

GW - 76

# REPORTS

YEAR(S):

1997

August 11, 1997

David T. Taylor  
President  
Star Tool Company  
P.O. Box 2008  
Hobbs, NM 88240

Patricio W. Sanchez  
Petroleum Engineering Specialist  
Environmental Bureau - OCD  
2040 South Pacheco Street  
Santa Fe, NM 87505

NO 27 07

**RE: Renewal Inspection Report May 9, 1997  
Discharge Plan GW-076  
Star Tool Hobbs Facility**

Dear Mr. Sanchez:

Please find enclosed Star Tool's corrective action report in response to your renewal inspection report dated May 9, 1997. This report outlines the actions taken by Star Tool to ensure full and complete compliance with the terms and conditions of Discharge Plan GW-076. Actions taken include the following:

1. A pressure test of all below grade waste water lines.
2. A full integrity inspection of all below grade sumps.
3. An investigation of the three class V wells.
4. A compilation of waste filter disposal documentation.
5. An inspection of all chemical storage areas.
6. The proper characterization and disposal of waste water effluent.
7. The installation of an impermeable liner/secondary containment for the fuel island.
8. The installation of a waste water recycling/recirculating system.

Mr. Patricio W. Sanchez  
Environmental Bureau - OCD  
August 11, 1997  
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Should you have any questions or concerns with the attached report, please contact me at your earliest convenience at (505) 397-4988.

Sincerely,

A handwritten signature in cursive script that reads "David T. Taylor". The signature is written in black ink and is positioned above the typed name and title.

David T. Taylor  
President  
Star Tool Company

Attachment: Discharge Plan GW-076 Corrective Action Report

c: Mr. Wayne Price - Environmental Engineer, OCD Hobbs District



## ENVIRONMENTAL CONSULTING & REMEDIATION SERVICES

### DISCHARGE PLAN GW-076 CORRECTIVE ACTION REPORT

STAR TOOL COMPANY  
1000 West County Road  
Hobbs, NM 88240

Prepared by: Chris E. Stapp Date: August 8, 1997  
Chris E. Stapp  
Project Manager  
Nickell Environmental Corporation

Submitted by: David T. Taylor Date: August 13, 1997  
David T. Taylor  
President  
Star Tool Company

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Attachment 1	Waste Water Disposal Authorizations & Analytical Data
Attachment 2	Site Drawing
Attachment 3	Well Investigation Analytical Data
Attachment 4	Well Investigation Photograph Log
Attachment 5	Waste Filter Profiles
Attachment 6	Waste Water Recovery and Recycling System Drawing



**DISCHARGE PLAN GW-076**  
**CORRECTIVE ACTION REPORT**  
**STAR TOOL COMPANY**  
**August 11, 1997**

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**I. EFFLUENT CHARACTERIZATION**

The waste water and sludge generated from steam cleaning/washing oil field rental tools have been properly characterized per 40 CFR Part 261 as non-hazardous. In addition, Star Tool Company obtained approval from Controlled Recovery Inc. and the New Mexico Oil Conservation Division (OCD) to dispose of this waste as non-hazardous at the CRI Hobbs, NM facility. This waste has been disposed of in accordance with rule 7-11. (Ref. Attachment 1)

**II. INSPECTION OF UNDERGROUND SUMPS**

All sumps at Star Tool Company have been emptied, steam cleaned, and visually inspected for integrity. The condition of each sump has been documented by photograph. This documentation is kept on file at the facility and available for inspection by the OCD. In addition to this inspection, Star Tool has installed a steel sump inside the previous concrete sump located adjacent to the oil/water separator on the East end of the facility. The original concrete sump will now serve as secondary containment for the new inner steel sump. Also, there is sufficient room between the walls of the concrete sump and the wall of the steel sump to allow visual inspection for leak detection. A visual inspection of sump condition will be performed at least monthly and documented. This documentation is kept on file at the facility and available for inspection by the OCD. All other sumps at Star Tool will continue to be inspected at least annually by emptying, steam cleaning, and integrity inspecting. The condition of each sump will be documented by photograph. This documentation will be kept at the facility and available for inspection by the OCD.

**III. PRESSURE TESTING OF UNDERGROUND LINES**

At the time of sump cleaning and inspection, Star Tool Company hired a plumber licensed by the State of New Mexico to pressure test all underground waste water lines at the facility. The subject lines were tested to three (3) psig above normal operating pressure for a minimum of 30 minutes. It should be noted that all underground waste water lines at this facility are gravity flow. All waste water lines currently in place held this pressure and are considered in proper operating condition. Documentation of pressure test results are kept at the facility and available for OCD inspection.

**IV. CLASS V WELL INVESTIGATION AND CLOSURE**

On Thursday, June 19, 1997, an environmental investigation to determine the nature and extent of contamination due to the three Class V wells at Star Tool was completed. West Texas Water Well Service of Odessa, Texas was employed to assist with the boring work and Trace Analysis Environmental Laboratory of Lubbock, Texas was used to perform analyses on soil samples collected during the investigation. Please reference the attached site drawing (Attachment 2) indicating approximate locations of the existing wells and the investigative borings, the analytical data provided by Trace Analysis Environmental Laboratory (Attachment 3) and the photograph log (Attachment 4) documenting the various steps of the investigative process.



**DISCHARGE PLAN GW-076**  
**CORRECTIVE ACTION REPORT**  
**STAR TOOL COMPANY**  
**August 11, 1997**

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**A. WELL 1 INVESTIGATION**

Well 1 was the first well to be investigated (ref. Attachment 4 photos 1 & 2). Well 1 was the only open boring at the facility. Wells 2 and 3 had been previously filled with lava rock. Well 1 was approximately twenty-nine and a half feet (29.5') deep. Therefore, soil samples were collected at approximately thirty feet (30') and thirty-five feet (35'). These depths were chosen in order to determine whether or not contamination existed at the bottom of the boring and if so, whether or not that contamination had migrated beyond the bottom of the well. Sample number W1-01-30FT was collected at thirty feet (30') and sample number W1-02-35FT was collected at thirty-five feet (35'). Analyses performed on these samples were: 6010 (Total Metals), Reactivity, Corrosivity, Ignitability, TPH, 8240 (Volatile Organics), and 8270 (Semivolatile Organics), TCLP Lead, TCLP Barium, TCLP Chromium, SPLP Barium, and SPLP Lead.

Analytical results of these samples collected from this well were evaluated against 40 CFR Part 261 and 20 NMAC 6.2.3103. Based on the evaluation of this analytical data (ref. Attachment 3) the soil is non-hazardous and there is no risk to human health or the environment due to contamination associated with this well. Therefore, it is the recommendation of Star Tool Company that no further investigative action be taken nor remediation required. In addition, this well has been plugged with hydrated bentonite chips and capped with concrete to prevent future use and is considered closed by Star Tool Company (ref. Attachment 4, photos 4, 5, & 16).

**B. WELL 2 INVESTIGATION**

Well 2 was the second well investigated (ref. Attachment 4, photo 6). This well had been filled with lava rock prior to investigation. Therefore, it was necessary to move out approximately three feet (3') Southwest of Well 2 and drill investigative boring W2-IB (ref. Attachment 2). W2-IB was drilled to a depth of forty-three feet (43'). During the boring process (ref. Attachment 4, photo 7), soil sample number W2-01-38FT was collected at thirty-eight feet (38') and sample number W2-02-43FT was collected at forty-three feet (43'). Sample W2-01-38FT was collected at thirty-eight feet (38') because this is the original depth of Well 2. Sample W2-02-43FT was collected at forty-three feet (43') in order to determine whether or not contamination, if any, found in the sample taken at thirty-eight feet (38') had migrated. Analyses performed on these samples were: 6010 (Total Metals), Reactivity, Corrosivity, Ignitability, TPH, 8240 (Volatile Organics), and 8270 (Semivolatile Organics).

Analytical results of these samples collected from this well were evaluated against 40 CFR Part 261 and 20 NMAC 6.2.3103. Based on the evaluation of this analytical data (ref. Attachment 3) the soil is non-hazardous and there is no risk to human health or the environment due to contamination associated with this well. Therefore, it is the recommendation of Star Tool Company that no further investigative action be taken nor remediation required. In addition, approximately two and a half feet of soil and lava rock was removed from the top of Well 2 and it was capped with concrete (ref. Attachment 4, photos 6 & 17). Also, investigative boring W2-IB



**DISCHARGE PLAN GW-076**  
**CORRECTIVE ACTION REPORT**  
**STAR TOOL COMPANY**  
**August 11, 1997**

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was plugged with hydrated bentonite chips and capped with concrete (ref. Attachment 3 photos 8 & 11). As a result, both Well 2 and investigative boring W2-IB have been rendered unavailable for future use and are considered closed by Star Tool Company.

**C. WELL 3 INVESTIGATION**

Well 3 was the third and last well investigated (ref. Attachment 4, photo 9). This well had been filled with lava rock prior to investigation. Therefore, it was necessary to move out approximately three feet (3') Northeast of Well 3 and drill investigative boring W3-IB (ref. Attachment 2). W3-IB was drilled to a depth of forty-three feet (43'). During the boring process (ref. Attachment 3, photo 13), soil sample number W3-01-38FT was collected at thirty-eight feet (38') and sample number W3-02-43FT was collected at forty-three feet (43'). Sample W3-01-38FT was collected at thirty-eight feet (38') because this is the original depth of Well 3. Sample W3-02-43FT was collected at forty-three feet (43') in order to determine whether or not contamination, if any, found in the sample taken at thirty-eight feet (38') had migrated. Analyses performed on these samples were: 6010 (Total Metals), Reactivity, Corrosivity, Ignitability, TPH, 8240 (Volatile Organics), 8270 (Semivolatile Organics), SPLP Barium, and TCLP Barium.

Analytical results of the samples collected from this well were evaluated against 40 CFR Part 261 and 20 NMAC 6.2.3103. Based on the evaluation of this analytical data (ref. Attachment 3) the soil is non-hazardous and there is no risk to human health or the environment due to contamination associated with this well. Therefore, it is the recommendation of Star Tool Company that no further investigative action be taken nor remediation required. In addition, approximately two and a half feet of soil and lava rock was removed from the top of Well 3 and it was capped with concrete (ref. Attachment 3, photos 10 & 12). Also, investigative boring W3-IB was plugged with hydrated bentonite chips and capped with concrete (ref. Attachment 4, photos 14 & 15). As a result, both Well 3 and investigative boring W3-IB have been rendered unavailable for future use and are considered closed by Star Tool Company.

**D. WELL INVESTIGATION SUMMARY**

In conclusion, all Class V wells at the Star Tool Facility located at 1000 West County Road, Hobbs, NM 88240 have been fully investigated to determine nature and extent of environmental contamination. Through this investigation it was determined that WQCC Groundwater Standards 20 NMAC 6.2.3103 have not been exceeded, the soil is non-hazardous, and there is no risk to human health or the environment due to the subject wells. All three Class V wells and the associated investigative borings have been plugged with hydrated bentonite chips and/or capped with concrete thereby rendering them unavailable for future use (ref. Attachment 4, photos 4, 5, 8, 11, 12, 14, 15, 16, & 17). In addition, Star Tool Company considers the wells officially closed as of Thursday, June 19, 1997.



**DISCHARGE PLAN GW-076**  
**CORRECTIVE ACTION REPORT**  
**STAR TOOL COMPANY**  
**August 11, 1997**

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**V. CHEMICAL STORAGE AND LABELING**

Star Tool has inspected all chemical storage areas to ensure:

1. All drums and other containers such as sacks, buckets, etc. containing materials other than fresh water are stored on an impermeable pad or curb type containment.
2. All onsite empty containers are stored on their sides with the bungs in place and lined up on a horizontal plane.
3. All drums and chemical containers are clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill, or ignite.

All chemical storage areas meet the conditions specified above.

**VI. WASTE FILTER DISPOSAL**

Waste oil filters generated by Star Tool Company are drained for at least 30 days at the facility then retrieved and disposed of by Waste Management of Hobbs, NM. This waste has been profiled and accepted for disposal by Waste Management as non-hazardous waste. Approximately 40 to 50 waste oil filters per month are disposed of by Waste Management. (Ref. Attachment 5)

Waste paint filters generated by Star Tool Company are retrieved from the facility by Waste Management. Waste Management has profiled and accepted these filters for disposal as a non-hazardous waste. Approximately 20 to 30 waste paint filters per month are retrieved and disposed of by Waste Management. (Ref. Attachment 5)

**VII. FUEL ISLAND IMPERMEABLE LINER**

Star Tool Company has installed an impermeable concrete liner/curb type containment under the fuel island. Both the retaining walls and the floor are concrete. The approximate holding capacity of this secondary containment is 17,622 gallons while the capacity of the largest tank within the walls of the containment area is 10,000 gallons. Therefore, this secondary containment system meets the requirement established by the OCD for secondary containment systems to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks.

**VIII. WASTE WATER RECYCLE SYSTEM**

Star Tool Company has installed a waste water recovery and recirculating system as approved by the OCD. (Ref. Attachment 6) This system recovers, filters, and recirculates all waste water generated by Star Tool. The waste water is collected in sumps, transferred to a holding tank, processed through an oil/water separator, filter pumps, sand filters, a chlorinator, to the pressure tank and back to the steamers. It should be noted that there are two sets of sand filters; one filters water going to the steamers and the other continuously filters water in the holding tank.



**ATTACHMENT 1**

(Waste Water Disposal Authorizations & Analytical Data)



District II - (505) 748-1283  
 811 S. First  
 Artesia, NM 88210  
 District III - (505) 334-6178  
 1000 Rio Brazos Road  
 Aztec, NM 87410  
 District IV - (505) 827-7131

Oil Conservation Div  
 2040 South Pacheco Street  
 Santa Fe, New Mexico 87505  
 (505) 827-7131

Submi  
 Ph  
 to at  
 Disu

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: <input type="checkbox"/> Non-Exempt: <input checked="" type="checkbox"/>	4. Generator Star Tool
Verbal Approval Received: Yes <input type="checkbox"/> No <input type="checkbox"/>	5. Originating Site Hobbs yard
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Sonny's
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1000 west County Road Hobbs, NM	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from Generator; one certificate per job. (B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis PROVE the material is not hazardous and the Generator's certification of origin. No waste classified hazardous listing or testing will be approved.	

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

**RECEIVE**

JUN 17 1997

BRIEF DESCRIPTION OF MATERIAL:

Environmental Bureau  
 Oil Conservation Div

The following analytical is from the Star Tool Hobbs yard. The waste was generated by washing / steam cleaning oil field rental tools. I have included a certificate of waste and a chain of custody.

OLD HOBBS  
 OFFICE  
 JUN 18 1997  
**RECEIVED**

OLD HOBBS  
 OFFICE  
 JUN 18 1997  
**RECEIVED**

Estimated Volume 8400 gallons of waste sludge and 21000 gallons of waste water  
 of Known Volume (to be entered by the operator at the end of the haul)

SIGNATURE Billie Charo TITLE Office Manager DATE 06/10/97  
Waste Management Facility Authorized Agent  
 TYPE OR PRINT NAME Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)  
 APPROVED BY: [Signature] TITLE ENR DATE 6/11/97  
 APPROVED BY: [Signature] TITLE Env Geology's DATE 6/14/97

06-19-1997 09:51AM  
 District II - (505) 748-1263  
 S. First  
 Alameda, NM 88210  
 District III - (505) 334-6178  
 1000 Rio Brazos Road  
 Artes, NM 87410  
 District IV - (505) 827-7131

CONTROLLED RECOVERY INC  
 Energy Minerals and Natural Resources Department  
 Oil Conservation Division  
 2040 South Pacheco Street  
 Santa Fe, New Mexico 87505  
 (505) 827-7131

F.03  
 Original  
 Submit  
 Plus  
 to app  
 Distric

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: <input type="checkbox"/> Non-Exempt: <input checked="" type="checkbox"/>	4. Generator Star Tool
Verbal Approval Received: Yes <input type="checkbox"/> No <input type="checkbox"/>	5. Originating Site Hobbs Yard
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Sonny's
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1000 W. County Rd.	Hobbs New Mexico
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. <input checked="" type="radio"/> 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.

**RECEIVED**

JUN 13 1997

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Star Tool Company Hobbs yard. The waste was generated by oil field rental tool washing / steam cleaning. I have included certificate of waste and a chain of custody.

Environmental Bureau  
 Oil Conservation Division

REQUESTED ADDITIONAL INFO TO CLARIFY I.D. ON SUMP - SEE ATTACHED! IS OIL IN SUMP PART OF SAMPLE?

RECEIVED

UCC HOBBS  
 JUN 8 1997  
 RECEIVED

Estimated Volume 30 cubic yards of sludge and 21,000 gallons of water by Known Volume (to be entered by the operator at the end of the haul) \_\_\_\_\_ by \_\_\_\_\_

SIGNATURE: Billie Charo TITLE: Office Manager DATE: 06/02/97  
Waste Management Facility/Authorized Agent  
 TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505) 393-1079

(This space for State Use)

APPROVED BY: [Signature] TITLE: ENUN ENGR DATE: 6/10/97  
 APPROVED BY: [Signature] TITLE: Environmental Geologist DATE: 6/13/97

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

6/10/97

TO: Chris Stapp, Nickell Environmental

FROM: Blair Leftwich, Director *BL*

RE: RCI on Sludge Sample T73986, Tank, Sta.501-1, Hobbs, NM, sampling date  
5/19/97

The sample was originally screened for reactive sulfide and cyanide utilizing Drager tubes. The sample showed 640 ppm sulfide and 240 ppm cyanide. Because there are possible interferences for cyanide and sulfide utilizing Drager tubes and because there were no known sources, the sample was analyzed for cyanide and sulfide utilizing EPA methods 4500-S2-E and EPA 335.2. These methods have less interferences than previous methods, and resulted in sulfides of <8.0 ppm and cyanides of 0.8 ppm.



**TRACE ANALYSIS, INC.**

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

6/10/97

TO: Chris Stapp, Nickell Environmental

FROM: Blair Leftwich, Director *BL*

RE: TCLP analysis of sludges bearing free oil

Sludges containing free oil are extracted for TCLP constituents by mixing the sludge and oil into a homogeneous mixture prior to removing a sample for TCLP extraction. The mixture is extracted as a whole, without separation, consequently, the extract contains contributions from both the oil and the sludge.



