1	60.0	<3.04	99	0	0 - 156.72	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
2-Fluorophenol	23.6	24.3	mg/L	1	60	39	40	2.83 - 110.33
Phenol-d5	16.0	15.4	mg/L	1	60	27	26	0 - 82.08
Nitrobenzene-d5	57.0	55.6	mg/L	1	60	95	93	26.72 - 155
2-Fluorobiphenyl	54.6	55.1	mg/L	1	60	91	92	35.89 - 150.5
2,4,6-Tribromophenol	35.2	35.5	mg/L	1	60	59	59	0 - 204.91
Terphenyl-d14	68.9	70.1	mg/L	1	60	115	117	33.98 - 168.85

Standard (CCV-1) QC Batch: 2015

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		mg/L	50.0	50.0	100	80 - 120	2003-06-04
1,1-Dichloroethene		mg/L	50.0	48.0	96	80 - 120	2003-06-04
2-Butanone (MEK)		mg/L	50.0	42.0	84	80 - 120	2003-06-04
Chloroform		mg/L	50.0	46.0	92	80 - 120	2003-06-04
1,2-Dichloroethane (EDC)		mg/L	50.0	46.0	92	80 - 120	2003-06-04
Benzene		mg/L	50.0	46.0	92	80 - 120	2003-06-04
Carbon Tetrachloride		mg/L	50.0	52.0	104	80 - 120	2003-06-04
Trichloroethene (TCE)		mg/L	50.0	46.0	92	80 - 120	2003-06-04
Tetrachloroethene (PCE)		mg/L	50.0	52.0	104	80 - 120	2003-06-04
Chlorobenzene		mg/L	50.0	46.0	92	80 - 120	2003-06-04
1,4-Dichlorobenzene (para)		mg/L	50.0	47.0	94	80 - 120	2003-06-04

Standard (ICV-1) QC Batch: 2065

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury	[5]	mg/L	0.00500	0.00505	101	90 - 110	2003-06-06

Standard (CCV-2) QC Batch: 2065

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Mercury	[6]	mg/L	0.00500	0.00508	102	80 - 120	2003-06-06

Standard (ICV-1) QC Batch: 2085

[5]Changed spike amount from 0.001 to 0.005 due to error in versalims spike amount
[6]Changed spike amount from 0.001 to 0.005 due to error in versalims spike amount

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Silver		mg/L	0.125	0.121	97	90 - 110	2003-06-04
TCLP Arsenic		mg/L	1.00	0.949	95	90 - 110	2003-06-04
TCLP Barium		mg/L	1.00	1.05	105	90 - 110	2003-06-04
TCLP Cadmium		mg/L	1.00	1.02	102	90 - 110	2003-06-04
TCLP Chromium		mg/L	1.00	1.02	102	90 - 110	2003-06-04
TCLP Lead		mg/L	1.00	1.02	102	90 - 110	2003-06-04
TCLP Selenium		mg/L	1.00	1.02	102	90 - 110	2003-06-04

Standard (CCV-1) QC Batch: 2085

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
TCLP Silver		mg/L	0.125	0.133	106	90 - 110	2003-06-04
TCLP Arsenic		mg/L	1.00	1.07	107	90 - 110	2003-06-04
TCLP Barium		mg/L	1.00	1.06	106	90 - 110	2003-06-04
TCLP Cadmium		mg/L	1.00	1.01	101	90 - 110	2003-06-04
TCLP Chromium		mg/L	1.00	1.02	102	90 - 110	2003-06-04
TCLP Lead		mg/L	1.00	0.998	100	90 - 110	2003-06-04
TCLP Selenium		mg/L	1.00	0.923	92	90 - 110	2003-06-04

