TEXACO STATION #63-232-0037 (UST: 4440)
LUST # 2298
KING / Seattle

EXCAVATION AND SOIL SAMPLING

AT

FORMER TEXACO FACILITY 63-232-0037
8701 GREENWOOD AVENUE NORTH
SEATTLE, WASHINGTON

ECOLOGY TCP IDENTIFICATION NO. 2868
ERI JOB 31001.R08
May 30, 1997

Prepared for

TEXACO REFINING AND MARKETING INC.
ENVIRONMENT, HEALTH & SAFETY
3400 188TH STREET SW, SUITE 630
LYNNWOOD, WASHINGTON 98037

Prepared by

ENVIRONMENTAL RESOLUTIONS, INC.

ERI
ENVIRONMENTAL
RESOLUTIONS, INC.

DEPARTMENT OF ECOLOGY
NWRO/TCP TANK UNIT

INTERIM CLEANUP REPORT	☐
SITE CHARACTERIZATION	☐
FINAL CLEANUP REPORT	☐
OTHER Post IRAP work	☐
AFFECTED MEDIA: SOIL	☒
OTHER ____ GW	☐
INSPECTOR (INIT.) RW	DATE 11/21/97

EXCAVATION AND SOIL SAMPLING

at

Former Texaco Facility 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington

ERI Job 31001.R08

Prepared for

Texaco Refining and Marketing Inc.
Environment, Health & Safety
3400 188th Street SW, Suite 630
Lynnwood, Washington 98037

by

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May 30, 1997

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Texaco Refining
and Marketing Inc

3400 188th Street SW
Suite 630
Lynnwood WA 98037

June 9, 1997

ENV - SERVICE STATIONS
Excavation and Soil Sampling Report
Texaco Location # 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington

Mr. Roger Nye
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Dear Mr. Nye:

Enclosed is the 'Excavation and Soil Sampling' report for referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) for Texaco Environment, Health & Safety. The report details sampling and removal of hydrocarbon-impacted soil, conducted in conjunction with ongoing retail facility construction activities at the site. Also documented in this report is additional excavation, sampling and monitoring activities conducted in the public right of way (along North 87th Street south of the site) to allow installation of the new water service.

If you have any questions please contact me at (206) 774-6090, extension 224.

Sincerely,

T. A. Geijer

Theresa A. Geijer
Project Coordinator
Texaco Environment, Health & Safety

TAG:tag
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Enclosure

cc: Mr. R. Isackson-Village Properties (w/enclosure)
Mr. M. Nesteroff-LPSL (w/enclosure)
Ms. Shab Zand-SPU (w/enclosure)

RLLane-File (w/enclosure)

PR: SOB

EXCAVATION AND SOIL SAMPLING
at
Former Texaco Facility 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington
For
Texaco Refining and Marketing Inc.
Environment, Health & Safety

1.0 INTRODUCTION

As requested by Texaco Refining and Marketing Inc., Environment, Health & Safety (TRMI-EH&S), Environmental Resolutions, Inc. (ERI) has prepared this report documenting results of excavation, environmental monitoring, and soil sampling activities conducted during February and March 1997 at former Texaco Facility 63-232-0037, 8701 Greenwood Avenue North, Seattle, Washington (Plate P-1). Soil excavation and sampling activities were performed at the southeastern portion of the site and in the public right of way to the south and east to remove hydrocarbon-impacted soil identified during installation of new water service to the property. ERI coordinated with Bayley Construction, Inc. (Bayley), the building contractor, and Seattle Public Utilities (SPU) to provide environmental monitoring and soil assessment services during excavation and water service installation.

2.0 BACKGROUND

Soil and groundwater assessment and remediation activities have been conducted at the site since 1991. Excavation activities were conducted in 1994 to remove hydrocarbon-impacted soil near the former fuel dispensing facilities and waste oil underground storage tank (UST) during station demolition activities. In addition, a combined air sparging/vapor extraction system operated between December 1994 and June 1995 to remove hydrocarbons from groundwater. The property was sold to Seattle/Village Partnership (Village) in June 1995.

Results of these and previous assessment and remediation activities were summarized in the *Independent Remedial Action Report* dated January 5, 1996 prepared by ERI and submitted to the Washington State Department of Ecology (Ecology) for review under the Independent Remedial Action Program (IRAP). Following review of the IRAP report, on July 31, 1996 Ecology issued a no further action determination for the site notifying TRMI-EH&S and the new site owner that no further cleanup action would be required. The determination required that a restrictive covenant be placed on the property deed identifying areas of remaining impacted soil, and that potential new areas of impacted soil identified during construction be removed as practicable. The covenant also required that groundwater samples be collected from downgradient monitoring well AGW-6 and submitted for hydrocarbon analyses on a twice-yearly basis to monitor groundwater conditions.