**TRACE ANALYSIS, INC.**

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
Lubbock, Texas 79424  
806•794•1296  
FAX 806•794•1298

**ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL**  
Attention: Terry James  
19 Barry Road  
Midland, TX 79706

May 29, 1997  
Receiving Date: 05/21/97  
Sample Type: Sludge  
Project No: Sta. 501-1  
Project Location: Hobbs, New Mexico

Extraction Date: 05/27/97  
Analysis Date: 05/27/97  
Sampling Date: 05/19/97  
Sample Condition: Intact & Cool  
Sample Received by: JH  
Project Name: Facility Assmnt &  
Sampling

SAMPLE NO.	FIELD CODE	DRO* (mg/kg)
T73985	Sump	58,000
T73986	Tank	5,400
QC	Quality Control	236

Reporting Limit 50

\* DRO - Diesel Range Organics

METHODS: EPA SW 5030, 8015B.  
CHEMIST: DH



Director, Dr. Blair Leftwich

5-29-97

DATE



6701 Aberdeen Avenue  
Lubbock, Texas 79424  
806•794•1296  
FAX 806•794•1298

**ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL**  
Attention: Terry James  
19 Barry Road  
Midland, TX 79706

May 29, 1997  
Receiving Date: 05/21/97  
Sample Type: Sludge  
Project No: Sta. 501-1  
Project Location: Hobbs, New Mexico

Extraction Date: 05/22/97  
Analysis Date: 05/23/97  
Sampling Date: 05/19/97  
Sample Condition: I & C  
Sample Received by: JH  
Project Name: Facility Assmnt.  
& Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T73985 Sump	QC	RPD	%EA	%IA
Vinyl chloride	0.2	0.05	ND	0.083	1	85	83
1,1-Dichloroethene	0.7	0.05	ND	0.092	1	110	92
Methyl Ethyl Ketone	200.0	0.5	ND	0.102	13	110	102
Chloroform	6.0	0.05	ND	0.093	4	99	93
1,2-Dichloroethane	0.5	0.05	ND	0.096	5	94	96
Benzene	0.5	0.05	ND	0.097	5	99	97
Carbon Tetrachloride	0.5	0.05	ND	0.094	4	103	94
Trichloroethene	0.5	0.05	ND	0.094	6	102	94
Tetrachloroethene	0.7	0.05	ND	0.094	6	105	94
Chlorobenzene	100.0	0.05	ND	0.096	7	103	96
1,4-Dichlorobenzene	7.5	0.05	ND	0.095	7	106	95

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	93

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.  
CHEMIST: RP



\_\_\_\_\_  
Director, Dr. Blair Leftwich

5-29-97

\_\_\_\_\_  
DATE



**TRACE ANALYSIS, INC.**

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
 806•794•1296  
 FAX 806•794•1298

ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Terry James  
 4113 W. Industrial.  
 Midland TX 79703

Date: May 27, 1997  
 Date Rec: 5/21/97  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9705000362  
 Sampling Date: 5/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: JH

TCLP Vol in Sludge (mg/L)	EPA Reporting		T73986 Tank	QC	RPD	%EA	%IA
	Limit	Limit					
Vinyl Chloride	0.2	0.05	ND	0.0	1	85	8
1,1-Dichloroethene	0.7	0.05	ND	0.0	1	110	9
Methyl Ethyl Ketone	200.0	0.05	ND	0.1	14	110	10
Chloroform	6.0	0.05	ND	0.0	4	99	9
1,2-Dichloroethane	0.5	0.05	ND	0.0	5	94	9
Benzene	0.5	0.05	ND	0.0	4	99	9
Carbon Tetrachloride	0.5	0.05	ND	0.0	4	103	9
Trichloroethene	0.5	0.05	ND	0.0	5	102	9
Tetrachloroethane	0.7	0.05	ND	0.0	7	105	9
Chlorobenzene	100.0	0.05	ND	0.0	7	103	9
1,4-Dichlorobenzene	7.5	0.05	ND	0.0	7	106	9

ND = Not Detected

% RECOVERY

Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	92

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
TCLP Vol	EPA 1311	5/22/97	EPA 8260	5/23/97	RP	0.1 ea	100 ea

*BL*  
 Director, Dr. Blair Leftwich

*5-27-97*  
 Date



A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

May 29, 1997

Receiving Date: 05/21/97

Sample Type: Sludge

Project No: Sta. 501-1

Project Location: Hobbs, New Mexico

**ANALYTICAL RESULTS FOR**

**NICKELL ENVIRONMENTAL**

Attention: Terry James

19 Barry Road

Midland, TX 79706

Extraction Date: 05/21/97

Analysis Date: 05/27/97

Sampling Date: 05/19/97

Sample Condition: I & C

Sample Received by: JH

Project Name: Facility

Assmnt & Sampling

**TCLP Semi-Volatiles  
(mg/L)**

**EPA  
Limit**

**Reporting  
Limit\***

**T73985  
Sump**

**QC**

**RPD**

**%EA**

**%IA**

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T73985 Sump	QC	RPD	%EA	%IA
Pyridine	5.0	0.5	ND	88	1	36	110
1,4-Dichlorobenzene	7.5	0.5	ND	80	12	45	100
o-Cresol	200.0	0.5	ND	74	15	55	93
m,p-Cresol	200.0	0.5	ND	74	15	51	93
Total Cresol	200.0	0.5	ND	---	---	---	---
Hexachloroethane	3.0	0.5	ND	74	11	49	93
Nitrobenzene	2.0	0.5	ND	77	10	60	96
Hexachlorobutadiene	0.5	0.05	ND	76	13	56	95
2,4,6-Trichlorophenol	2.0	0.5	ND	79	13	65	99
2,4,5-Trichlorophenol	400.0	0.5	ND	78	13	67	98
2,4-Dinitrotoluene	0.13	0.04	ND	79	9	68	99
2,4-D	10.0	0.5	ND	83	3	49	104
Hexachlorobenzene	0.13	0.05	ND	78	4	80	98
2,4,5-TP	1.0	0.5	ND	76	2	53	95
Pentachlorophenol	100.0	0.5	ND	74	5	79	93
Chlordane	0.03	0.001	ND	0.053	23	34	106
Toxaphene	0.5	0.05	ND	2.09	1	117	105
Lindane	0.4	0.001	ND	0.0265	40	30	106
Heptachlor	0.008	0.001	ND	0.027	35	34	108
Heptachlor epoxide	0.008	0.001	ND	0.026	35	34	104
Total Heptachlor	0.008	0.001	ND	---	---	---	---
Endrin	0.02	0.001	ND	0.054	30	40	108
Methoxychlor	10.0	0.1	ND	0.028	28	42	112
<b>Surrogates</b>	<b>% RECOVERY</b>						
2-Fluorophenol	82						
Phenol-d6	82						
Nitrobenzene-d5	92						
2-Fluorobiphenyl	94						
2,4,6-Tribromophenol	82						
Terphenyl-d14	108						

\*NOTE: Elevated reporting limits due to sample matrix interference.

Methods: EPA SW 846-1311, 8270, 8080.

CHEMIST: HC/CC/MB

ND - Not Detected

Director, Dr. Blair Leftwich

5-29-97

DATE



**TRACE ANALYSIS, INC.**

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

May 29, 1997

Receiving Date: 05/21/97

Sample Type: Sludge

Project No: Sta. 501-1

Project Location: Hobbs, New Mexico

**ANALYTICAL RESULTS FOR**

**NICKELL ENVIRONMENTAL**

Attention: Terry James

19 Barry Road

Midland, TX 79706

Extraction Date: 05/21/97

Analysis Date: 05/27/97

Sampling Date: 05/19/97

Sample Condition: I & C

Sample Received by: JH

Project Name: Facility

Assmnt & Sampling

**TCLP Semi-Volatiles  
(mg/L)**

**EPA  
Limit**

**Reporting  
Limit\***

**T73986  
Tank**

**QC**

**RPD**

**%EA**

**%IA**

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T73986 Tank	QC	RPD	%EA	%IA
Pyridine	5.0	1.25	ND	88	1	36	110
1,4-Dichlorobenzene	7.5	1.25	ND	80	12	45	100
o-Cresol	200.0	1.25	ND	74	15	55	93
m,p-Cresol	200.0	1.25	ND	74	15	51	93
Total Cresol	200.0	1.25	ND	---	---	---	---
Hexachloroethane	3.0	1.25	ND	74	11	49	93
Nitrobenzene	2.0	1.25	ND	77	10	60	96
Hexachlorobutadiene	0.5	0.125	ND	76	13	56	95
2,4,6-Trichlorophenol	2.0	1.25	ND	79	13	65	99
2,4,5-Trichlorophenol	400.0	1.25	ND	78	13	67	98
2,4-Dinitrotoluene	0.13	0.1	ND	79	9	68	99
2,4-D	10.0	1.25	ND	83	3	49	104
Hexachlorobenzene	0.13	0.125	ND	78	4	80	98
2,4,5-TP	1.0	0.375	ND	76	2	53	95
Pentachlorophenol	100.0	1.25	ND	74	5	79	93
Chlordane	0.03	0.001	ND	0.053	23	34	106
Toxaphene	0.5	0.05	ND	2.09	1	117	105
Lindane	0.4	0.001	ND	0.0265	40	30	106
Heptachlor	0.008	0.001	ND	0.027	35	34	108
Heptachlor epoxide	0.008	0.001	ND	0.026	35	34	104
Total Heptachlor	0.008	0.001	ND	---	---	---	---
Endrin	0.02	0.001	ND	0.054	30	40	108
Methoxychlor	10.0	0.1	ND	0.028	28	42	112

**Surrogates**

**% RECOVERY**

2-Fluorophenol	84
Phenol-d6	86
Nitrobenzene-d5	93
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	73
Terphenyl-d14	109

**\*NOTE: Elevated reporting limits due to sample matrix interference.**

Methods: EPA SW 846-1311, 8270, 8080.

CHEMIST: HC/CC/MB

ND - Not Detected

Director, Dr. Blair Leftwich

5-29-97

DATE



A Laboratory for Advanced Environmental Research and Analysis

# TRACE ANALYSIS, INC.

6701 Aberdeen Avenue

Lubbock, Texas 79424 806•794•1296

FAX 806•794•1298

ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL

Attention: Terry James

19 Barry Road

Midland, TX 79706

May 29, 1997

Receiving Date: 05/21/97

Sample Type: Sludge

Project No: Sta. 501-1

Project Location: Hobbs, New Mexico

Extraction Date: 05/21/97

Analysis Date: 05/28/97

Sampling Date: 05/19/97

Sample Condition: Intact & Cool

Sample Received by: JH

Project Name: Facility Assmnt &

Sampling

## TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
EPA LIMIT =									
T73985	Sump	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T73986	Tank	<0.10	<0.10	<0.02	<0.05	<0.10	<1.0	<0.20	<0.01
QC	Quality Control	<0.10	<0.10	<0.02	<0.05	<0.10	<1.0	1.5	<0.01
		4.9	4.8	5.0	5.1	4.9	0.9	5.1	0.057
Reporting Limit									
		0.10	0.10	0.02	0.05	0.10	1.0	0.20	0.01
RPD									
	% Extraction Accuracy	2	1	2	2	1	2	1	2
	% Instrument Accuracy	89	84	84	89	87	82	92	114
		97	96	99	101	98	96	102	93

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: DM

METHODS: EPA SW 846-1311, 6010, 7470.

TCLP METALS SPIKE: 2.0 mg/L As, Se, Ba, Cd, Cr, Pb; 1.0 mg/L Ag; 0.05 mg/L Hg.

TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

Date

5-29-97



# TRACE ANALYSIS, INC.

6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR  
 NICKELL ENVIRONMENTAL  
 Attention: Terry James  
 19 Barry Road  
 Midland, TX 79706

Prep Date: 05/27/97  
 Analysis Date: 05/27/97  
 Sampling Date: 05/19/97  
 Sample Condition: Intact & Cool  
 Sample Received by: JH  
 Project Name: Facility Assmnt & Sampling

May 29, 1997  
 Receiving Date: 05/21/97  
 Sample Type: Sludge  
 Project No: Sta. 501-1  
 Project Location: Hobbs, New Mexico

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	---	<2 >12.5	---
T73985	Sump	Non-reactive	10	30	Non-corrosive	10.3	Nonignitable
T73986	Tank	Non-reactive	<8.0	0.8	Non-corrosive	7.9	Nonignitable
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	---	---	---	---
% Instrument Accuracy		---	---	---	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1, 4500-S2-E; EPA 335.2.  
 CHEMIST: JT/RC

*RB*  
 Director, Dr. Blair Leftwich  
 DATE: 5-29-97

73985-84

362

# TraceAnalysis, Inc.

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

## CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

TERRY JAMES

Phone #: (915) 888-3334

FAX #: (915) 520-3844

Company Name & Address:

NICKEL ENVIRONMENTAL CORP. 19 BARRY RD. MIDLAND, TX 79706

Project #:

STA. 501-1

Project Name:

FACILITY ASSMNT. + SAMPLING

Project Location:

Hobbs, New Mexico

Sampler Signature:

*Chir E. Stepp*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX			PRESERVATIVE METHOD			SAMPLING		
				WATER	AIR	SLUDGE	HCL	HNO3	ICE	DATE	TIME	
73985	SUMP	2				X		X	NONE		5/19	2:30
86	TANK	2				X		X			5/19	2:30

ANALYSIS REQUEST		SPECIAL HANDLING
TPH	8015 DIESEL	
Total Metals Ag As Ba Cd Cr Pb Hg Se	X	
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	X	
TCLP Volatiles	X	
TCLP Semi Volatiles	X	
RCI	X	
8240 / 8260		
8270		

### REMARKS

Relinquished by: <i>Chir E. Stepp</i>	Date: 5/20/97	Time: 2:10	Received by: <i>Aileen Shelton</i>	Date: 5/20/97	Time: 2:00 PM
Relinquished by: <i>Aileen Shelton</i>	Date: 5/20/97	Time: 5:00 PM	Received by: <i>Aileen Shelton</i>	Date: 5/20/97	Time: 9:30 AM
Relinquished by: <i>Aileen Shelton</i>	Date: 5/20/97	Time: 5:00 PM	Received at Laboratory by: <i>Aileen Shelton</i>	Date: 5/21/97	Time: 9:30 AM

F 5-28-97  
5-90H

*W*  
*6-2*

*Shipped thru ground*

*4*

*4 samples - HS*

*11/1/95*

6701 Aberdeen Avenue  
Lubbock, Texas 79424  
806•794•1296  
FAX 806•794•1298

ANALYTICAL RESULTS FOR  
Nickell Environmental  
Attention Terry James  
4113 W. Industrial,  
Midland TX 79703

Date: May 05, 1997  
Date Rec: 4/29/97  
Project: STA.501-1  
Proj Name: Facility Assessment & Sampling  
Proj Loc: Hobbs, NM

Lab Receiving # : 9704000522  
Sampling Date: 4/25/97  
Sample Condition: Intact and Cool  
Sample Received By: JH

TA#	Field Code	MATRIX	GRO* (mg/L)
T72496	WW-1	Water	11.3
QC			1
RPD			10
% Extraction Accuracy:			81
% Instrument Accuracy:			98

Reporting Limit:

0.1

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
8015G	EPA 5030	4/30/97	EPA 8015B	4/30/97	DH	1	1

\* Gasoline Range Organics

Director, Dr. Blair Leftwich

5-5-97

Date



A Laboratory for Advanced Environmental Research and Analysis

# TRACE ANALYSIS, INC.

5701 Abercree Avenue  
 Lubbock, Texas 79424  
 836-794-1296  
 FAX 806-794-1238

ANALYTICAL RESULTS FOR  
 NICKELL ENVIRONMENTAL CORP.  
 Attention: Terry James  
 #19 Barry Road  
 Midland, TX 79706

May 1, 1997  
 Receiving Date: 04/29/97  
 Sample Type: Water  
 Project No: STA.501-1  
 Project Location: Hobbs, NM

Extraction Date: 04/29/97  
 Analysis Date: 05/01/97  
 Sampling Date: 04/25/97  
 Sample Condition: I & C  
 Sample Received by: JH  
 Project Name: Facility Assmnt  
 & Sampling

## TCLP METALS (mg/L)

TAF	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T72496	SW-1	<0.10	<0.10	<0.02	<0.05	<0.10	<0.05	<0.20	<0.01
QC	Quality Control	5.0	5.0	5.0	5.1	4.9	1.02	5.0	0.0048
	Reporting Limit	0.10	0.10	0.02	0.05	0.10	0.05	0.20	0.01
RPD		1	2	3	2	5	25	3	1
	% Extraction Accuracy	95	98	98	77	93	90	101	100
	% Instrument Accuracy	99	101	100	101	97	102	100	96

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR  
 METHODS: EPA SW 846-1311, 6010, 7470.  
 TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.15 mg/L Ag; 0.05 mg/L Hg.  
 TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.005 mg/L Hg.

*Blair Leftwich*  
 Director, Dr. Blair Leftwich  
 Date: 5/1/97

# TRACE ANALYSIS, INC.

6721 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL CORP.  
Attention: Terry James  
#19 Barry Road  
Midland, TX 79706

Prep Date: 04/29/97  
Analysis Date: 04/29/97  
Sampling Date: 04/25/97  
Sample Condition: Intact & Cool  
Sample Received by: JH  
Project Name: Facility Assessment  
& Sampling

May 1, 1997  
Receiving Date: 04/29/97  
Sample Type: Water  
Project No: STA.501-1  
Project Location: Hobbs, NM

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	FLASHPOINT (° F)
-----	------------	------------	----------------	----------------	-------------	-----------	------------------

T72496	EW-1	Non-reactive	<10	<2.5	Non-corrosive	<2	>140° F
QC	Quality Control	---	---	---	---	7.7	>150
		---	---	---	---	7.0	---

RPD  
% Extraction Accuracy  
% Instrument Accuracy

0	0	0	0	0	100
---	---	---	---	---	---
---	---	---	---	---	---

METHODS: EPA SW 846-2.1.1.3, 2.1.2, 1010.  
CHEMIST: JT

Director, Dr. Blair Leftwich

5/1/97  
DATE

6701 Aberdeen Avenue

Lubbock, Texas 79424

806•794•1296

FAX 806•794•1298

May 1, 1997

Receiving Date: 04/29/97

Sample Type: Water

Project No: STA.501-1

Project Location: Hobbs, NM

TCLP Semi-Volatiles  
(mg/L)

**ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL CORP.**

Attention: Terry James

#17 Barry Road

Midland, TX 79706

Extraction Date: 04/30/97

Analysis Date: 04/30/97

Sampling Date: 04/25/97

Sample Condition: I & C

Sample Received by: JH

Project Name: Facility Assmt

& Sampling

	EPA Limit	Reporting Limit*	T72496 WW-1	QC	RPD	REA	VIA
Pyridine	5.0	0.5	ND	89	19	13	111
1,4-Dichlorobenzene	7.5	0.5	ND	84	3	43	105
o-Cresol	200.0	0.5	ND	77	9	48	96
m,p-Cresol	200.0	0.5	ND	75	8	45	94
Total Cresol	200.0	0.5	ND	---	---	---	---
Hexachloroethane	3.0	0.5	ND	79	2	45	99
Nitrobenzene	2.0	0.5	ND	74	4	51	93
Hexachlorobutadiene	0.5	0.1	ND	80	5	49	100
2,4,6-Trichlorophenol	2.0	0.5	ND	78	3	48	98
2,4,5-Trichlorophenol	400.0	0.5	ND	81	4	56	101
2,4-Dinitrotoluene	0.13	0.1	ND	82	3	58	103
2,4-D	10.0	0.5	ND	85	8	46	106
Hexachlorobenzene	0.13	0.1	ND	85	3	86	106
2,4,5-TP	1.0	0.5	ND	86	6	45	108
Pentachlorophenol	100.0	0.5	ND	80	4	72	100
Chlordane	0.03	0.02	ND	0.0515	2	89	103
Toxaphene	0.5	0.5	ND	1.98	39	65	99
Lindane	0.4	0.02	ND	0.025	0	84	100
Heptachlor	0.008	0.002	ND	0.025	0	78	100
Heptachlor epoxide	0.008	0.002	ND	0.025	0	84	100
Total Heptachlor	0.008	0.02	ND	---	---	---	---
Endrin	0.02	0.02	ND	0.050	2	81	100
Methoxychlor	10.0	2.0	ND	0.25	0	92	100
Surrogates	% RECOVERY						
2-Fluorophenol	84						
Phenol-d6	88						
Nitrobenzene-d5	92						
2-Fluorobiphenyl	98						
2,4,6-Tribromophenol	108						
Terphenyl-d14	118						

\*NOTE: Elevated reporting limits due to sample matrix interference.