Standard (CCV-1) QC Batch: 2089

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Pyridine		mg/L	60.0	65.2	109	80 - 120	2003-06-05
1,4-Dichlorobenzene (para)		mg/L	60.0	62.2	104	80 - 120	2003-06-05
o-Cresol		mg/L	60.0	64.2	107	80 - 120	2003-06-05
m,p-Cresol		mg/L	60.0	63.6	106	80 - 120	2003-06-05
Hexachloroethane		mg/L	60.0	66.6	111	80 - 120	2003-06-05
Nitrobenzene		mg/L	60.0	69.1	115	80 - 120	2003-06-05
Hexachlorobutadiene		mg/L	60.0	66.5	111	80 - 120	2003-06-05
2,4,6-Trichlorophenol		mg/L	60.0	64.0	107	80 - 120	2003-06-05
2,4,5-Trichlorophenol		mg/L	60.0	62.8	105	80 - 120	2003-06-05
2,4-Dinitrotoluene		mg/L	60.0	64.5	108	80 - 120	2003-06-05
2,4-Dichlorophenoxyacetic acid		mg/L	60.0	59.9	100	80 - 120	2003-06-05
Hexachlorobenzene		mg/L	60.0	54.2	90	80 - 120	2003-06-05
2,4,5-Trichlorophenoxyproprionic acid		mg/L	60.0	69.3	116	80 - 120	2003-06-05
Pentachlorophenol		mg/L	60.0	59.8	100	80 - 120	2003-06-05

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		65.0	mg/L	1	60.0	108	80 - 120
Phenol-d5		63.4	mg/L	1	60.0	106	80 - 120
Nitrobenzene-d5		68.3	mg/L	1	60.0	114	80 - 120
2-Fluorobiphenyl		61.5	mg/L	1	60.0	102	80 - 120
2,4,6-Tribromophenol		57.7	mg/L	1	60.0	96	80 - 120
Terphenyl-d14		61.9	mg/L	1	60.0	103	80 - 120

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

TraceAnalysis, Inc.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 3052305

pany Name: Navajo
ss: (Street, City, Zip)
Phone #:
Fax #:
ct Person: Charlie Plymale
e to:
erent from above)
t #:
Project Name:
t Location: Artesia
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

B # (USE LY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
2	CB0 OPL	1	L		X							X		5/22	1435						X	X	X		X												

ished by:	Date:	Time:	Received by:	Date:	Time:
	5/22/03	1615			
shed by:	Date:	Time:	Received by:	Date:	Time:
shed by:	Date:	Time:	Received at Laboratory by: Vicki Hensley	Date: 5-23-03	Time: 9:41

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

LAB USE ONLY
Intact (Y) / N
Headspace Y / N
Temp 1.6 °
Log-in Review M

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Carrier # Fed Ex 7913 8960-7729

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised March 17, 1999

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☑ Verbal Approval Received: Yes ☑ No ☐	4. Generator NAVAJO REFINING 5. Originating Site ARTESIA PLANT
2. Management Facility Destination ARTESIA AERATION	6. Transporter D&T TRUCKING
3. Address of Facility Operator BOX 310 Hobbs, N.M.	8. State N. M.
7. Location of Material (Street Address or ULSTR) MALJAMAR N.M	

9. Circle One:

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

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Hydrocarbon Contaminated Soil

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

SIGNATURE Jim Wil TITLE: Manager DATE: 11/20/02
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 392-9575

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyn J. Ely TITLE: Environmental Geologist DATE: _____

Navajo REFINING COMPANY

FAX
(505) 746-5283 DIV. ORDERS
(505) 746-5481 TRUCKING
(505) 746-5458 PERSONNEL

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (505) 748-3311

FAX
(505) 746-5419 ACCOUNTING
(505) 746-5451 EXEC/MKTG
(505) 746-5421 ENGINEERING
(505) 746-5480 PIPELINE

November 15, 2002

Jim Wilson
Artesia Aeration, L.L.C.
Land Farm
P.O. Box 310
Hobbs, NM 88240

Subject: Profile of Hydrocarbon Contaminated Soil

I would like to profile into your facility hydrocarbon contaminated soil that was excavated from the building of a new caustic tank in the refinery. There is approximately 500 yards of contaminated soil.

If you have any further question please call me at (505) 746-5241.