In September 1996, Village and Bayley began construction of an approximately 12,000-square-foot retail building with adjacent paved parking. During construction, additional areas of hydrocarbon-impacted soil were encountered. Impacted material in these areas was removed as practicable and transported off site for treatment and recycling. Soil excavation activities were observed by ERI and samples were collected and submitted for laboratory analysis. Excavation activities and laboratory results were presented in ERI's *Excavation and Soil Sampling Report* dated March 15, 1996, and *Excavation, Soil Sampling, and Construction Coordination* report dated February 4, 1997.

3.0 PURPOSE AND SCOPE OF SERVICES

The purpose of this investigation was to provide environmental monitoring and assessment services to the building contractor and SPU on behalf of TRMI-EH&S to assist in removal of impacted soil prior to installation of new water service.

To meet these objectives, ERI completed the following tasks:

- Discussed the site conditions and known environmental concerns at the site with the building contractor and representatives of SPU to identify areas of known and potentially impacted soil;
- Performed environmental monitoring activities during excavation and new water service installation;
- Observed site conditions, monitored vapor concentrations, and collected air, soil, and water samples for laboratory analysis;
- Observed excavation and removal of hydrocarbon-impacted soil and collected confirmation soil samples;
- Submitted soil, water, and air samples to be analyzed for hydrocarbon compounds and total lead;
- Coordinated waste profiling and transportation and disposal of hydrocarbon-impacted soil and water;
- Prepared this report summarizing investigative methods, laboratory analytical results, and findings.

4.0 FIELD ACTIVITIES

4.1 Initial Soil Sampling

Based on a request by the building contractor, ERI visited the site on February 12, 1997 to observe stockpiled soil at the southeastern portion of the property that Bayley had excavated during construction. The stockpile consisted of approximately 1 to 2 cubic yards of soil. Soil sample SP-021297 was collected from excavated stockpiled soil, placed into a sealed glass jar, and submitted for 24-hour rush analyses. The soil sample location and laboratory results are shown on Plate P-2 and Table T-1.

On February 17, 1997, ERI returned to the site to observe additional stockpiled soil excavated by SPU personnel from beneath the sidewalk in the adjacent right of way immediately south of the property. Excavation had been undertaken to allow installation of new 8-inch-diameter water service to the new building. Based on the suspected presence of impacted materials, SPU crews halted further work and returned excavated material to the excavation. Prior to backfilling, a small quantity of suspected impacted material was set aside in a separate stockpile for sampling. Stockpile soil sample SP-0217 was subsequently collected from the excavated stockpiled soil by ERI, placed into a sealed glass jar, and submitted for 24-hour rush analyses (Plate P-2 and Table T-1).

Based on the soil sample laboratory results, ERI met with representatives of TRMI-EH&S, SPU, Village, and Bayley to discuss possible environmental concerns related soil excavation and installation of the new water service. A representative of ESE Corporation (ESE), a soil excavation contractor was also in attendance on behalf of TRMI-EH&S. Areas of known or potentially impacted soil were identified and plans for excavation and water service installation discussed. Based on results of the meetings, ERI was asked to provide environmental monitoring and soil sampling services on behalf of TRMI-EH&S during removal of impacted soil, and subsequent installation of new water service by SPU personnel.

4.2 Excavation and Soil Sampling

During February 17 through 19, 1997, ERI visited to the site to observe removal of impacted soil at the southeastern portion of the property. The area of excavation is bounded by a concrete foundation footing to the north, east, and south. The area of excavation is shown on Plate P-3 (Excavation 1A). Soil excavation activities were performed by ESE on behalf of TRMI-EH&S. Soil was removed from the surface to approximately 5 feet below ground surface (bgs) where peat was encountered. Seepages of water were observed entering through pea gravel encountered at the northeastern portion of the excavation. Excavation to the northeast was halted to avoid flooding the excavation with water from the backfilled former gasoline and diesel UST basin. Impacted soil in remaining directions was then removed to within approximately one foot of the building structures, or until photoionization detector (PID) readings indicated a reduction in hydrocarbon levels. Approximately 100 gallons of water were removed from the excavation and discharged to the sanitary sewer under an authorization from the King County Water Pollution Control Division (Metro). Soil samples were then collected at the limits of the excavation, placed into laboratory-supplied glass containers, and submitted for 24-hour rush analyses. The excavation was subsequently backfilled with clean imported fill material and the site restored to original grade. Laboratory results are shown on Plate P-3 and Tables T-1 and T-2.