Methods: EPA SW 846-1311, 8270, 8080.

CHEMIST: HC/CC/MB

ND - Not Detected

*[Signature]*  
Director, Dr. Blair Leftwich

5/1/97  
DATE



**TRACEANALYSIS, INC.**

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
 806•794•1296  
 FAX 806•794•1298

ANALYTICAL RESULTS FOR  
 NICKELL ENVIRONMENTAL CORP.  
 Attention: Terry James  
 #19 Barry Road  
 Midland, TX 79706

May 1, 1997  
 Receiving Date: 04/29/97  
 Sample Type: Water  
 Project No: STA.501-1  
 Project Location: Hobb, NM

Extraction Date: 04/30/97  
 Analysis Date: 04/30/97  
 Sampling Date: 04/25/97  
 Sample Condition: I & C  
 Sample Received by: JH  
 Project Name: Facility Assmnt  
 & Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T72496 WW-1	QC	RPD	%EA	%IA
Vinyl chloride	0.2	0.05	ND	0.112	2	81	112
1,1-Dichloroethene	0.7	0.05	ND	0.099	1	101	99
Methyl Ethyl Ketone	200.0	0.05	1.71	0.114	1	94	114
Chloroform	6.0	0.05	ND	0.097	0	103	97
1,2-Dichloroethane	0.5	0.05	ND	0.097	1	94	97
Benzene	0.5	0.05	ND	0.100	2	101	100
Carbon Tetrachloride	0.5	0.05	ND	0.099	1	112	99
Trichloroethane	0.5	0.05	ND	0.101	2	106	101
Tetrachloroethane	0.7	0.05	ND	0.102	2	106	102
Chlorobenzene	100.0	0.05	ND	0.103	1	103	103
1,4-Dichlorobenzene	7.5	0.05	ND	0.105	0	98	105

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	93
4-Bromofluorobenzene	92

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.

CHEMIST: RP

*[Signature]*  
 Director, Dr. Blair Leftwich

5/1/97  
 DATE

# Trace Analysis, Inc.

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

## CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: *Ken Jones* Phone #: 413/523 4700 FAX #: 915/523 3844

Company Name & Address: *Wickel Env Corp #15 Bear Rd Midland, TX 79701*

Project #: *STA. 501-1* Project Name: *Training Assessment - Sampling*

Project Location: *Hobbs Ave Midland* Sampler Signature: *[Signature]*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCL	HNO3	ICE	NONE	DATE	TIME	
	<i>10W-1</i>	<i>6</i>	<i>9/10</i>	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>			<i>4/25</i>	<i>3:00</i>
	<i>Fitti. -1</i>	<i>2</i>	<i>2</i>			<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			<i>4/25</i>	<i>2:00</i>

ANALYSIS REQUEST							SPECIAL HANDLING					
BTEX, MTBE	TPH	TPH 4015	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	Turn around # of days	Fax ASAP	Hold

REMARKS: *Turn around ASAP on 10W-1*  
*Normal Turnaround on Fitti. -1*

Received by: *[Signature]* Date: *4/28/97* Time: *5:00PM*  
 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received at Laboratory by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

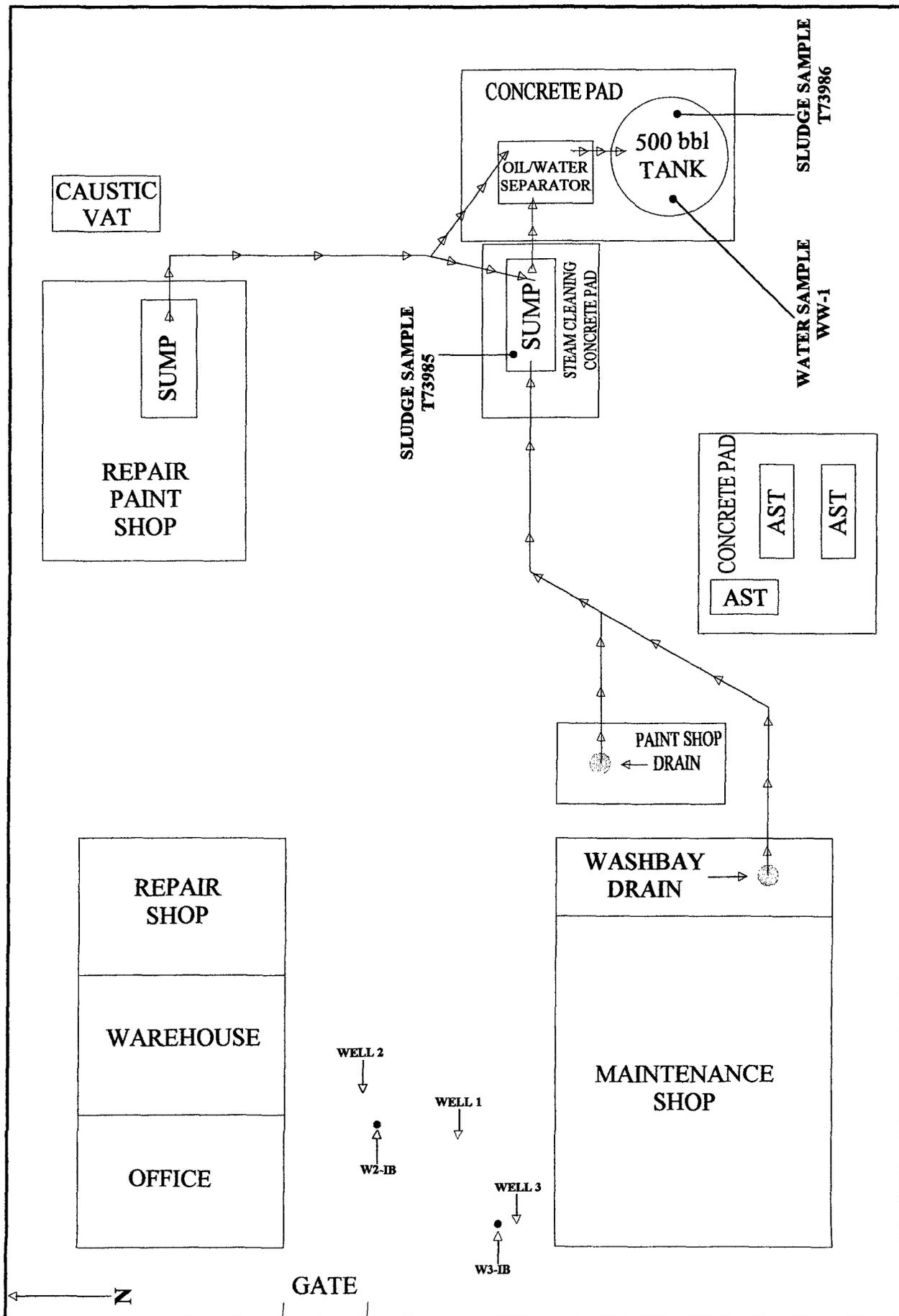
*4/28/97 Aberdeen*

*9 samples - 115*

**ATTACHMENT 2**

(Site Drawing)





STAR TOOL COMPANY  
 1000 W. COUNTY ROAD  
 HOBBS, NM 88240

**ATTACHMENT 3**  
(Well Investigation Analytical Data)



6701 Aberdeen Avenue  
Lubbock, Texas 79424  
806•794•1236  
FAX 806•794•1298

ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL  
Attention: Chris E. Stapp  
19 Bary Road  
Midland, TX 79706

August 05, 1997  
Receiving Date: 06/21/97  
Sample Type: Soil  
Project No: STA.501-1  
Project Location: Hobbs, NM

Extraction Date: 08/02/97  
Analysis Date: 08/04/97  
Sampling Date: 08/19/97  
Sample Condition: I & C  
Sample Received by: BL  
Project Name: Star Tool Well Investig.

TA#	FIELD CODE	SPLP Ba (mg/L)
T75938	W3-01-38FT	0.3
QC	Quality Control	5.3
REPORTING LIMIT		0.2
RPD		0
% Extraction Accuracy		130
% Instrument Accuracy		106

METHODS: EPA SW 846-1312, 6010.  
CHEMIST: RR  
SPLP Ba SPIKE: 2.0 mg/L SPLP Ba.  
SPLP Ba QC: 5.0 mg/L SPLP Ba.

Director, Dr. Blair Leftwich

8-5-97

DATE



**TRACE ANALYSIS, INC.**

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
 806•794•1296  
 FAX 806•794•1298

**ANALYTICAL RESULTS FOR  
 NICKELL ENVIRONMENTAL**  
 Attention: Chris E. Stapp  
 19 Bary Road  
 Midland, TX 79706

August 05, 1997  
 Receiving Date: 06/21/97  
 Sample Type: Soil  
 Project No: STA.501-1  
 Project Location: Hobbs, NM

Extraction Date: 08/02/97  
 Analysis Date: 08/04/97  
 Sampling Date: 06/19/97  
 Sample Condition: I & C  
 Sample Received by: BL  
 Project Name: Star Tool Well Investig.

TA#	FIELD CODE	SPLP Pb (mg/L)	SPLP Ba (mg/L)
T75934 QC	W1-01-30FT Quality Control	<0.05 <i>OK</i> 5.5	0.2 <i>OK</i> 5.3
REPORTING LIMIT		0.05	0.2
RPD			
% Extraction Accuracy		1	0
% Instrument Accuracy		118	130
		109	106

*TELL Pr*  
*0.05*

*0.05*

METHODS: EPA SW 846-1312, 6010.  
 CHEMIST: RR  
 SPLP Pb SPIKE: 2.0 mg/L SPLP Pb.  
 SPLP Pb QC: 5.0 mg/L SPLP Pb.  
 SPLP Ba SPIKE: 2.0 mg/L SPLP Ba.  
 SPLP Ba QC: 5.0 mg/L SPLP Ba.



Director, Dr. Blair Leftwich

*8-5-97*

DATE

6701 Aberdeen Avenue  
Lubbock, Texas 79424  
806•794•1296  
FAX 806•794•1298

**ANALYTICAL RESULTS FOR  
NICKEL ENVIRONMENTAL**  
Attention: Chris E. Stapp  
19 Bary Road  
Midland, TX 79706

August 05, 1997  
Receiving Date: 06/21/97  
Sample Type: Soil  
Project No: STA.501-1  
Project Location: Hobbs, NM

Extraction Date: 08/02/97  
Analysis Date: 08/04/97  
Sampling Date: 06/19/97  
Sample Condition: I & C  
Sample Received by: BL  
Project Name: Star Tool Well Investig.

TA#	FIELD CODE	TCLP Ba (mg/L)
	EPA LIMIT =	100.0
T75938	W3-01-38FT	2.1
QC	Quality Control	5.0
REPORTING LIMIT		0.2
RPD		10
% Extraction Accuracy		104
% Instrument Accuracy		99

*non-hazy*

METHODS: EPA SW 846-1311, 6010.  
CHEMIST: RR  
TCLP Ba SPIKE: 2.0 mg/L TCLP Ba.  
TCLP Ba QC: 5.0 mg/L TCLP Ba.

Director, Dr. Blair Leftwich

*8-5-97*

DATE



A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
Lubbock, Texas 79424  
806•794•1296  
FAX 806•794•1298

ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL  
Attention: Chris E. Stapp  
19 Barry Road  
Midland, TX 79706

July 29, 1997  
Receiving Date: 06/21/97  
Sample Type: Soil  
Project No: STA.501-1  
Project Location: Hobbs, NM

Sampling Date: 06/19/97  
Sample Condition: I & C  
Sample Received by: BL  
Project Name: Star Tool Well  
Investigation

RE: Metal Reporting Limits

Samples T75934-39 were originally digested 7/3/97 and analyzed 7/4/97 on a Perkin Elmer Mode 400 ICP. Due to an interference in the sample digest, possibly aluminum or minerals, the samples had to be diluted, resulting in high reporting limits. Some of the samples indicated a presence of heavy metals in relatively high levels. These high levels were probably due to a combination of interferences and a large multiplier due to the dilution factor. The samples were re-digested 7/6/97 and re-analyzed 7/6/97 using a Fisons ICP. The analyses did not have the previous interferences, showing no high levels of metals.



\_\_\_\_\_  
Director, Dr. Blair Leftwich

7-29-97

\_\_\_\_\_  
DATE



A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
 806•794•1296  
 FAX 806•794•1298

**ANALYTICAL RESULTS FOR  
 NICKELL ENVIRONMENTAL**  
 Attention: Chris E. Stapp  
 19 Barry Road  
 Midland, TX 79706

July 29, 1997  
 Receiving Date: 06/21/97  
 Sample Type: Soil  
 Project No: STA.501-1  
 Project Location: Hobbs, NM

Prep Date: 07/07/97  
 Analysis Date: 07/25/97  
 Sampling Date: 06/19/97  
 Sample Condition: I & C  
 Sample Received by: BL  
 Project Name: Star Tool Well  
 Investigation

TA#	FIELD CODE	TCLP Cr (mg/L)	TCLP Pb (mg/L)	TCLP Ba (mg/L)
T75934	EPA LIMIT =	5.0	5.0	100.0
	W1-01-30FT	<0.05	0.2	3.3
QC	Quality Control	5.0	5.0	5.2
REPORTING LIMIT		0.05	0.10 <i>no good</i> 0.05	0.20
RPD		3	3	3
% Extraction Accuracy		77	96	90
% Instrument Accuracy		99	100	104

METHODS: EPA SW 846-1311, 8010.  
 CHEMIST: RR  
 TCLP METALS SPIKE: 2.0 mg/L Cr, Pb, Ba.  
 TCLP METALS QC: 5.0 mg/L Cr, Pb, Ba.

  
 \_\_\_\_\_  
 Director, Dr. Blair Leftwich

7-29-97  
 \_\_\_\_\_  
 DATE



570: Aberdeen Avenue

Lubbock, Texas 79424

806-794-1296

FAX 806-794-1298

# TRACE ANALYSIS, INC.

ANALYTICAL RESULTS FOR  
NICKELL ENVIRONMENTAL

Attention: Chris E. Slapp  
19 Barry Road  
Midland, TX 79706

July 18, 1997

Receiving Date: 06/21/97

Sample Type: Soil

Project No: STA. 501-1

Project Location: Hobbs, NM

Extraction Date: 07/06/97

Analysis Date: 07/06/97

Sampling Date: 06/19/97

Sample Condition: I & C

Sample Received by: BL

Project Name: Star Tool Well Inves

### TOTAL METALS (mg/kg)

TA#	Field Code	As	Se	Cr	Cd	Pb	Ag	Ba	Hg
T75934	W1-01-30FT	<10	<10	12	<5.0	110	<5.0	840	<0.25
T75935	W1-02-35FT	<10	<10	<5.0	<5.0	<10	<5.0	65	<0.25
T75936	W2-01-38FT	<10	<10	<5.0	<5.0	<10	<5.0	160	<0.25
T75937	W2-02-43FT	<10	<10	<5.0	<5.0	<10	<5.0	290	<0.25
T75938	W3-01-38FT	<10	<10	<5.0	<5.0	<10	<5.0	1,800	<0.25
T75939	W3-02-43FT	<10	<10	<5.0	<5.0	<10	<5.0	52	<0.25
QC	Quality Control	5.1	5.1	5.1	5.1	4.9	1.0	4.8	0.0052

Reporting Limit

RPD

% Extraction Accuracy

% Instrument Accuracy

METHODS: EPA SW 846-3051, 6010, 7471.

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba, RR Hg: HC

TOTAL METALS SPIKE: 200 mg/kg As, Se, Cr, Cd, Pb, Ba: 4.0 mg/kg Ag; 2.5 mg/kg Hg.

TOTAL METALS QC: 5.0 mg/L Se, Cr, Cd, Pb, Ba, Ag; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

7/18/97  
Date



# TRACE ANALYSIS, INC.

6701 Abercree Avenue  
Lubbock, Texas 79424

806-794-1296  
FAX 806-794-1298

## ANALYTICAL RESULTS FOR NICKELL ENVIRONMENTAL

Attention: Chris E. Stapp  
19 Barry Road  
Midland, TX 79706

Extraction Date: 07/03/97  
Analysis Date: 07/04/97  
Sampling Date: 06/19/97  
Sample Condition: I & C  
Sample Received by: BL  
Project Name: Star Tool Well Inves

July 07, 1997  
Receiving Date: 06/21/97  
Sample Type: Soil  
Project No: STA. 501-1  
Project Location: Hobbs, NM

### TOTAL METALS (mg/kg)

TA#	Field Code	As	Se	Cr	Cd	Pb	Ag	Ba	Hg
T75934	W1-01-30FT	810	<500	<50	<20	<500	<50	<500	<0.25
T75935	W1-02-35FT	720	<500	<50	<20	500	<50	<500	<0.25
T75936	W2-01-38FT	<500	<500	<50	<20	<500	<50	<500	<0.25
T75937	W2-02-43FT	<500	<500	<50	<20	<500	<50	<500	<0.25
T75938	W3-01-38FT	24,000	20,000	<50	500	500	<50	<500	<0.25
T75939	W3-02-43FT	<500	<500	<50	<20	<500	<50	<500	<0.25
QC	Quality Control	5.1	4.9	5.3	4.9	4.8	1.0	5.0	0.0052
Reporting Limit		500*	500*	50*	20*	500*	50*	500*	0.25
RPD		5	20	14	7	0	0	6	4
% Extraction Accuracy		110	87	93	97	93	78	96	98
% Instrument Accuracy		102	98	106	98	96	100	96	104

\*NOTE: Elevated reporting limits due to sample matrix interference.