Sincerely,

Charlie Plymale
Environmental Specialist

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: Hydrocarbon Contaminated soil

ESTIMATED VOLUME: **500 yards**

GENERATING PROCESS: Hydrocarbon contaminated soil excavated from the building of a new caustic tank.

REMARKS:
NMOCD FACILITY: Artesia Aeration, L.L.C.

TRUCKING COMPANY: D and J Waste Services

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: _____
SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA,NM 88210

DATE: 11/15/02

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Summary Report

Charlie Plymale
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: November 11, 2002

Order ID Number: A02102321

Project Number: N/A
Project Name: TCLP-New Caustic TK
Project Location: Artesia

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
211463	TCLP N. Caust. TK	Soil	10/22/02	15:30	10/23/02

0 This report consists of a total of 2 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample: 211463 - TCLP N. Caust. TK

Param	Flag	Result	Units
Corrosivity		non-corrosive	mm/yr
pH		8.8	s.u.
Ignitability		non-ignitable	
Reactivity		non-reactive	
Hydrogen Sulfide		60	mg/Kg
Hydrogen Cyanide		<2.5	mg/Kg
TCLP Mercury		<0.010	mg/L
TCLP Arsenic		<0.500	mg/L
TCLP Barium		<1.00	mg/L
TCLP Cadmium		<0.050	mg/L
TCLP Chromium		<0.100	mg/L
TCLP Lead		<0.100	mg/L
TCLP Selenium		<0.100	mg/L
TCLP Silver		<0.020	mg/L
Pyridine		<0.05	mg/L
1,4-Dichlorobenzene		<0.05	mg/L
o-Cresol		<0.05	mg/L
m,p-Cresol		<0.05	mg/L
Hexachloroethane		<0.05	mg/L
Nitrobenzene		<0.05	mg/L
Hexachlorobutadiene		<0.05	mg/L
2,4,6-Trichlorophenol		<0.05	mg/L
2,4,5-Trichlorophenol		<0.05	mg/L
2,4-Dinitrotoluene		<0.05	mg/L
2,4-D		<0.05	mg/L
Hexachlorobenzene		<0.05	mg/L
2,4,5-TP		<0.05	mg/L
Pentachlorophenol		<0.05	mg/L
Vinyl Chloride		<0.05	mg/L

Continued on next page ...

This is only a summary. Please, refer to the complete report package for quality control data.

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: November 11, 2002 Order Number: A02102321 Page Number: 2 of 2
N/A TCLP-New Caustic TK Artesia

Sample 211463 continued ...

Param	Flag	Result	Units
2,4-D (EPA limit = 10.0)		<0.05	mg/L
Hexachlorobenzene (EPA limit = 0.13)		<0.05	mg/L
2,4,5-TP (EPA limit = 1.0)		<0.05	mg/L
Pentachlorophenol (EPA limit = 100.0)		<0.05	mg/L
TCLP Volatiles			
Vinyl Chloride (EPA limit = 0.20)		<0.05	mg/L
1,1-Dichloroethene (EPA limit = 0.70)		<0.05	mg/L
Methyl ethyl ketone (EPA limit = 200.0)		<0.50	mg/L
Chloroform (EPA limit = 6.00)		<0.05	mg/L
1,2-Dichloroethane (EDC) (EPA limit = 0.50)		<0.05	mg/L
Benzene (EPA limit = 0.50)		<0.05	mg/L
Carbon Tetrachloride (EPA limit = 0.50)		<0.05	mg/L
Trichloroethene (TCE) (EPA limit = 0.50)		<0.05	mg/L
Tetrachloroethene (PCE) (EPA limit = 0.70)		<0.05	mg/L
Chlorobenzene (EPA limit = 100.00)		<0.05	mg/L
1,4-Dichlorobenzene (EPA limit = 7.50)		<0.05	mg/L

This is only a summary. Please, refer to the complete report package for quality control data.