On March 10, 1997, ERI and ESE returned to the site to remove impacted soil from a separate excavation in the public right of way along North 87th Street south of the site to allow installation of the new water service (Plate P-3; Excavation 1B). Traffic control was provided by National Barricade according to a plan approved by Seattle Engineering. Excavation activities were performed by ESE and observed by ERI and representatives from SPU. Soil was removed from the surface to depths ranging between approximately 5 and 6 feet bgs where peat was encountered. Water observed accumulating in the bottom of the excavation was removed and temporarily stored on-site in DOT-approved 55-gallon drums. Soil samples were then collected at the limits of the excavation, placed into laboratory-supplied glass containers, and submitted for 24-hour rush analyses. One sample (EXWATER) collected from the water removed from the excavation was also submitted for laboratory analysis. Excavation water was subsequently transported off site for treatment and recycling.

4.3 Air Monitoring

During excavation activities on March 10, 1997, ERI performed air monitoring and sampling activities to evaluate site conditions. During site activities, air in and around the work area was continuously monitored with a direct-reading Gastech GT 200 gas indicator calibrated to hexane and equipped with an oxygen meter. Hydrocarbon readings collected in and around the immediate work area during site activities generally ranged between 0 and 20 parts per million (ppm). Oxygen readings remained constant at background levels. During and after excavation activities, air samples were collected according to National Institute for Occupational Safety and Health (NIOSH) Method 1501 for hydrocarbons by using a Gilian Gil-Air personal air sampling pump equipped with a constant flow, low flow module, and charcoal sample tube. Prior to sampling, the instrument was calibrated using a Buck Calibrator Model M-4. Two air samples, A1 and A2, were collected from the air within the northern and southern portions of the excavation, respectively, and the samples submitted for hydrocarbon analyses. Air sampling flow rates, sampling intervals, and laboratory results are shown on Table T-3.

4.4 Water Service Installation

Laboratory results of air and soil samples were reported by the laboratories on March 11, 1997 and the information immediately relayed to SPU for review. Based on their review of the information, on March 12, 1997, SPU work crews began installing the proposed 8-inch diameter water service. Hydrocarbon concentrations in the air immediately surrounding and within the excavation were monitored throughout the day by ERI using a PID calibrated to hexane. Readings collected in and around the immediate work area generally ranged between 0 and 20 ppm. Vapor concentrations were also monitored by SPU personnel using direct-reading instruments. On March 14, 1997, water service installation work was completed. The newly installed piping was then wrapped with several layers of protective plastic sheeting by SPU personnel, and the excavation backfilled with controlled density fill according to SPU requirements.

Between March 10 and 13, 1997, three smaller areas (Excavations 2, 3, and 4) were excavated to depths of approximately 3 feet bgs in the public right of way along Greenwood Avenue North to the east of the site (Plate P-3). The excavations were required to retire older water lines and install new service. PID readings collected in and around the immediate work areas generally ranged between 0 and 20 ppm. Prior to abandonment and installation activities, soil samples were collected from the excavations and submitted for laboratory analysis. Following the completion of work, the excavations were backfilled with controlled density fill according to SPU requirements.

5.0 CHEMICAL ANALYSES

Soil samples collected between February 18 and March 10, 1997, were submitted to the North Creek Analytical Inc. laboratory in Bothell, Washington, for analysis. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using Ecology Method WTPH-G/EPA Method 8020A, and for total petroleum hydrocarbons as diesel (TPH-D) and as oil (TPH-O) using Ecology Method WTPH-D (extended). The stockpiled soil sample collected on February 12, 1997 was also analyzed for total lead using EPA Method 7420. Copies of laboratory reports are provided in Appendix A.

On March 25, 1997, selected soil samples were submitted for additional analyses. Sample EX-BN-5 collected on March 10, 1997 was additionally analyzed for volatile petroleum hydrocarbons (VPH), methyl tertiary butyl ether (MTBE), BTEX, and naphthalene using the Ecology WDOE Interim TPH Policy

Method. Sample EX-BS-6 collected on March 10, 1997 and sample EX4-E-3 collected on March 13, 1997 were additionally analyzed for extractable petroleum hydrocarbons (EPH) and polynuclear aromatic hydrocarbons (PAH) using the Ecology WDOE Interim TPH Policy Method. Copies of laboratory reports are provided in Appendix A.

Air samples collected on March 10, 1997 were submitted to OMS Laboratories, Inc. in Seattle, Washington, for analysis. The samples were analyzed for benzene, gasoline, diesel, and total hydrocarbons using NIOSH Method 1501 using gas chromatography. Copies of laboratory reports are provided in Appendix A.

Soil samples collected on March 13, 1997 and the excavation water sample collected on March 14, 1997 were submitted to Columbia Analytical Services, Inc. in Bothell, Washington, for analysis. The soil samples were analyzed for TPH-G and BTEX using Ecology Method WTPH-G/EPA Method 5030A/8020, and for TPH-D and TPH-O using Ecology Method WTPH-D (extended). The water sample was analyzed for total oil and grease using EPA Method 413.1, and for benzene, toluene, and ethylbenzene using EPA Method 5030A/8020. Copies of laboratory reports are provided in Appendix A.