METHODS: EPA SW 846-3051, 6010, 7471.

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: HC

TOTAL METALS SPIKE: 150 mg/kg Se, Cr, Cd, Pb, Ba: 4.0 mg/kg Ag; 2.5 mg/kg Hg; 1,000 mg/kg As.

TOTAL METALS QC: 5.0 mg/L Se, Cr, Cd, Pb, Ba, Ag; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

7-7-97

Date

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
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ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial,  
 Midland TX 79703

Page 1 of 2

FAX 806•794•1798  
 Date: Jul 07, 1997  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75934 W1-01-30 PT

8240 compounds in Soil (ug/Kg)	Method Blank	Reporting Limit	Result
Dichlorodifluoromethane	ND	25	ND
Chloromethane	ND	25	ND
Vinyl chloride	ND	25	ND
Bromoethane	ND	125	ND
Chloroethane	ND	25	ND
Trichlorofluoromethane	ND	25	ND
1,1-Dichloroethene	ND	25	ND
Iodomethane	ND	125	ND
Carbon disulfide	ND	25	ND
Methylene chloride	ND	125	ND
trans-1,2-Dichloroethene	ND	25	ND
1,1-Dichloroethane	ND	25	ND
Vinyl acetate	ND	25	ND
2-Butanone	ND	1250	ND
Chloroform	ND	25	ND
1,1,1-Trichloroethane	ND	25	ND
1,2-Dichloroethane	ND	25	ND
Benzene	ND	25	ND
Carbon Tetrachloride	ND	25	ND
1,2-Dichloropropane	ND	25	ND
Trichloroethene	ND	25	ND
Bromodichloroethane	ND	25	ND
cis-1,3-Dichloropropene	ND	25	ND
4-Methyl-2-pentanone	ND	1250	ND
trans-1,3-Dichloropropene	ND	25	ND
Toluene	ND	50	ND
1,1,2-Trichloroethane	ND	25	ND
2-Hexanone	ND	1250	ND
Dibromochloromethane	ND	25	ND
Tetrachloroethane	ND	25	ND
Chlorobenzene	ND	25	ND
Ethylbenzene	ND	25	ND
m,p-Xylene	ND	50	ND
Bromoform	ND	25	ND
Styrene	ND	25	ND
o-Xylene	ND	25	ND
1,1,2,2-Tetrachloroethane	ND	25	ND
trans 1,4-Dichloro-2-butene	ND	125	ND
cis 1,4-Dichloro 2-butene	ND	125	ND
1,4-Dichlorobenzene	ND	50	ND
1,3-Dichlorobenzene	ND	50	ND
1,2-Dichlorobenzene	ND	50	ND

ND = Not Detected

\*Note: Elevated reporting limit due to sample matrix interferences.



A Laboratory for Advanced Environmental Research and Analysis

ANALYTICAL RESULTS FOR  
Nickell Environmental

Attention: Chris Stapp  
4113 W. Industrial.  
Midland TX 79703

Lab Receiving # : 9706000373  
Date Rec: 6/21/97  
Sampling Date: 6/19/97  
Sample Condition: Intact and Cool  
Sample Received By: BL

Date: Jul 07, 1997  
Project: STA.501-1  
Proj Name: Facility Assessment & Sampling  
Proj Loc: Hobbs, NM

T75934 w1-01-30 PT

8240 Quality Control	QC	% IA	RPD	% EA
Chloromethane	95	95		
Vinyl Chloride	97	97		
1,1-Dichloroethene	98	98	0	73
1,1-Dichloroethane	105	105		
Chloroform	105	105		
Benzene			2	81
1,2-Dichloropropane	102	102		
Trichloroethene			4	78
Toluene	96	96	1	84
Chlorobenzene	92	92	3	77
Ethylbenzene	92	92		
Bromoform	98	98		
1,1,2,2-Tetrachloroethane	117	117		

% RECOVERY

Dibromofluoromethane SURR	104
Toluene-d8 SURR	101
4-Bromofluorobenzene SURR	100

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (ug/L)	SPIKE: (ug/Kg)
8240	EPA 5030	6/23/97	EPA 8260	6/23/97	RP	100 ea	100 ea



Director, Dr. Blair Leftwich

7-7-97

Date

6701 Aberdeen Avenue  
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ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Page 1 of 2

FAX 806•794•1298  
 Date: Jul 07, 1997

Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

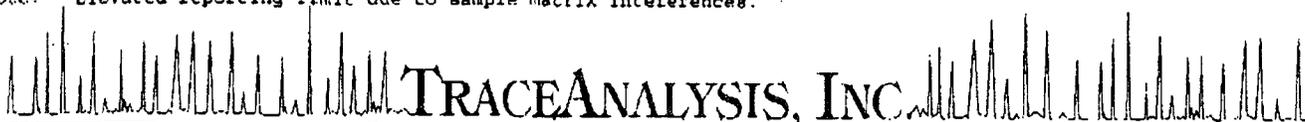
Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75935 W1-02-35 FT

8240 compounds in Soil (ug/Kg)	Method Blank	Reporting Limit	Result
Dichlorodifluoromethane	ND	25	ND
Chloromethane	ND	25	ND
Vinyl chloride	ND	25	ND
Bromoethane	ND	125	ND
Chloroethane	ND	25	ND
Trichlorofluoromethane	ND	25	ND
1,1-Dichloroethene	ND	25	ND
Iodomethane	ND	125	ND
Carbon disulfide	ND	25	ND
Methylene chloride	ND	125	ND
trans-1,2-Dichloroethene	ND	25	ND
1,1-Dichloroethane	ND	25	ND
Vinyl acetate	ND	25	ND
2-Butanone	ND	1250	ND
Chloroform	ND	25	ND
1,1,1-Trichloroethane	ND	25	ND
1,2-Dichloroethane	ND	25	ND
Benzene	ND	25	ND
Carbon Tetrachloride	ND	25	ND
1,2-Dichloropropane	ND	25	ND
Trichloroethene	ND	25	ND
Bromodichloroethane	ND	25	ND
cis-1,3-Dichloropropene	ND	25	ND
4-Methyl-2-pentanone	ND	1250	ND
trans-1,3-Dichloropropene	ND	25	ND
Toluene	ND	50	ND
1,1,2-Trichloroethane	ND	25	ND
2-Hexanone	ND	1250	ND
Dibromochloromethane	ND	25	ND
Tetrachloroethane	ND	25	ND
Chlorobenzene	ND	25	ND
Ethylbenzene	ND	25	ND
m_p-Xylene	ND	50	ND
Bromoform	ND	25	ND
Styrene	ND	25	ND
o-Xylene	ND	25	ND
1,1,2,2-Tetrachloroethane	ND	25	ND
trans 1,4-Dichloro-2-butene	ND	125	ND
cis 1,4-Dichloro-2-butene	ND	125	ND
1,4-Dichlorobenzene	ND	50	ND
1,3-Dichlorobenzene	ND	50	ND
1,2-Dichlorobenzene	ND	50	ND

ND = Not Detected

\*Note: Elevated reporting limit due to sample matrix interferences.



A Laboratory for Advanced Environmental Research and Analysis

ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jul 07, 1997  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75935 W1-02-35 FT

8240 Quality Control	QC	% IA	RPD	% EA
Chloromethane	95	95		
Vinyl Chloride	97	97		
1,1-Dichloroethene	98	98	0	73
1,1-Dichloroethane	105	105		
Chloroform	105	105		
Benzene			2	81
1,2-Dichloropropane	102	102		
Trichloroethene			4	78
Toluene	96	96	1	84
Chlorobenzene	92	92	3	77
Ethylbenzene	92	92		
Bromoform	98	98		
1,1,2,2-Tetrachloroethane	117	117		

% RECOVERY

Dibromofluoromethane SURR	105
Toluene-d8 SURR	99
4-Bromofluorobenzene SURR	100

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (ug/L)	SPIKE: (ug/Kg)
8240	EPA 5030	6/23/97	EPA 8260	6/23/97	RP	100 ea	100 ea



Director, Dr. Blair Leftwich

7-7-97

Date

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
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ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

FAX 806•794•1298  
 Date: Jul 07, 1997

Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

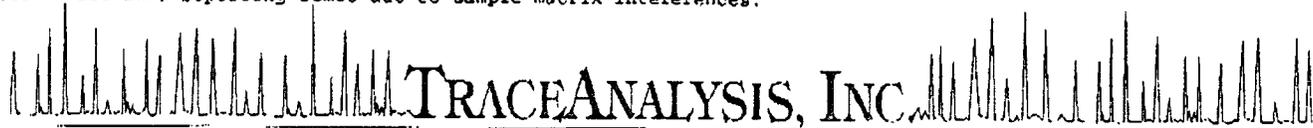
Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75936 WZ-01-38 FT

8240 compounds in Soil (ug/Kg)	Method Blank	Reporting Limit	Result
Dichlorodifluoromethane	ND	25	ND
Chloromethane	ND	25	ND
Vinyl chloride	ND	25	ND
Bromoethane	ND	125	ND
Chloroethane	ND	25	ND
Trichlorofluoromethane	ND	25	ND
1,1-Dichloroethene	ND	25	ND
Iodomethane	ND	125	ND
Carbon disulfide	ND	25	ND
Methylene chloride	ND	125	ND
trans-1,2-Dichloroethene	ND	25	ND
1,1-Dichloroethane	ND	25	ND
Vinyl acetate	ND	25	ND
2-Butanone	ND	1250	ND
Chloroform	ND	25	ND
1,1,1-Trichloroethane	ND	25	ND
1,2-Dichloroethane	ND	25	ND
Benzene	ND	25	ND
Carbon Tetrachloride	ND	25	ND
1,2-Dichloropropane	ND	25	ND
Trichloroethene	ND	25	ND
Bromodichloroethane	ND	25	ND
cis-1,3-Dichloropropene	ND	25	ND
4-Methyl-2-pentanone	ND	1250	ND
trans-1,3-Dichloropropene	ND	25	ND
Toluene	ND	50	ND
1,1,2-Trichloroethane	ND	25	ND
2-Hexanone	ND	1250	ND
Dibromochloromethane	ND	25	ND
Tetrachloroethane	ND	25	ND
Chlorobenzene	ND	25	ND
Ethylbenzene	ND	25	ND
m_p-Xylene	ND	50	ND
Bromoform	ND	25	ND
Styrene	ND	25	ND
o-Xylene	ND	25	ND
1,1,2,2-Tetrachloroethane	ND	25	ND
trans 1,4-Dichloro-2-butene	ND	125	ND
cis 1,4-Dichloro-2-butene	ND	125	ND
1,4-Dichlorobenzene	ND	50	ND
1,3-Dichlorobenzene	ND	50	ND
1,2-Dichlorobenzene	ND	50	ND

ND = Not Detected

\*Note: Elevated reporting limit due to sample matrix interferences.



A Laboratory for Advanced Environmental Research and Analysis

ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jul 07, 1997  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75936 W2-01-38 PT

8240 Quality Control	QC	% IA	RPD	% RA
Chloromethane	95	95		
Vinyl Chloride	97	97		
1,1-Dichloroethene	98	98	0	73
1,1-Dichloroethane	105	105		
Chloroform	105	105		
Benzene			2	81
1,2-Dichloropropane	102	102		
Trichloroethene			4	78
Toluene	96	96	1	84
Chlorobenzene	92	92	3	77
Ethylbenzene	92	92		
Bromoform	98	98		
1,1,2,2-Tetrachloroethane	117	117		

% RECOVERY

Dibromofluoromethane SURR	105
Toluene-d8 SURR	99
4-Bromofluorobenzene SURR	100

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (ug/L)	SPIKE: (ug/Kg)
8240	EPA 5030	6/23/97	EPA 8260	6/23/97	RP	100 ea	100 ea



Director, Dr. Blair Leftwich

7-7-97

Date

6701 Aberdeen Avenue  
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ANALYTICAL RESULTS FOR  
Nickell Environmental  
Attention: Chris Stapp  
4113 W. Industrial.  
Midland TX 79703

Page 1 of 2

FAX 806•794•1298  
Date: Jul 07, 1997

Project: STA.501-1  
Proj Name: Facility Assessment & Sampling  
Proj Loc: Hobbs, NM

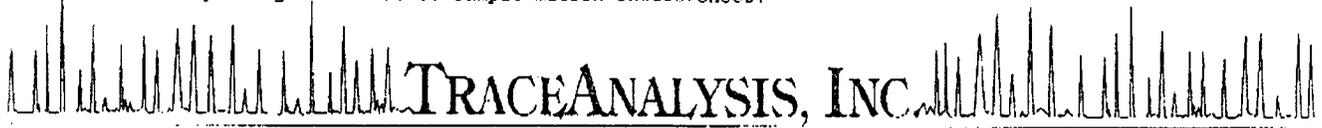
Lab Receiving # : 9706000373  
Date Rec: 6/21/97  
Sampling Date: 6/19/97  
Sample Condition: Intact and Cool  
Sample Received By: BL

T75937 N2-02-43 FT

8240 compounds in Soil (ug/Kg)	Method Blank	Reporting Limit	Result
Dichlorodifluoromethane	ND	25	ND
Chloromethane	ND	25	ND
Vinyl chloride	ND	25	ND
Bromoethane	ND	125	ND
Chloroethane	ND	25	ND
Trichlorofluoromethane	ND	25	ND
1,1-Dichloroethene	ND	25	ND
Iodomethane	ND	125	ND
Carbon disulfide	ND	25	ND
Methylene chloride	ND	125	ND
trans-1,2-Dichloroethene	ND	25	ND
1,1-Dichloroethane	ND	25	ND
Vinyl acetate	ND	25	ND
2-Butanone	ND	1250	ND
Chloroform	ND	25	ND
1,1,1-Trichloroethane	ND	25	ND
1,2-Dichloroethane	ND	25	ND
Benzene	ND	25	ND
Carbon Tetrachloride	ND	25	ND
1,2-Dichloropropane	ND	25	ND
Trichloroethene	ND	25	ND
Bromodichloroethane	ND	25	ND
cis-1,3-Dichloropropene	ND	25	ND
4-Methyl-2-pentanone	ND	25	ND
trans-1,3-Dichloropropene	ND	25	ND
Toluene	ND	50	ND
1,1,2-Trichloroethane	ND	25	ND
2-Hexanone	ND	1250	ND
Dibromochloromethane	ND	25	ND
Tetrachloroethane	ND	25	ND
Chlorobenzene	ND	25	ND
Ethylbenzene	ND	25	ND
m_p-Xylene	ND	50	ND
Bromoform	ND	25	ND
Styrene	ND	25	ND
o-Xylene	ND	25	ND
1,1,2,2 Tetrachloroethane	ND	25	ND
trans 1,4-Dichloro-2-butene	ND	125	ND
cis 1,4-Dichloro-2-butene	ND	125	ND
1,4-Dichlorobenzene	ND	50	ND
1,3-Dichlorobenzene	ND	50	ND
1,2-Dichlorobenzene	ND	50	ND

ND = Not Detected

\*Note: Elevated reporting limit due to sample matrix interferences.



A Laboratory for Advanced Environmental Research and Analysis

ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jul 07, 1997  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75937 W2-02-43 FT

8240 Quality Control	QC	% IA	RPD	% EA
Chloromethane	95	95		
Vinyl Chloride	97	97		
1,1-Dichloroethene	98	98	0	73
1,1-Dichloroethane	105	105		
Chloroform	105	105		
Benzene			2	81
1,2-Dichloropropane	102	102		
Trichloroethene			4	78
Toluene	96	96	1	84
Chlorobenzene	92	92	3	77
Ethylbenzene	92	92		
Bromoform	98	98		
1,1,2,2-Tetrachloroethane	117	117		

% RECOVERY

Dibromofluoromethane SURR	100
Toluene-d8 SURR	101
4-Bromofluorobenzene SURR	100

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (ug/L)	SPIKE: (ug/Kg)
8240	EPA 5030	6/23/97	EPA 8260	6/23/97	RP	100 ea	100 ea



Director, Dr. Blair Leftwich

7-7-97

Date

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
 806-794-1296

ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

FAX 806-794-1298  
 Date: Jul 07, 1997

Project: STA.501-1  
 Proj name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75938 W3-01-38 PT

8240 compounds in Soil (ug/Kg)	Method Blank	Reporting Limit	Result
Dichlorodifluoromethane	ND	25	ND
Chloromethane	ND	25	ND
Vinyl chloride	ND	25	ND
Bromoethane	ND	125	ND
Chloroethane	ND	25	ND
Trichlorofluoromethane	ND	25	ND
1,1-Dichloroethene	ND	25	ND
Iodomethane	ND	125	ND
Carbon disulfide	ND	25	ND
Methylene chloride	ND	125	ND
trans-1,2-Dichloroethene	ND	25	ND
1,1-Dichloroethane	ND	25	ND
Vinyl acetate	ND	25	ND
2-Butanone	ND	1250	ND
Chloroform	ND	25	ND
1,1,1-Trichloroethane	ND	25	ND
1,2-Dichloroethane	ND	25	ND
Benzene	ND	25	ND
Carbon Tetrachloride	ND	25	ND
1,2-Dichloropropane	ND	25	ND
Trichloroethene	ND	25	ND
Bromodichloroethane	ND	25	ND
cis-1,3-Dichloropropene	ND	25	ND
4-Methyl-2-pentanone	ND	1250	ND
trans-1,3-Dichloropropene	ND	25	ND
Toluene	ND	50	ND
1,1,2-Trichloroethane	ND	25	ND
2-Hexanone	ND	1250	ND
Dibromochloromethane	ND	25	ND
Tetrachloroethane	ND	25	ND
Chlorobenzene	ND	25	ND
Ethylbenzene	ND	25	ND
m_p-Xylene	ND	50	ND
Bromoform	ND	25	ND
Styrene	ND	25	ND
o-Xylene	ND	25	ND
1,1,2,2-Tetrachloroethane	ND	25	ND
trans 1,4-Dichloro-2-butene	ND	125	ND
cis 1,4-Dichloro-2-butene	ND	125	ND
1,4-Dichlorobenzene	ND	50	ND
1,3-Dichlorobenzene	ND	50	ND
1,2-Dichlorobenzene	ND	50	ND

ND = Not Detected

\*Note: Elevated reporting limit due to sample matrix interferences.