41763

Page ____ of ____

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

TraceAnalysis, Inc.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #: A0210321

Company Name: Navajo
Phone #: 505 748-3311
Address: (Street, City, Zip) 501 E. Main
Fax #: 505 746-5421
Contact Person: Charlie Plymate
Invoice to: (If different from above)
Project #:
Project Name: TCLP - New constr. TK
Project Location: Artesia
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
21463	TCLP - N. Const. TK	1	1L		X							X	X	10/22/02	1530						X	X	X		X											

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Charlie	10/22/02	1615			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Chris Clements	Date: 10-23-02	Time: 1042

LAB USE ONLY
Intact: Y / N
Headspace: Y / N
Temp: 3 °
Log-in Review: [illegible]

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Carrier: Fed Ex 7912 1483 4916

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

ORIGINAL COPY

TRACEANALYSIS 05/10/2002 11:47 PAGE 03

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-138
Revised March 17, 1999

Submit Original
Plus 1 Copy
to Appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☑	4. Generator NAVAJO Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia PLANT
2. Management Facility Destination Artesia AERATION	6. Transporter D&T Trucking
3. Address of Facility Operator Box 310 Hobbs, N.M.	8. State N.M.
7. Location of Material (Street Address or ULSTR) MALJAMAR N.M	

9. Circle One:

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

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Hydrocarbon Contaminated Soil

NOV 2002 RECEIVED Hobbs OCD

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

SIGNATURE Jim Wilson TITLE: Manager DATE: 11/20/02
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jim Wilson TELEPHONE NO. 392-9575

1-20121

(This space for State Use)

APPROVED BY: [signature] TITLE: Environ Engr DATE: 11-21-02

APPROVED BY: [signature] TITLE: Environmental Geologist DATE: 11-21-02

NAVAJO REFINING COMPANY

FAX
(505) 746-5283 DIV. ORDERS
(505) 746-5481 TRUCKING
(505) 746-5458 PERSONNEL

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159
TELEPHONE (505) 748-3311

FAX
(505) 746-5419 ACCOUNTING
(505) 746-5451 EXEC/MKTG
(505) 746-5421 ENGINEERING
(505) 746-5480 PIPELINE

November 15, 2002

Jim Wilson
Artesia Aeration, L.L.C.
Land Farm
P.O. Box 310
Hobbs, NM 88240

Subject: Profile of Hydrocarbon Contaminated Soil

I would like to profile into your facility hydrocarbon contaminated soil that was excavated from the building of a new caustic tank in the refinery. There is approximately 500 yards of contaminated soil.

If you have any further question please call me at (505) 746-5241.

Sincerely,

Charlie Plymale
Environmental Specialist

NOV 2002
RECEIVED
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: Hydrocarbon Contaminated soil

ESTIMATED VOLUME: **500 yards**

GENERATING PROCESS: Hydrocarbon contaminated soil excavated from the building of a new caustic tank.

REMARKS:
NMOCD FACILITY: Artesia Aeration, L.L.C.

TRUCKING COMPANY: D and J Waste Services

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 261.3.

NOV 2002
RECEIVED
Hobbs
OCD

AGENT: SIGNATURE

NAME: Charlie Plymale
PRINTED

ADDRESS: **501 EAST MAIN**

ARTESIA,NM 88210

DATE: 11/15/02

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: November 11, 2002 Order Number: A02102321 Page Number: 1 of 2
N/A TCLP-New Caustic TK Artesia

Summary Report

Charlie Plymale
Navajo Refining
501 E. Main
Artesia, NM 88210

Report Date: November 11, 2002

Order ID Number: A02102321

Project Number: N/A
Project Name: TCLP-New Caustic TK
Project Location: Artesia

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
211463	TCLP N. Caust. TK	Soil	10/22/02	15:30	10/23/02

0 This report consists of a total of 2 page(s) and is intended only as a summary of results for the sample(s) listed above.