A Laboratory for Advanced Environmental Research and Analysis

ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jul 07, 1997  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75938 W3-01-38 FT

	QC	% IA	RPD	% EA
8240 Quality Control				
Chloromethane	95	95		
Vinyl Chloride	97	97		
1,1-Dichloroethene	98	98	0	73
1,1-Dichloroethane	105	105		
Chloroform	105	105		
Benzene			2	81
1,2-Dichloropropane	102	102		
Trichloroethene			4	78
Toluene	96	96	1	84
Chlorobenzene	92	92	3	77
Ethylbenzene	92	92		
Bromoform	98	98		
1,1,2,2-Tetrachloroethane	117	117		

% RECOVERY

Dibromofluoromethane SURR	105
Toluene-d8 SURR	100
4-Bromofluorobenzene SURR	101

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (ug/L)	SPIKE: (ug/Kg)
8240	EPA 5030	6/23/97	EPA 8260	6/23/97	RP	100 ea	100 ea



Director, Dr. Blair Leftwich

7-7-97

Date

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ANALYTICAL RESULTS FOR  
Nickell Environmental  
Attention: Chris Stapp  
4113 W. Industrial.  
Midland TX 79703

Page 1 of 2

FAX 806-794-1298  
Date: Jul 07, 1997  
Project: STA.501-1  
Proj Name: Facility Assessment & Sampling  
Proj Loc: Hobbs, NM

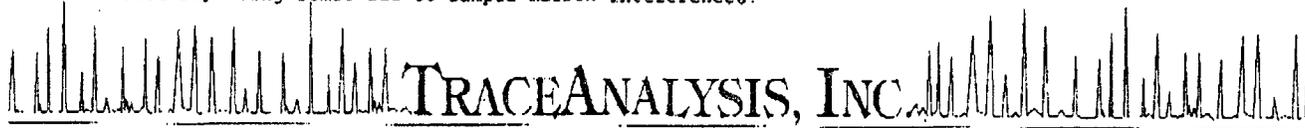
Lab Receiving # : 9706000373  
Date Rec: 6/21/97  
Sampling Date: 6/19/97  
Sample Condition: Intact and Cool  
Sample Received By: BL

T75939 W3-02-43 FT

8240 compounds in Soil (ug/Kg)	Method Blank	Reporting Limit	Result
Dichlorodifluoromethane	ND	25	ND
Chloromethane	ND	25	ND
Vinyl chloride	ND	25	ND
Bromoethane	ND	125	ND
Chloroethane	ND	25	ND
Trichlorofluoromethane	ND	25	ND
1,1-Dichloroethene	ND	25	ND
Iodomethane	ND	125	ND
Carbon disulfide	ND	25	ND
Methylene chloride	ND	125	ND
trans-1,2-Dichloroethene	ND	25	ND
1,1-Dichloroethane	ND	25	ND
Vinyl acetate	ND	25	ND
2-Butanone	ND	1250	ND
Chloroform	ND	25	ND
1,1,1-Trichloroethane	ND	25	ND
1,2-Dichloroethane	ND	25	ND
Benzene	ND	25	ND
Carbon Tetrachloride	ND	25	ND
1,2-Dichloropropane	ND	25	ND
Trichloroethene	ND	25	ND
Bromodichloroethane	ND	25	ND
cis-1,3 Dichloropropene	ND	25	ND
4-Methyl-2-pentanone	ND	1250	ND
trans-1,3-Dichloropropene	ND	25	ND
Toluene	ND	50	ND
1,1,2-Trichloroethane	ND	25	ND
2-Hexanone	ND	1250	ND
Dibromochloromethane	ND	25	ND
Tetrachloroethane	ND	25	ND
Chlorobenzene	ND	25	ND
Ethylbenzene	ND	25	ND
m,p-Xylene	ND	50	ND
Bromoform	ND	25	ND
Styrene	ND	25	ND
o-Xylene	ND	25	ND
1,1,2,2-Tetrachloroethane	ND	25	ND
trans 1,4-Dichloro-2-butene	ND	125	ND
cis 1,4 Dichloro-2-butene	ND	125	ND
1,4-Dichlorobenzene	ND	50	ND
1,3-Dichlorobenzene	ND	50	ND
1,2 Dichlorobenzene	ND	50	ND

ND = Not Detected

\*Note: Elevated reporting limit due to sample matrix interferences.



A Laboratory for Advanced Environmental Research and Analysis

ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jul 07, 1997  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Date Rec: 6/21/97  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

T75939 W3-02-43 FT

8240 Quality Control	QC	% IA	RPD	% EA
Chloromethane	95	95		
Vinyl Chloride	97	97		
1,1 Dichloroethene	98	98	0	73
1,1 Dichloroethane	105	105		
Chloroform	105	105		
Benzene			2	81
1,2-Dichloropropane	102	102		
Trichloroethene			4	78
Toluene	96	96	1	84
Chlorobenzene	92	92	3	77
Ethylbenzene	92	92		
Bromoform	98	98		
1,1,2,2-Tetrachloroethane	117	117		

% RECOVERY

Dibromofluoromethane SURR	98
Toluene-d8 SURR	100
4-Bromofluorobenzene SURR	103

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (ug/L)	SPIKE: (ug/Kg)
8240	EPA 5030	6/23/97	EPA 8260	6/23/97	RP	100 ea	100 ea



Director, Dr. Blair Leftwich

7-7-97

Date

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Analytical Results for  
 NICKELL ENVIRONMENTAL CORP.  
 Attention: Chris E. Stapp  
 19 Barry Road  
 Midland, TX 79706

June 26, 1997  
 Receiving Date: 06/21/97  
 Sample Type: Soil  
 Project No: STA. 501-1  
 Project Location: Hobbs, NM

Extraction Date: 06/24/97  
 Analysis Date: 06/24/97  
 Sampling Date: 06/19/97  
 Sample Condition: Intact & Cool  
 Sample Received by: BL  
 Project Name: Star Tool Well  
 Investig.

SAMPLE NO.	FIELD CODE	GRO* (mg/kg)
T75934	W1-01-30FT	<50
T75935	W1-02-35FT	<50
T75936	W2-01-38FT	<50
T75937	W2-02-43FT	<50
T75938	W3-01-38FT	<50
T75939	W3-02-43FT	<50
QC	Quality Control	125
Reporting Limit		50
RPD		9
% Extraction Accuracy		73
% Instrument Accuracy		90

\* GRO - Gasoline Range Organics

METHODS: EPA SW 8015B.  
 CHEMIST: CC/HC  
 GRO SPIKE: 100 mg/kg GRO.  
 GRO QC: 125 mg/L GRO.

  
 \_\_\_\_\_  
 Director, Dr. Blair Leftwich

6-26-97  
 \_\_\_\_\_  
 DATE

6701 Aberdeen Avenue  
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FAX 806•794•1298

Analytical Results for  
NICKELL ENVIRONMENTAL CORP.  
Attention: Chris E. Stapp  
19 Barry Road  
Midland, TX 79706

June 26, 1997  
Receiving Date: 06/21/97  
Sample Type: Soil  
Project No: STA. 501-1  
Project Location: Hobbs, NM

Extraction Date: 06/24/97  
Analysis Date: 06/24/97  
Sampling Date: 06/19/97  
Sample Condition: Intact & Cool  
Sample Received by: BL  
Project Name: Star Tool Well  
Investig.

SAMPLE NO.	FIELD CODE	DRO* (mg/kg)
T75934	W1-01-30FT	<50
T75935	W1-02-35FT	<50
T75936	W2-01-38FT	<50
T75937	W2-02-43FT	<50
T75938	W3-01-38FT	<50
T75939	W3-02-43FT	<50
QC	Quality Control	150

Reporting Limit 50

RPD 6  
% Extraction Accuracy 96  
% Instrument Accuracy 106

\* DRO - Diesel Range Organics

METHODS: EPA SW 8015B.  
CHEMIST: CC/HC  
DRO SPIKE: 100 mg/kg DRO.  
DRO QC: 125 mg/L DRO.

Director, Dr. Blair Leftwich

6-26-97

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**ANALYTICAL RESULTS FOR  
 Nickell Environmental**  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jun 26, 1997  
 Date Rec: 6/21/97  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

PAH in Soil (mg/Kg)	Reporting Limit *	T75934 W1-01-30 FT	QC	RPD	%EA	%IA
Naphthalene	50	ND	81	10	98	101
Acenaphthylene	50	ND	81	3	109	101
Acenaphthene	50	ND	78	6	100	98
Fluorene	50	ND	83	3	103	104
Phenanthrene	50	ND	75	7	105	94
Anthracene	50	ND	73	7	92	91
Fluoranthene	50	ND	80	5	113	100
Pyrene	50	ND	74	9	110	93
Benzo[a]anthracene	50	ND	79	4	116	99
Chrysene	50	ND	79	6	112	99
Benzo[b]fluoranthene	50	ND	78	16	100	98
Benzo[k]fluoranthene	50	ND	82	5	106	103
Benzo[a]pyrene	50	ND	78	5	99	98
Indeno[1,2,3-cd]pyrene	50	ND	75	4	97	94
Dibenz[a,h]anthracene	50	ND	74	6	91	93
Benzo[g,h,i]perylene	50	ND	73	3	96	91

ND = Not Detected

\*Note: Elevated reporting limit due to petroleum hydrocarbon interferences.

% RECOVERY

Nitrobenzene-d5 SURR	101
2-Fluorobiphenyl SURR	104
Terphenyl-d14 SURR	126

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/Kg)	SPIKE: (mg/Kg)
PAH	EPA 3550	6/24/97	EPA 8270	6/24/97	HC/CC	80 ea	100 ea



Director, Dr. Blair Leftwich

6-26-97

Date

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
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**ANALYTICAL RESULTS FOR  
 Nickell Environmental**  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jun 26, 1997  
 Date Rec: 6/21/97  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

PAH in Soil (mg/Kg)	Reporting Limit *	T75935					
		W1-02-35 FT	QC	RPD	%EA	%TA	
Naphthalene	5.0	ND	81	10	98	101	
Acenaphthylene	5.0	ND	81	3	109	101	
Acenaphthene	5.0	ND	78	6	100	98	
Fluorene	5.0	ND	83	3	103	104	
Phenanthrene	5.0	ND	75	7	105	94	
Anthracene	5.0	ND	73	7	92	91	
Fluoranthene	5.0	ND	80	5	113	100	
Pyrene	5.0	ND	74	9	110	93	
Benzo[a]anthracene	5.0	ND	79	4	116	99	
Chrysene	5.0	ND	79	6	112	99	
Benzo[b]fluoranthene	5.0	ND	78	16	100	98	
Benzo[k]fluoranthene	5.0	ND	82	5	106	103	
Benzo[a]pyrene	5.0	ND	78	5	99	98	
Indeno[1,2,3-cd]pyrene	5.0	ND	75	4	97	94	
Dibenz[a,h]anthracene	5.0	ND	74	6	91	93	
Benzo[g,h,i]perylene	5.0	ND	73	3	96	91	

ND = Not Detected

\*Note: Elevated reporting limit due to petroleum hydrocarbon interferences.

% RECOVERY

Nitrobenzene-d5 SURR	96
2-Fluorobiphenyl SURR	93
Terphenyl-d14 SURR	116

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/Kg)	SPIKE: (mg/Kg)
PAH	EPA 3550	6/24/97	EPA 8270	6/24/97	HC/CC	80 ea	100 ea



Director, Dr. Blair Leftwich

6-26-97

Date



**TRACE ANALYSIS, INC.**  
 A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
 806•794•1296  
 FAX 806•794•1298

**ANALYTICAL RESULTS FOR  
 Nickell Environmental**  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jun 26, 1997  
 Date Rec: 6/21/97  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

PAH in Soil (mg/Kg)	Reporting Limit *	T75936 W2-01-38 FT	QC	RPD	±2A	±1A
Naphthalene	2.5	ND	81	10	98	101
Acenaphthylene	2.5	ND	81	3	109	101
Acenaphthene	2.5	ND	78	6	100	98
Fluorene	2.5	ND	83	3	103	104
Phenanthrene	2.5	ND	75	7	105	94
Anthracene	2.5	ND	73	7	92	91
Fluoranthene	2.5	ND	80	5	113	100
Pyrene	2.5	ND	74	9	110	93
Benzo[a]anthracene	2.5	ND	79	4	116	99
Chrysene	2.5	ND	79	6	112	99
Benzo[b]fluoranthene	2.5	ND	78	16	100	98
Benzo[k]fluoranthene	2.5	ND	82	5	106	103
Benzo[a]pyrene	2.5	ND	78	5	99	98
Indeno[1,2,3-cd]pyrene	2.5	ND	75	4	97	94
Dibenz[a,h]anthracene	2.5	ND	74	6	91	93
Benzo[g,h,i]perylene	2.5	ND	73	3	96	91

ND = Not Detected

\*Note: Elevated reporting limit due to petroleum hydrocarbon interferences.

**% RECOVERY**

Nitrobenzene-d5 SURR	88
2-Fluorobiphenyl SURR	90
Terphenyl-d14 SURR	110

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/Kg)	SPIKE: (mg/Kg)
PAH	EPA 3550	6/24/97	EPA 8270	6/24/97	HC/CC	80 ea	100 ea

  
 Director, Dr. Blair Leftwich

6-26-97  
 Date

**TRACE ANALYSIS, INC.**

A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
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 806•794•1296  
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ANALYTICAL RESULTS FOR  
 Nickell Environmental  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jun 26, 1997  
 Date Rec: 6/21/97  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

PAH in Soil (mg/Kg)	Reporting Limit *	T75937 W2-02-43 FT	QC	RPD	SEA	%IA
Naphthalene	2.5	ND	81	10	98	101
Acenaphthylene	2.5	ND	81	3	109	101
Acenaphthene	2.5	ND	78	6	100	98
Fluorene	2.5	ND	83	3	103	104
Phenanthrene	2.5	ND	75	7	105	94
Anthracene	2.5	ND	73	7	92	91
Fluoranthene	2.5	ND	80	5	113	100
Pyrene	2.5	ND	74	9	110	93
Benzo[a]anthracene	2.5	ND	79	4	116	99
Chrysene	2.5	ND	79	6	112	99
Benzo[b]fluoranthene	2.5	ND	78	16	100	98
Benzo[k]fluoranthene	2.5	ND	82	5	106	103
Benzo[a]pyrene	2.5	ND	78	5	99	98
Indeno[1,2,3-cd]pyrene	2.5	ND	75	4	97	94
Dibenz[a,h]anthracene	2.5	ND	74	6	91	93
Benzo[g,h,i]perylene	2.5	ND	73	3	96	91

ND = Not Detected

\*Note: Elevated reporting limit due to petroleum hydrocarbon interferences.

% RECOVERY

Nitrobenzene-d5 SURR	86
2-Fluorobiphenyl SURR	90
Terphenyl-d14 SURR	100

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/Kg)	SPIKE: (mg/Kg)
PAH	EPA 3550	6/24/97	EPA 8270	6/24/97	HC/CC	80 ea	100 ea



Director, Dr. Blair Leftwich

6-26-97

Date



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**ANALYTICAL RESULTS FOR  
 Nickell Environmental**  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jun 26, 1997  
 Date Rec: 6/21/97  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

PAH in Soil (mg/Kg)	Reporting Limit *	T75938 W3-01-38 FT	QC	RPD	VEA	ATA
Naphthalene	2.5	ND	81	10	98	101
Acenaphthylene	2.5	ND	81	3	109	101
Acenaphthene	2.5	ND	78	6	100	98
Fluorene	2.5	ND	83	3	103	104
Phenanthrene	2.5	ND	75	7	105	94
Anthracene	2.5	ND	73	7	92	91
Fluoranthene	2.5	ND	80	5	113	100
Pyrene	2.5	ND	74	9	110	93
Benzo[a]anthracene	2.5	ND	79	4	116	99
Chrysene	2.5	ND	79	6	112	99
Benzo[b]fluoranthene	2.5	ND	78	16	100	98
Benzo[k]fluoranthene	2.5	ND	82	5	106	103
Benzo[a]pyrene	2.5	ND	78	5	99	98
Indeno[1,2,3-cd]pyrene	2.5	ND	75	4	97	94
Dibenz[a,h]anthracene	2.5	ND	74	6	91	93
Benzo[g,h,i]perylene	2.5	ND	73	3	96	91

ND = Not Detected

\*Note: Elevated reporting limit due to petroleum hydrocarbon interferences.

% RECOVERY

Nitrobenzene-d5 SURR	92
2-Fluorobiphenyl SURR	94
Terphenyl-d14 SURR	114

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/Kg)	SPIKE: (mg/Kg)
PAH	EPA 3550	6/24/97	EPA 8270	6/24/97	HC/CC	80 ea	100 ea



Director, Dr. Blair Leftwich

6-26-97

Date



A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue  
 Lubbock, Texas 79424  
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**ANALYTICAL RESULTS FOR**  
**Nickell Environmental**  
 Attention: Chris Stapp  
 4113 W. Industrial.  
 Midland TX 79703

Date: Jun 26, 1997  
 Date Rec: 6/21/97  
 Project: STA.501-1  
 Proj Name: Facility Assessment & Sampling  
 Proj Loc: Hobbs, NM

Lab Receiving # : 9706000373  
 Sampling Date: 6/19/97  
 Sample Condition: Intact and Cool  
 Sample Received By: BL

PAH in Soil (mg/Kg)	Reporting Limit	T75939 M3-02-43 PT	QC	RPD	%EA	%IA
Naphthalene	0.25	ND	81	10	98	101
Acenaphthylene	0.25	ND	81	3	109	101
Acenaphthene	0.25	ND	78	6	100	98
Fluorene	0.25	ND	83	3	103	104
Phenanthrene	0.25	ND	75	7	105	94
Anthracene	0.25	ND	73	7	92	91
Fluoranthene	0.25	ND	80	5	113	100
Pyrene	0.25	ND	74	9	110	93
Benzo[a]anthracene	0.25	ND	79	4	116	99
Chrysene	0.25	ND	79	6	112	99
Benzo[b]fluoranthene	0.25	ND	78	16	100	98
Benzo[k]fluoranthene	0.25	ND	82	5	106	103
Benzo[a]pyrene	0.25	ND	78	5	99	98
Indeno[1,2,3-cd]pyrene	0.25	ND	75	4	97	94
Dibenz[a,h]anthracene	0.25	ND	74	6	91	93
Benzo[g,h,i]perylene	0.25	ND	73	3	96	91

ND = Not Detected

\* RECOVERY

Nitrobenzene-d5 SURR	55
2-Fluorobiphenyl SURR	56
Terphenyl-d14 SURR	90

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/Kg)	SPIKE: (mg/Kg)
PAH	EPA 3550	6/24/97	EPA 8270	6/24/97	HC/CC	80 ea	100 ea



Director, Dr. Blair Leftwich

6-26-97

Date



A Laboratory for Advanced Environmental Research and Analysis

# TraceAnalysis, Inc.

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

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST  
**WI-001**

Project Manager:

**CHRIS E. STAPP**

Phone #: (915) 520-4100

FAX #: (915) 520-3844

Company Name & Address:

**NICKELL ENVIR. CORP. 19 BARRY RD. MIDLAND, TX 79706**

Project #:

**STA. S01-1**

Project Name:

**STAR TOOL WELL INVESTIG.**

Project Location:

**HOBBS, NM**

Sampler Signature:

*Chris E. Stapp*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD			SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCL	HNO3	ICE	NONE	DATE	TIME
	W1-01-30FT			X				X				6/19	0945
	W1-02-35FT			X				X				6/19	10:00
	W2-01-38 FT			X				X				6/19	1220
	W2-02-43FT			X				X				6/19	1315
	W3-01-38 FT			X				X				6/19	1415
	W3-02-43 FT			X				X				6/19	1630

ANALYSIS REQUEST		SPECIAL HANDLING
BTEX, MTBE	X	
TPH - 8015	X	
Total Metals Ag As Ba Cd Cr Pb Hg Se	X	8010 HALOGENATED VOL. ORGANICS
TCLP Metals Ag As Ba Cd Cr Pb Hg Se	X	
TCLP Volatiles	X	8020 AROMATIC VOLATILE ORGANICS
TCLP Semi Volatiles	X	
RCI	X	8100 POLYNUCLEAR AROMATIC HYDROCARB
8240 / 8260	X	
8270	X	

REMARKS

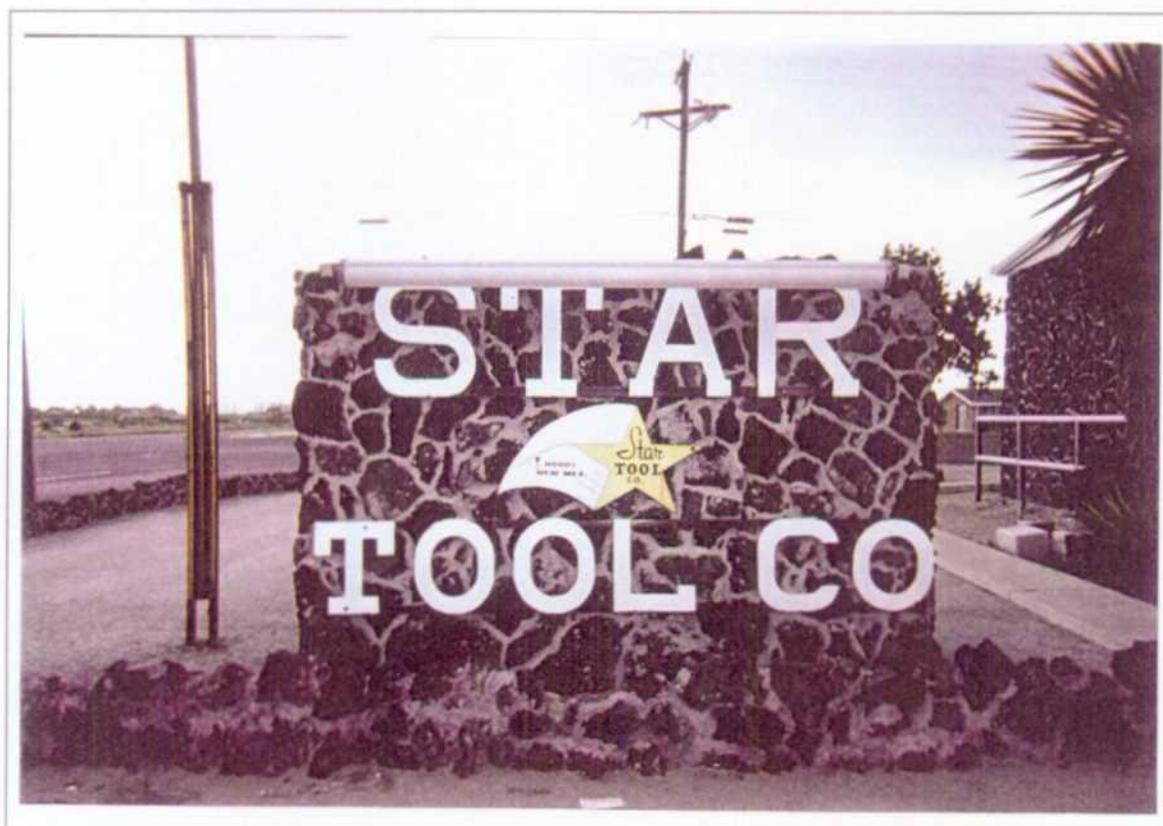
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
<i>Chris E. Stapp</i>	6/20/97	1445	<i>David D...</i>	6/20/97	1445
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

**ATTACHMENT 4**

(Well Investigation Photograph Log)



Star Tool Company (STA.501-1)  
1000 West County Road, Hobbs, New Mexico  
Class V Well Investigation  
June 19, 1997  
Project Manager - Chris Stapp



Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997

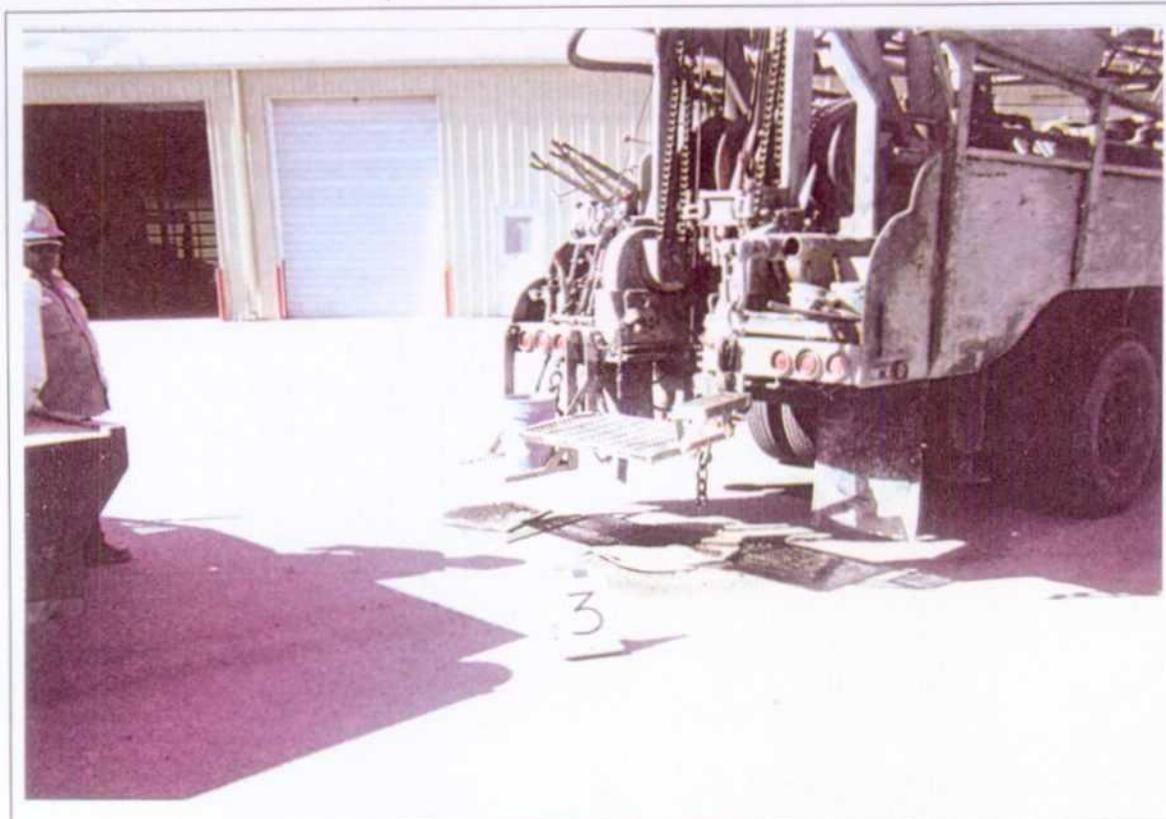


1. Well 1 prior to investigation with cover in place. This (Well 1) is the open boring.



2. Well 1 prior to investigation with cover removed.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997



3. Well 1 with drill rig in place.

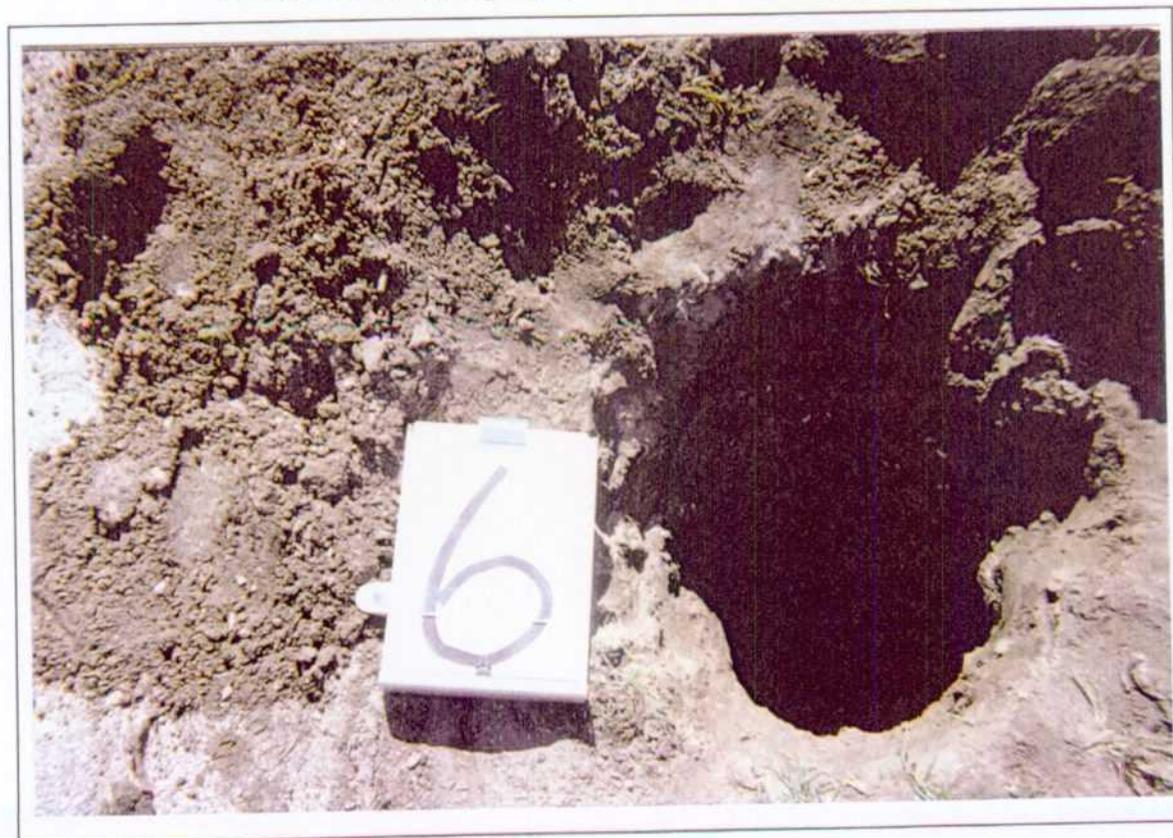


4. Well 1, plugging process.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997



5. Well 1 with "hole plug" to 2' below surface. (Hydrated)



6. Well 2 after removal of approximately 3' of soil and lava rock.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997