Sample: 211463 - TCLP N. Caust. TK

Param	Flag	Result	Units
Corrosivity		non-corrosive	mm/yr
pH		8.8	s.u.
Ignitability		non-ignitable	
Reactivity		non-reactive	
Hydrogen Sulfide		60	mg/Kg
Hydrogen Cyanide		<2.5	mg/Kg
TCLP Mercury		<0.010	mg/L
TCLP Arsenic		<0.500	mg/L
TCLP Barium		<1.00	mg/L
TCLP Cadmium		<0.050	mg/L
TCLP Chromium		<0.100	mg/L
TCLP Lead		<0.100	mg/L
TCLP Selenium		<0.100	mg/L
TCLP Silver		<0.020	mg/L
Pyridine		<0.05	mg/L
1,4-Dichlorobenzene		<0.05	mg/L
o-Cresol		<0.05	mg/L
m,p-Cresol		<0.05	mg/L
Hexachloroethane		<0.05	mg/L
Nitrobenzene		<0.05	mg/L
Hexachlorobutadiene		<0.05	mg/L
2,4,6-Trichlorophenol		<0.05	mg/L
2,4,5-Trichlorophenol		<0.05	mg/L
2,4-Dinitrotoluene		<0.05	mg/L
2,4-D		<0.05	mg/L
Hexachlorobenzene		<0.05	mg/L
2,4,5-TP		<0.05	mg/L
Pentachlorophenol		<0.05	mg/L
Vinyl Chloride		<0.05	mg/L

NOV 2002 RECEIVED Hobbs OCD

Continued on next page ...

This is only a summary. Please, refer to the complete report package for quality control data.

TraceAnalysis, Inc. 6701 Aberdeen Ave., Suite 9 Lubbock, TX 79424-1515 (806) 794-1296

Report Date: November 11, 2002 Order Number: A02102321 Page Number: 2 of 2
N/A TCLP-New Caustic TK Artesia

Sample 211463 continued ...

Param	Flag	Result	Units
2,4-D (EPA limit = 10.0)		<0.05	mg/L
Hexachlorobenzene (EPA limit = 0.13)		<0.05	mg/L
2,4,5-TP (EPA limit = 1.0)		<0.05	mg/L
Pentachlorophenol (EPA limit = 100.0)		<0.05	mg/L
TCLP Volatiles			
Vinyl Chloride (EPA limit = 0.20)		<0.05	mg/L
1,1-Dichloroethene (EPA limit = 0.70)		<0.05	mg/L
Methyl ethyl ketone (EPA limit = 200.0)		<0.50	mg/L
Chloroform (EPA limit = 6.00)		<0.05	mg/L
1,2-Dichloroethane (EDC) (EPA limit = 0.50)		<0.05	mg/L
Benzene (EPA limit = 0.50)		<0.05	mg/L
Carbon Tetrachloride (EPA limit = 0.50)		<0.05	mg/L
Trichloroethene (TCE) (EPA limit = 0.50)		<0.05	mg/L
Tetrachloroethene (PCE) (EPA limit = 0.70)		<0.05	mg/L
Chlorobenzene (EPA limit = 100.00)		<0.05	mg/L
1,4-Dichlorobenzene (EPA limit = 7.50)		<0.05	mg/L

NOV 2002
RECEIVED
Hobbs
OCD

This is only a summary. Please, refer to the complete report package for quality control data.

211463

Page ____ of ____

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

TraceAnalysis, Inc.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #: A0210321

Company Name: Navajo
Phone #: 505 748-3311
Address: (Street, City, Zip) 501 E. Main
Fax #: 505 746-5421
Contact Person: Charlie Plymate
Invoice to: (If different from above)
Project #:
Project Name: TCLP - Non caustic TK
Project Location: Artesia
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	SAMPLING: TIME	MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	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
211463	TCLP - N. Caust. TK	1	1L		X							X	X	10/22/02	1530						X	X	X		X												

Relinquished by: Charlie Date: 10/22/02 Time: 1615
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time: 10-23-02 1010

RECEIVED NOV 2002 Hobbs OCD

LAB USE ONLY
Intact (Y) / N
Headspace Y / N
Temp 3°
Log in Review MK

REMARKS:

☐ Check If Special Reporting Limits Are Needed

Carrier # Fed Ex 7912 1483 4916

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

ORIGINAL COPY

11/12/2002 09:36 8067941298 TRACEANALYSIS PAGE 03