7. Well 2 investigative boring (W2IB) in progress.

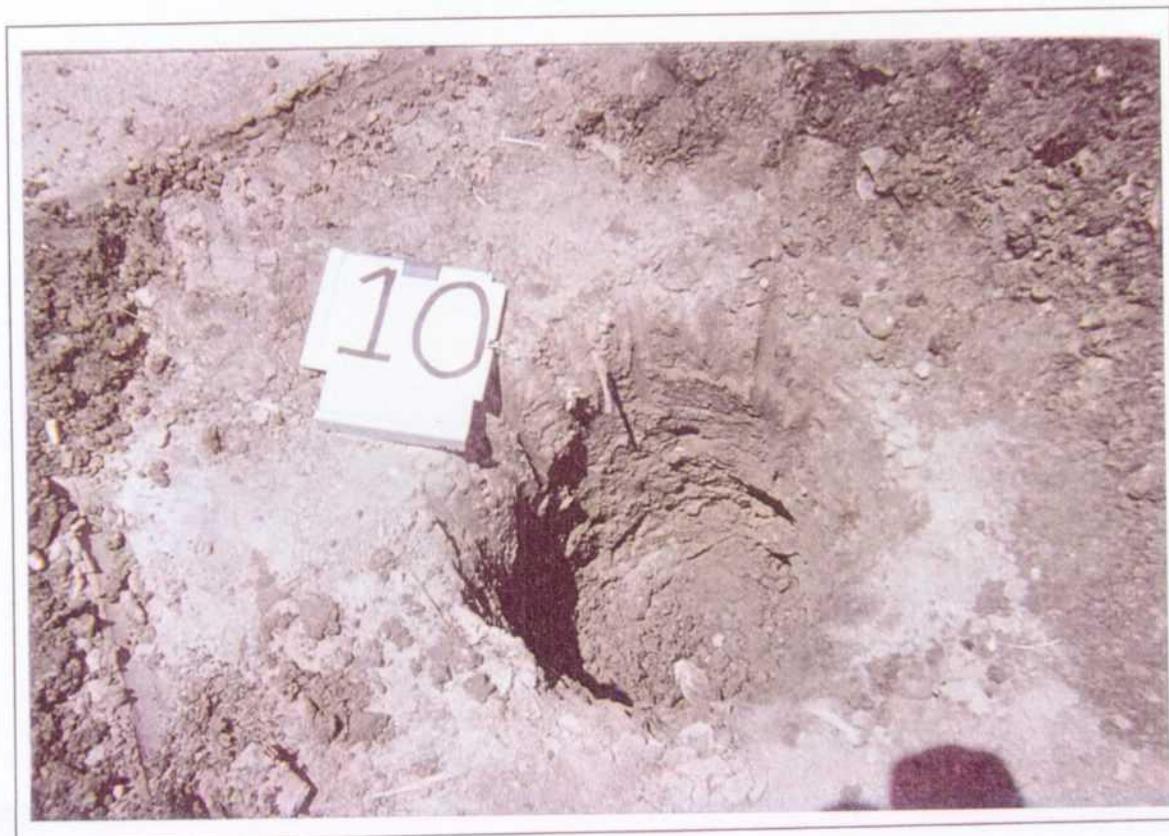


8. W2IB plugging in process.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997

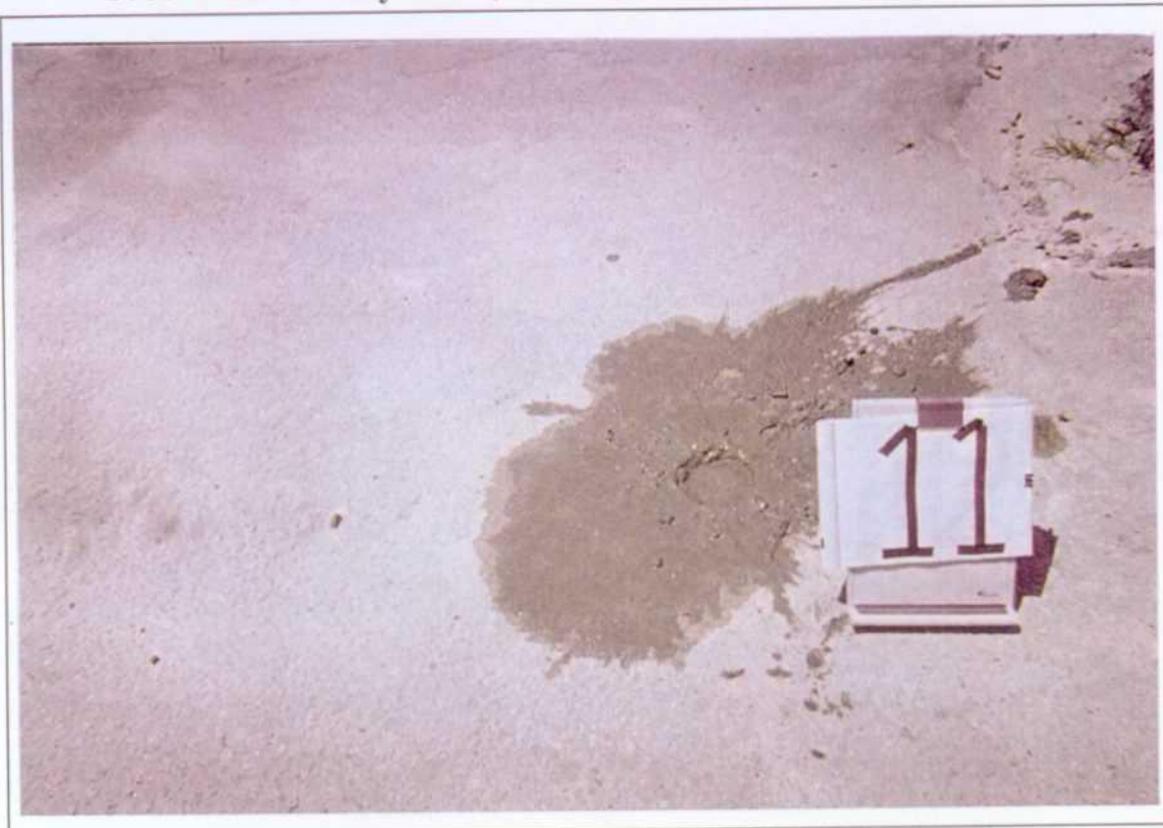


9. Well 3 without grate prior to uncovering.

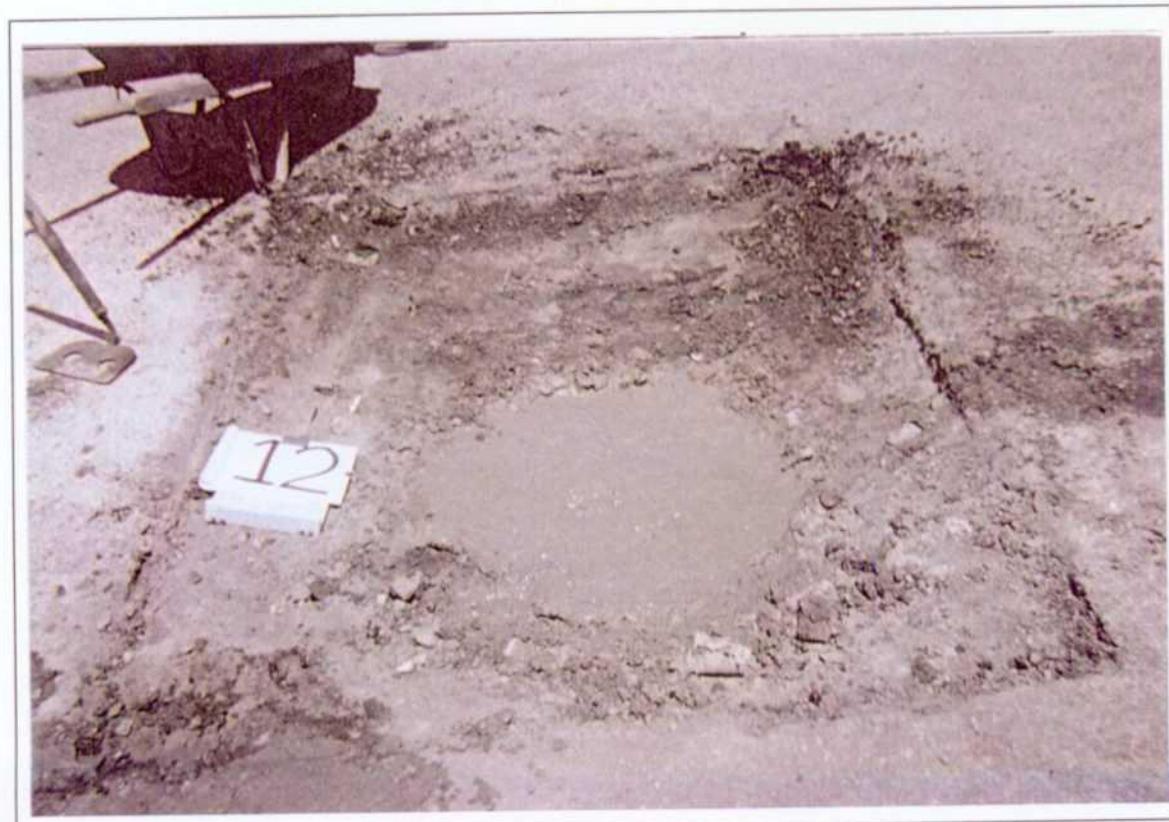


10. Well 3 uncovered prior to plugging and capping. Uncovered to 2.5'.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997



11. W2IB capped with concrete.

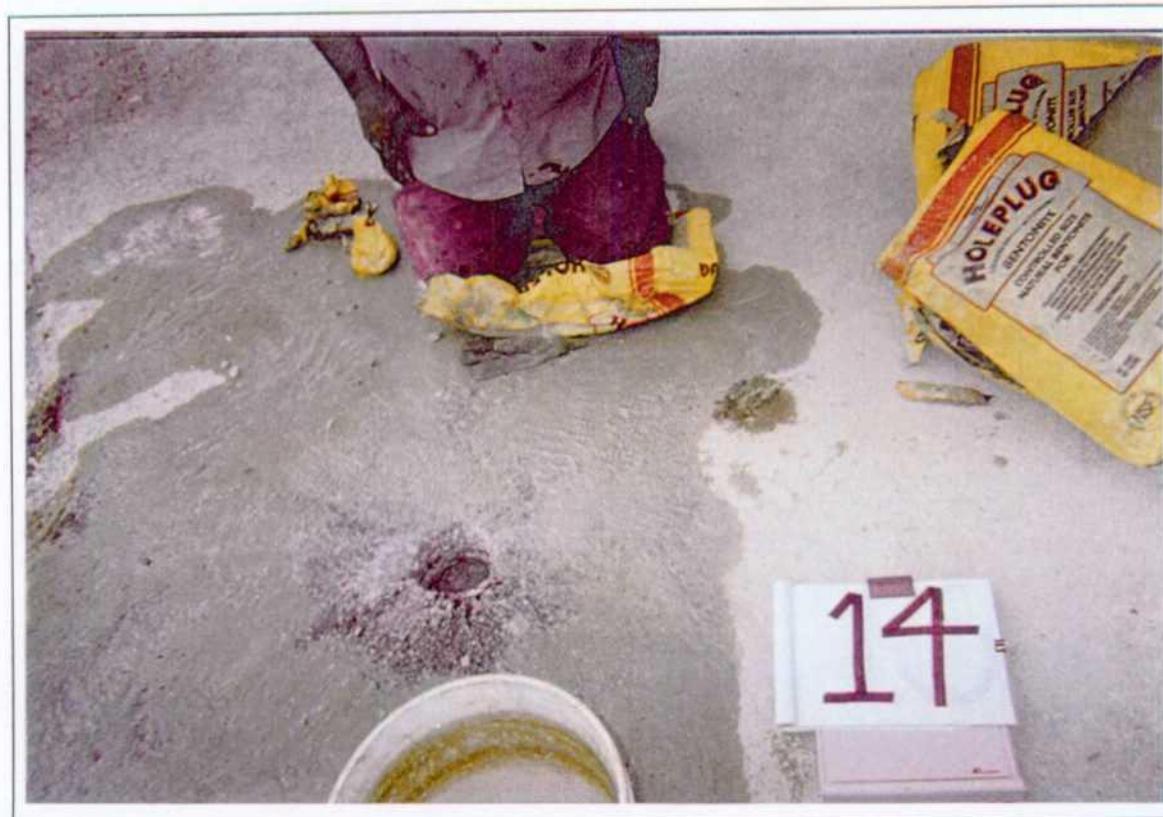


12. Well 3 capped with concrete.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997



13. W3IB in progress - drilling.



14. Driller plugging W3IB.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997



15. W3IB plugged and capped.



16. Well 1 plugged and capped.

Star Tool Company  
1000 West County Road, Hobbs, New Mexico, June 19, 1997



17. Well 2 plugged and capped.

**ATTACHMENT 5**

(Waste Filter Profiles)





*Handwritten signature*

*Handwritten: Hobbs*

**GENERATOR'S WASTE PROFILE SHEET**  
PLEASE PRINT IN INK OR TYPE

Service Agreement on File?  YES  NO  
 Hazardous  Non-Hazardous  TSCA

Profile Number: WMI A 01530  
Renewal Date: 1 1

**A. Waste Generator Information**

- 1. Generator Name: Star Tool Co.
- 2. SIC Code: \_\_\_\_\_
- 3. Facility Street Address: Dirt Road
- 4. Phone: (505) 397-4988
- 5. Facility City: Hobbs NM
- 6. State/Province: New Mexico
- 7. Zip/Postal Code: 88241
- 8. Generator USEPA/Federal ID #: \_\_\_\_\_
- 9. County: Lea
- 10. State/Province ID #: \_\_\_\_\_
- 11. Customer Name: Star Tool
- 12. Customer Phone: (505) 397-4988
- 13. Customer Contact: \_\_\_\_\_
- 14. Customer Fax: \_\_\_\_\_
- 15. Billing Address: PO Box 2008  Same as above

**B. Waste Stream Information**

- 1. Description
  - a. Name of Waste: PAINT FILTERS
  - b. Process Generating Waste: Paint Booth Equipment Paint, Cars, Trucks, Trailers, Pickups, Car Fleet Equipment

c. Color <u>Gold</u> <u>Black</u> <u>White</u>	d. Strong odor (describe): <u>Dried Paint</u>	e. Physical state @ 70°F <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/> Sludge <input type="checkbox"/> Other	f. Layers <input type="checkbox"/> Single Layer <input checked="" type="checkbox"/> Multi-layer	g. Free liquid range <u>0</u> to <u>0</u> % h. pH: Range to %
---	--	---	---	--

- l. Liquid Flash Point:  <73°F  73-99°F  100-139°F  140-199°F  ≥ 200°F  Not applicable
- j. Chemical Composition (List all constituents [including halogenated organics, debris, and UHC's] present in any concentration and submit representative analysis):

Constituents	Concentration Range	Constituents	Concentration Range

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

- k.  Oxidizer  Pyrophoric  Explosive  Radioactive  
 Carcinogen  Infectious  Shock Sensitive  Water Reactive
- l. Does the waste represented by this profile contain any of the carcinogens which require OSHA notification? (list in Section B.1.j).....  YES  NO
- m. Does the waste represented by this profile contain dioxins? (list in Section B.1.j).....  YES  NO
- n. Does the waste represented by this profile contain asbestos?.....  YES  NO  
If yes.....  friable  non-friable
- o. Does the waste represented by this profile contain benzene?.....  YES  NO  
If yes, concentration \_\_\_\_\_ ppm  
Is the waste subject to the benzene waste operations NESHAP?.....  YES  NO
- p. Is the waste subject to RCRA Subpart CC controls?.....  YES  NO  
If yes, volatile organic concentration \_\_\_\_\_ ppmw.
- q. Does the waste contain any Class I or Class II ozone-depleting substances?.....  YES  NO
- r. Does the waste contain debris? (list in Section B.1.j).....  YES  NO

2. Quantity of Waste  
Estimated Annual Volume 3 yds.  Tons  Yards  Drums  Other (specify) \_\_\_\_\_

3. Shipping Information

- a. Packaging:
  - Bulk Solid; Type/Size: \_\_\_\_\_
  - Bulk Liquid; Type/Size: \_\_\_\_\_
  - Drum; Type; Size: \_\_\_\_\_
  - Other: Drum
- b. Shipping Frequency: Units 2 times Per:  Month  Quarter  Year  One time  Other \_\_\_\_\_
- c. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (if no, skip d, e, and f).....  YES  NO

Form WMI-4183



### GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

d. Reportable Quantity (lbs.; kgs.): 3 yds. e. Hazard Class/ID #: \_\_\_\_\_  
 f. USDOT Shipping Name: \_\_\_\_\_  
 g. Personal Protective Equipment Requirements: Wear suit, air line, boots, gloves, etc.  
 h. Transporter/Transfer Station: Waste Man

#### C. Generator's Certification (Please check appropriate responses, sign, and date below.)

1. Is this a USEPA hazardous waste (40 CFR Part 261)? If the answer is no, skip to 2.  YES  NO
  - a. If yes, identify ALL USEPA listed and characteristic waste code numbers (D, F, K, P, U) \_\_\_\_\_
  - b. If a characteristic hazardous waste, do underlying hazardous constituents (UHCs) apply? (if yes, list in Section B.1.)  YES  NO
  - c. Does this waste contain debris? (if yes, list size and type in Chemical Composition - B.1.)  YES  NO
2. Is this a state hazardous waste?  YES  NO  
Identify ALL state hazardous waste codes \_\_\_\_\_
3. Is the waste from a CERCLA (40 CFR 300, Appendix B) or state mandated clean-up?  YES  NO  
If yes, attach Record of Decision (ROD), 104/108 or 122 order or court order that governs site clean-up activity. For state mandated clean-up, provide relevant documentation.
4. Does the waste represented by this waste profile sheet contain radioactive material, or is disposal regulated by the Nuclear Regulatory Commission?  YES  NO
5. Does the waste represented by this waste profile sheet contain concentrations of Polychlorinated Biphenyls (PCBs) regulated by 40 CFR 761? (if yes, list in Chemical Composition - B.1.)  YES  NO
  - a. If yes, were the PCBs imported into the U.S.?  YES  NO
6. Do the waste profile sheet and all attachments contain true and accurate descriptions of the waste material, and has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the Contractor?  YES  NO
7. Will all changes which occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor?  YES  NO

Check here if a Certificate of Destruction or Disposal is required.

Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. I authorize WMI to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary. If approved for management, Contractor has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Certification Signature: Steve Tol Co. Dick Parvish Title: Purchasing Agent  
 Name (Type or Print): Dick Parvish Company Name: Star Talk Date: 6/3/97  
 Check if additional information is attached. Indicate the number of attached pages \_\_\_\_\_

#### D. WMI Management's Decision

FOR WMI USE ONLY

1.	Management Method <input type="checkbox"/> Landfill <input type="checkbox"/> Non-hazardous Solidification <input type="checkbox"/> Bioremediation <input type="checkbox"/> Incineration <input type="checkbox"/> Hazardous Stabilization <input type="checkbox"/> Other (Specify) _____	
2.	Proposed Ultimate Management Facility: _____	
3.	Precautions, Special Handling Procedures, or Limitation on Approval: _____	
4.	Waste Form _____	5. Source _____
		6. System Type _____
Special Waste Decision: _____		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved
Salesperson's Signature: _____		Date: _____
Division Approval Signature (Optional): _____		Date: _____
Special Waste Approvals Person Signature: _____		Date: _____

Chemical Waste Management, Inc.
GENERATOR'S WASTE PROFILE SHEET

Profile #
CWL A01530

B 10'F X
Printed 06/19/97

( ) Check here if this is a Recertification LOCATION OF ORIGINAL Hobbs Landfill

GENERAL INFORMATION

Generator Name: STAR TOOL CO Generator USEPA ID: EXEMPT
2. Generator Address: 1000 NW COUNTY RD Billing Address:
HOBBS NM 88240
3. Technical Contact/Phone: 505/397-4988
Alternate Contact/Phone:

PROPERTIES AND COMPOSITION

Process Generating Waste: PAINT BOOTH EQUIPMENT PAINT, CARS, TRUCKS, TANKS, PICKUPS. (ALL FLEET EQUIPMENT)
Waste Name: PAINT FILTERS

7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes ( ) No (X)
B. Identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U):

State Waste Codes:

8. Physical State @ 70F: A. Solid(X) Liquid( ) Both( ) Gas( ) B. Single Layer ( ) Multilayer (X) C. Free liq. range 0 to 0%

9A. pH: Range or Not applicable (X) B. Strong Odor (X); describe DRIED PAINT

10. Liquid Flash Point: < 73F ( ) 73-99F ( ) 100-139F ( ) 140-199F ( ) >= 200F ( ) N.A. (X) Closed Cup (X) Open Cup ( )

11. CHEMICAL COMPOSITION: List ALL constituents (incl. halogenated organics) present in any concentration and forward analysis

Table with 3 columns: Constituents, Range, Unit Description. Row 1: USED PAINT BOOTH FILTERS to 100 %

12. OTHER: PCBs if yes, concentration ppm, PCBs regulated by 40 CFR 761 ( ) Pyrophoric ( ) Explosive ( )
Radioactive ( ) Benzene if yes, concentration ppm. NESHAP ( ) Shock Sensitive ( ) Oxidizer ( )
Carcinogen ( ) Infectious ( ) Other

13. If waste subject to the land ban & meets treatment standards, check here: & supply analytical results where applicable.

SHIPPING INFORMATION

14. PACKAGING: Bulk Solid (X) Bulk Liquid ( ) Drum ( ) Type/Size: BULK Other

15. ANTICIPATED ANNUAL VOLUME: 6 Units: CUBIC YARDS Shipping Frequency: MONTH

SAMPLING INFORMATION

16a. Sample source (drum, lagoon, pond, tank, vat, etc.): Sample Tracking Number: 4899261

Date Sampled: Sampler's Name/Company:

16b. Generator's Agent Supervising Sampling: 17. ( ) No sample required (See instructions.)

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification.

Signature: DICK PARISH Purchasing Agent Name and Title: 6/03/97 Date

Date 6/19/97  
Time 14:37:33

WASTE MANAGEMENT DECISION

Page . . . : 2

Location of Original WESTERN REGION LAB

I. Generator and Facility Information

Tracking #: 4899261 Priority : HB  
Profile # : A01530 Date Received: 06/03/97  
Effective Date: 06/19/97  
Generator : STAR TOOL CO  
Waste Category Code:  
Description : PAINT FILTERS

Decision Site Hobbs Landfill  
Proposed Management Facility Hobbs Landfill

\*\*\* This Decision is APPROVED

V. Continuation.....

Final Approval \_\_\_\_\_ Name (print) JACK KOLOPANIS Date 06/19/97

Date 6/19/97  
Time 14:37:33

WASTE MANAGEMENT DECISION

Page . . . : 1

Location of Original WESTERN REGION LAB

I. Generator and Facility Information

Decision Site Hobbs Landfill  
Proposed Management Facility Hobbs Landfill

Tracking #: 4899261 Priority : HB  
Profile # : A01530 Date Received: 06/03/97  
Effective Date: 06/19/97  
Generator : STAR TOOL CO  
Waste Category Code:  
Description : PAINT FILTERS

\*\*\* This Decision is APPROVED

II. Decision to Deny Approval for Management of Waste

Reason for Denying Approval

Final Approval \_\_\_\_\_ Name (print) \_\_\_\_\_ Date \_\_\_\_\_

III. Decision to Approve

Approved

a) Approved Management Methods  
DIRECT LANDFILL

b) Precaution Conditions or Limitations on Approval

(1) Site Conditions

(2) Contracting Conditions

(3) Site and Contracting Conditions

NO RCRA HAZARDOUS WASTE MAY BE SHIPPED ON THIS PROFILE.  
NO FREE LIQUIDS.

THE WASTE PROFILE SHEET NUMBER MUST BE PRINTED ON THE SHIPPING PAPERS.

HOBBS LEA COUNTY LANDFILL RESERVES THE RIGHT TO REJECT ANY SHIPMENT OF WASTE THAT FAILS TO CONFORM WITH PROFILE SHEET INFORMATION/DOCUMENTATION.

CONTACT HOBBS LEA COUNTY LANDFILL TO SCHEDULE WASTE FOR DISPOSAL AT LEAST 24 HOURS PRIOR TO SHIPPING (505) 392-6092.

ONLY WASTE GENERATED AFTER THE IMPLEMENTATION OF THE USE OF THE PRODUCTS IDENTIFIED ON THE ATTACHED MATERIAL SAFETY DATA SHEETS ACCEPTABLE UNDER THIS APPROVAL (6/19/97).

c) Analytical Requirements for Each Load  
Per Waste Analysis Plan

d) Decision Expiration Date 06/19/99

IV. Final Decision

State any Additional Precautions, Conditions, or Limitations



Waste Management - S.E. New Mexico  
 2608 Lovington Highway  
 Hobbs, NM 88240  
 (505) 392-6571 (800) 634-8760

NON-HAZARDOUS WASTES

**GENERAL CUSTOMER INFORMATION**

ACCOUNT NUMBER and SERVICE TYPE

NEW ACCOUNT    
 MAJOR ACCOUNT    
 SERVICE INCREASE    
 SERVICE DECREASE    
 RATE INCREASE    
 RATE DECREASE    
 CANCEL    
 OTHER

NAME: Star Tool LOCATION ID: \_\_\_\_\_ BILLING STATUS: \_\_\_\_\_  
 STREET NUMBER: 1000 DIR: \_\_\_\_\_ STREET NAME: West County Rd EFFECTIVE DATE: \_\_\_\_\_  
 CITY: Hobbs INCORPORATED: \_\_\_\_\_ COUNTY: \_\_\_\_\_ STATE/PROVINCE: N.M. ZIP/POSTAL CODE: 88240 TEMP. SERV.: \_\_\_\_\_  
 LOCATION: 1000 West County Rd  
 PHONE: 505 397 4988 CONTACT: Deep Povich INDUSTRY SEGMENT: \_\_\_\_\_ ALIAS: \_\_\_\_\_ UNITS: \_\_\_\_\_  
 CREDIT REFERENCE: \_\_\_\_\_ SECURITY REQUIRED: \_\_\_\_\_

**SERVICE SPECIFICATIONS**

SERVICE START/DELIVERY DATE: \_\_\_\_\_

SERVICE EFFECTIVE DATE: \_\_\_\_\_

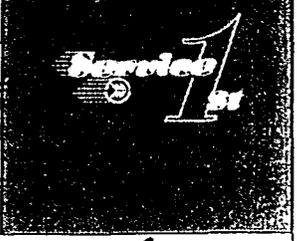
QTY	DESCRIPTION/COMMENTS	OWNERSHIP			WASTE TYPE	SPECIAL WASTE		ROUTE ID	FREQ	SERVICE DAYS							TKT REQ
		C	C	S		PROFILE NUMBER	PROFILE EXPIRES			U	M	T	W	H	F	S	
1	1 1/2 cu yd Deep Bottom Container Special Waste					A 01530	6-1999										

THIS IS A LEGALLY BINDING CONTRACT, AND CONTRACTOR AGREES TO PROVIDE AND CUSTOMER AGREES TO ACCEPT THE SERVICES AND EQUIPMENT AT THE RATES AND FREQUENCY INDICATED ON THIS AGREEMENT SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED ON THE REVERSE SIDE.

NAME: Star PHONE: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ CONTACT: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_ MASTER ACCOUNT: \_\_\_\_\_ RELATED ACCOUNT: \_\_\_\_\_  
 STREET NUMBER: \_\_\_\_\_ DIR: \_\_\_\_\_ STREET NAME: \_\_\_\_\_ MAJOR ACCOUNT: \_\_\_\_\_  
 CITY: \_\_\_\_\_ STATE/PROVINCE: \_\_\_\_\_ ZIP/POSTAL CODE: \_\_\_\_\_ PURCHASE ORDER NUMBER: \_\_\_\_\_

**SCHEDULE OF CHARGES**

DESCRIPTION	TKT	FLAT	RATE
1- 1 1/2 cu yd Deep Bottom Special Waste Container			2100
Disposal			3525
Rent/perm			4500
Hour			4500



ADDITIONAL INSTRUCTIONS/COMMENTS: See MSDS attached General Premier Approval  
note: Filters from this date forward  
are covered under this agreement  
& profile sheet. Filters in the past  
have been disposed of in public trash  
& no filters are being generated as of this date (6-19-97)  
 E2A24

**IDENTICAL SPECIAL WASTE TYPES AND AMOUNTS:**

TERMS AND CONDITIONS ON REVERSE SIDE AND THE ATTACHED CONTRACTOR'S DEFINITION OF SPECIAL WASTE ARE PART OF THIS AGREEMENT.

CUSTOMER: \_\_\_\_\_ CONTRACTOR: \_\_\_\_\_  
 AUTHORIZED SIGNATURE: [Signature] REPRESENTATIVE'S SIGNATURE: [Signature]  
 NAME: [Name] DATE: 6-19-97

Printed on recycled paper

## CONTRACTOR'S DEFINITION OF SPECIAL WASTE

1. "Special Waste" means Type A or Type B Special Wastes as defined below.

2. "Type A Special Waste" means any waste from a commercial or industrial activity meeting any of the following descriptions:

- a. A waste from an industrial process.
- b. A waste from a pollution control process.
- c. A waste containing free liquids.
- d. Residue and debris from the cleanup of a spill of a chemical substance or commercial product or a waste listed in a.-c., or e.-g. of this definition.
- e. Contaminated residuals, or articles from the cleanup of a facility generating, storing, treating, recycling, or disposing of chemical substances, commercial products, or wastes listed in a.-d., f., or g. of this definition.
- f. Any waste which is non-hazardous as a result of treatment pursuant to Subtitle C of the Resource Conservation and Recovery Act (RCRA).
- g. Chemical-containing equipment removed from service, in which the chemical composition and concentration are unknown.

3. "Type B Special Waste" means any waste from a commercial or industrial activity meeting any of the following descriptions:

- a. Friable asbestos waste from building demolition or cleaning; wall board, wall or ceiling spray coverings, pipe insulation, etc. This does not include nonfriable asbestos unless it has been processed, handled, or used in such a way that asbestos fibers may be freely released. Asbestos-bearing industrial process waste is a "Type A Special Waste".
- b. Commercial products or chemicals which are off-specification, outdated, unused, or banned. Outdated or off-specification uncontaminated food or beverage products in original consumer containers are not included in this category, unless management of such containers is restricted by applicable regulations. Containers which once held commercial products or chemicals are included in this category unless an end has been removed (for containers larger than 25 gallons), and the container is empty as defined by RCRA, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), or other applicable regulations.

RCRA considers a container to be empty when: all wastes have been removed that can be removed using the practices commonly employed to remove materials from the type of container (e.g., pouring, pumping or aspirating), and no more than 1 inch (2.54 centimeters) of residue remains on the bottom of the container or inner liner, or no more than 3% by weight of the total capacity of the container remains in the container or inner liner (for containers  $\leq$  110 gallons), or no more than 0.3% by weight of the total capacity of the container remains in the container or inner liner (for containers  $>$  110 gallons). Containers which once held ACUTELY HAZARDOUS WASTES must be triple rinsed with an appropriate solvent or cleaned by an equivalent method. The pressure in cylinders of compressed gas and aerosol cans must be substantially equivalent to atmospheric pressure.

Containers which once held pesticides regulated under FIFRA must be empty according to label instructions.

- c. Untreated medical waste - Any waste capable of inducing infection due to contamination with infectious agents from bio-medical sources including but not limited to a hospital, medical clinic, nursing home, medical practitioner, mortuary, taxidermist, veterinarian, veterinary hospital, animal testing laboratory, or medical testing laboratory. Sharps from these sources must be rendered harmless or placed in needle puncture-proof containers.
- d. Treated medical waste - Any wastes from a bio-medical source including but not limited to a hospital, medical clinic, nursing home, medical practitioner, mortuary, taxidermist, veterinarian, veterinary hospital, animal testing laboratory, or medical testing laboratory which has been autoclaved or otherwise heat treated or sterilized so that it is no longer capable of inducing infection. Any sharps from these sources must be rendered harmless or placed in needle puncture-proof containers. Residue from incineration of medical waste is a "Type A Special Waste".
- e. Residue/sludges from septic tanks, food service grease traps, or washwaters and wastewaters from commercial laundries, laundromats, and car washes, unless these wastes are managed at some kind of public treatment works.
- f. Chemical-containing equipment removed from service, in which the chemical composition and concentration are unknown.



SECTION 1  
PRODUCT IDENTIFICATION



**MATERIAL SAFETY DATA SHEET**

THE SHERWIN-WILLIAMS CO.  
101 PROSPECT AVE., N.W.  
CLEVELAND, OH 44115

EMERGENCY TELEPHONE NO.  
(216) 566-2817  
INFORMATION TELEPHONE NO.  
(216) 566-2902

DATE OF PREPARATION  
1-Apr-94

©1994, The Sherwin-Williams Co.

**KEM TRANSPORT® Synthetic Enamel**

ENL/2

CAS No.	HAZARDOUS INGREDIENT (Percent by weight)	ACOH TLY <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	V2329 Temperature Controlled	V61253 FAST-CAT® Hazard	V61254 HS Enamel Hazard	(H)(U)(L) Fast	(S)(U)(L) SUPER-FLO® Medium	RPK0216 Fast	RK0183 FLO-GLO® Fast	RK0179 SUPER-FLO® Medium
84742-99-9	Light Aliphatic HC Solvent	100	100	PPM	65.0				45		48	31	
84742-44-9	V. M. & P. Naptha	300	300	PPM	12.0					27		7	38
84742-47-6	Miscel Solvib	100	100	PPM	2.0								7
100-10-3	Toluene	50	100	PPM (Skin)	22.0				54		18	15	8
100-11-4	Ethylbenzene	100	100	PPM	7.1	3	2			10			
100-20-7	Xylene	100	100	PPM	5.8	14	48	13		54		3	1
84742-93-8	Light Aromatic Hydrocarbons	Not Established			2.8		1	4		1			4
100-87-8	1,2,5-Trimethylbenzene	25	25	PPM	10.0		2	5			3		1
95-83-6	1,2,4-Trimethylbenzene	25	25	PPM	2.0		3	7			4		2
67-56-1	Methanol	200	200	PPM (Skin)	92.0							4	4
78-43-1	2-Methyl-1-propanol	50	50	PPM	8.7	83							
111-26-2	1-Butoxyethanol	25	25	PPM (Skin)	6.0								6
50-00-0	Formaldehyde (Formalin)	1	1	PPM	760.0	5							
67-64-1	Acetone	750	750	PPM	180.0						4	38	31
78-93-3	Methyl Ethyl Ketone	800	200	PPM	70.0						27		
100-10-1	Methyl Isobutyl Ketone	50	50	PPM	18.0							3	
123-86-4	n-Butyl Acetate	150	150	PPM	10.0		4	9					
108-05-6	1-Methyl-2-Propanol Acetate	Not Established			1.8								2
Unknown	Isophorone Diisocyanate Polymer	Not Established				30	30	60					
4058-71-9	Isophorone Diisocyanate Monomer	0.005		PPM (Skin)		0.3	0.3	0.6					
	Weight per Gallon (lbs.)					8.40	7.80	8.54			8.42	8.47	8.57
	VOC - Total Volatile Organic Compounds (lb./gal.)					4.62	5.45	3.42			6.42	6.47	6.57
	VOC - Less Water and exempt Solvents (lb./gal.)					4.62	5.45	3.42			6.42	6.47	6.57
	Photochemically Reactive					Yes	Yes	Yes	Yes	Yes	No	No	No
	Flash Point (°F) / DOT Storage Category					80 / 1C	80 / 1C	95 / 1C	95 / 1C	95 / 1C	17 / 1B	4 / 1B	3 / 1B
	HMIS (HCPA) Rating (Health - Fire - Reactivity) / PAINT-SAFED Code					2 / 3 / 0 / 3	2 / 3 / 0 / 3	3 / 3 / 0 / K	3 / 3 / 0 / K	3 / 3 / 0 / 3	3 / 3 / 0 / 3	3 / 3 / 0 / 3	3 / 3 / 0 / 3

† Ingredient subject to the reporting requirements of the Reporting Amendments and Recalculation Act (SARA) Section 318, 40 CFR 372.15 (c)

MSDS Text Page Follows

# MATERIAL SAFETY DATA SHEET



**WESTERN**  
Automotive Finishes  
101 PROSPECT AVE. N.W.  
CLEVELAND, OH 44115

EMERGENCY TELEPHONE NO.  
(216) 566-2817  
INFORMATION TELEPHONE NO.  
(216) 566-2802

DATE OF PREPARATION  
12 - Oct - 92 (Part 85 Info. sheet 12/88)  
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## WES-THANE™ Acrylic Urethane System

UREW

SECTION II CAS No. HAZARDOUS INGREDIENT (percent by weight)	ACQUH TLY <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	WPT Series		Hardener	Reducers			W7687 Floxya Eimhater	
					LEAD FREE	CONTAINS LEAD		W7800 Standard Reducer	W7891 Hot Weather Reducer	W7892 Retarder		
100-41-4 § Ethylbenzene	100 <125>	100 <125>	PPM	7.1	7		W7888 Hardener					
1890-20-7 † Xylene.	100 <150>	100 <150>	PPM	5.8	40							
95-63-8 § 1,2,4-Trimethylbenzene	25 <200>	25 <200>	PPM	2.0	1							
123-98-4 n-Butyl Acetate.	150 <200>	150 <200>	PPM	10.0	35-55	1		87	55			95
112-07-2 § 2-Butoxyethyl Acetate.	50		PPM	1.0	0-1	0-1		2	26			
108-85-8 1-Methoxy-2-Propanol Acetate	Not Established			1.8	0-5	0-5		11	18			
108-86-0 Dimethyl Succinate.	51		PPM Special Limit	0.3					1	28		
1119-10-0 Dimethyl Glutarate.	67		PPM Special Limit	0.1					3	70		
Propriet. Hexamethylene Diisocyanate Polymer.	0.5 <1.0>		Mg/M3 Special Limit		45							
822-00-0 Hexamethylene Diisocyanate Monomer	0.005		PPM	0.025	0.8							
19463-87-7 Titanium Dioxide.	10	15(5)	Mg/M3 as Dust IRed. Fraction		0-30	0-30						
1344-37-2 Lead Chromate.	0.05	0.05	Mg/M3		<25							
18638-85-8 Molybdate Orange.					25(15.2)							
§ Lead compound (maximum) [% Lead]					25(2.8)							
§ Chromium compound (maximum) [% Chromium]												
Weight per Gallon (lbs.)					9.1-10.5	8.1-10.5		8.07	7.80	9.15		7.34
VOC - Total Volatile Organic Compounds (lbs./gal.)					4.2-5.0	4.2-5.0		4.46	7.39	9.15		6.97
VOC - Less Water and exempt Solvents (lb./gal.)					4.2-5.0	4.2-5.0		4.46	7.39	9.15		6.97
Photochemically Reactive					No	No	Yes	No	No	No	No	No
Flash Point (°F)					72	72	77	72	72	202	72	72
Flammability Classification					Flammable	Flammable	Flammable	Flammable	Flammable	Not Applicable	Flammable	Flammable
DOL Storage Category					1B	1B	1C	1B	1B	3B	1B	1B
HMIS* (NTPA) Rating (health - fire - reactivity)					2.3.0	2.3.0	2.3.1	2.3.0	2.3.0	1.1.0	2.3.0	2.3.0
PAINT-SAFE® Personal Protection					K	K	K	K	K	K	K	K

§ ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

Date Printed 04/15/97

Waste Management, Inc.

GENERATOR'S WASTE PROFILE SHEET

Profile # HOS A01517

( ) Check here if this is a Recertification LOCATION OF ORIGINAL Industrial Waste Division

GENERAL INFORMATION

1. Generator Name: STAR TOOL CO Generator USEPA ID: EXEMPT
2. Generator Address: 1000 NW COUNTY RD Billing Address: ( ) Same
HOBBS NM 88240
3. Technical Contact/Phone: SIDNEY 505/397-4988
4. Alternate Contact/Phone: Billing Contact/Phone:

PROPERTIES AND COMPOSITION

5. Process Generating Waste: MAINTENANCE DEPT FLEET
6. Waste Name: USED OIL FILTERS (DRAINED)
7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes ( ) No (X)
7B. Identify ALL USEPA listed and characteristic waste code numbers (D,F,K,P,U):
State Waste Codes:
8. Physical State @ 70F: A. Solid (X) Liquid ( ) Both ( ) Gas ( ) B. Single Layer ( ) Multilayer (X) C. Free liq. range 0 to 0%
9A. pH: Range or Not applicable (X) B. Strong Odor ( ); describe
10. Liquid Flash Point: < 73F ( ) 73-99F ( ) 100-139F ( ) 140-199F ( ) >= 200F ( ) N.A. (X) Closed Cup (X) Open Cup ( )

11. CHEMICAL COMPOSITION: List ALL constituents (incl. halogenated organics) present in any concentration and forward analysis
Constituents Range Unit Description
OIL FILTERS (DRAINED) to 100 %
TOTAL COMPOSITION (MUST EQUAL OR EXCEED 100%): 100.000000

12. OTHER: PCBs if yes, concentration ppm, PCBs regulated by 40 CFR 761 ( ), Pyrophoric ( ) Explosive ( )
Radioactive ( ) Benzene if yes, concentration ppm, NESHAP ( ) Shock Sensitive ( ) Oxidizer ( )
Carcinogen ( ) Infectious ( ) Other
13. If waste subject to the land ban & meta treatment standards, check here: & supply analytical results where applicable.

SHIPPING INFORMATION

14. PACKAGING: Bulk Solid (X) Bulk Liquid ( ) Drum ( ) Type/Size: OTHER Other 3 CU. YD. CONTAINER
15. ANTICIPATED ANNUAL VOLUME: 40 Units: CUBIC YARDS Shipping Frequency: MONTH

SAMPLING INFORMATION

16a. Sample source (drum, lagoon, pond, tank, vat, etc.): Sample Tracking Number: 4896864
Date Sampled: Sampler's Name/Company:
16b. Generator's Agent Supervising Sampling: 17. ( ) No sample required (See instructions.)

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize WMD to obtain a sample from any waste shipment for purposes of recertification.

Signature SIDNEY MCCORMICK VP Date 4/14/97



Date 4/15/97  
Time 17:28:06

WASTE MANAGEMENT DECISION

Page . . . : 2

Location of Original WESTERN REGION LAB

I. Generator and Facility Information

Tracking #: 4896864 Priority : HB  
Office # : A01517 Date Received: 04/15/97  
Effective Date: 04/15/97  
Generator : STAR TOOL CO  
Waste Category Code:  
Description : USED OIL FILTERS (DRAINED)

Decision Site Hobbs Landfill  
Proposed Management Facility Hobbs Landfill

\*\*\* This Decision is APPROVED

IV. Continuation.....

Final Approval \_\_\_\_\_ Name (print) RAYMOND RUTKOWSKI Date 04/15/97

**ATTACHMENT 6**

(Waste Water Recovery and Recycling System Drawing)