6.0 RESULTS

Laboratory results indicate that initial soil samples SP-021297 and SP-0217 collected from stockpiled soil contained concentrations of TPH-G, TPH-D, TPH-O, benzene, ethylbenzene, or total xylenes exceeding Model Toxics Control Act (MTCA) Method A Cleanup Levels. Laboratory results are shown on Plate P-2 and Table T-1.

Laboratory results indicate that soil samples EXS3-5 and EXE-5 collected from the southern and eastern portions of the on-site excavation (Excavation 1A) contained TPH-O concentrations of 985 and 402 ppm, respectively, exceeding the MTCA Method A Cleanup Level of 200 ppm. Sample EXE-5 also contained 147 ppm TPH-G and 459 ppm TPH-D, exceeding the MTCA Method A Cleanup Levels of 100 ppm and 200 ppm, respectively. Remaining samples collected from Excavation 1A contained analyte concentrations below MTCA Method A Cleanup Levels (Plate P-3 and Table T-1).

Laboratory results indicate that three of the four soil samples (EX-N-4, EX-WN-4, and EX-BN-5) collected from the northern portion of the new water service excavation (Excavation 1B) contained TPH-G concentrations ranging between 120 and 170 ppm, exceeding the MTCA Method A Cleanup Level of 100 ppm. Results of additional analyses using the WDOE Interim TPH Policy Method indicate that hydrocarbons detected in sample EX-BN-5 consist primarily of C8-C12 aliphatic and C8-C12 aromatic fractions; MTBE, BTEX, and naphthalene were not detected. Remaining analyte concentrations in soil samples collected from the northern portion of the excavation were below MTCA Method A Cleanup Levels (Plate P-3; Tables T-1 and T-2).

Laboratory results indicate that the four soil samples collected from the southern portion of Excavation 1B (EX-BS-6, EX-WS-5, EX-S-5, and EX-ES-5) contained TPH-D concentrations ranging between 354 and 1,610 ppm, and TPH-O concentrations ranging between 712 and 2,270 ppm, exceeding the MTCA Method A Cleanup Level of 200 ppm. Results of additional analyses using the WDOE Interim TPH Policy Method indicate that the hydrocarbons detected in EX-BS-6 consist primarily of C21-C34 aliphatic and C21-C34 aromatic fractions. PAH concentrations ranged from below the method reporting limit (MRL) to

0.623 ppm, with the sum of the carcinogenic PAH concentrations exceeding the MTCA Method A Cleanup Level of 1.0 ppm. Concentrations of four compounds also exceeded their respective MTCA Method B Cleanup Levels. Remaining analyte concentrations in soil samples collected from the southern portion of the excavation were below MTCA Method A Cleanup Levels (Plate P-3; Tables T-1 and T-2).

Laboratory results indicate that soil sample EX2-E-3 collected from Excavation 2 contained analyte concentrations below MTCA Method A Cleanup Levels. Soil samples collected from Excavation 3 (EX3-E-3) and Excavation 4 (EX4-E-3) contained TPH-O concentrations of 252 ppm and 348 ppm, respectively, exceeding the MTCA Method A Cleanup Level of 200 ppm. Remaining analyte concentrations were below MTCA Method A Cleanup Levels. Results of additional analyses using the WDOE Interim TPH Policy Method indicate that the hydrocarbons detected in EX4-E-3 consist primarily of C21-C34 aliphatic and C21-C34 aromatic fractions. PAH concentrations ranged from below the MRL to 0.616 ppm, with the sum of the carcinogenic PAH concentrations exceeding the MTCA Method A Cleanup Level of 1.0 ppm. Concentrations of five compounds also exceeded their respective MTCA Method B Cleanup Levels (Plate P-3; Tables T-1 and T-2).

Laboratory results indicate that air samples A1 and A2 collected from within Excavation 1B contained gasoline, diesel, and total hydrocarbons concentrations up to 3.8, 1.4, and 5.0 mg/m^3, respectively. Samples A1 and A2 also contained benzene concentrations of 0.05 mg/m^3 (0.02 ppm) and 0.15 mg/m^3 (0.05 ppm), respectively (Table T-3).

Laboratory results indicate that water sample EXWATER collected from water accumulated in Excavation 1B on March 14, 1997 contained 287 ppm total oil and grease, 37 parts per billion (ppb) benzene, 340 ppb toluene, and 290 ppb ethylbenzene.

7.0 WASTE DISPOSAL

Between February 18 and March 10, 1997, approximately 85 cubic yards (130 tons) of soil were excavated and transported to the TPS Technologies, Inc. facility in Tacoma, Washington, for treatment and recycling. Approximately 50 cubic yards (75 tons) of clean fill was imported and backfilled into Excavation 1A to restore the site to original grade. Excavations 1B, 2, 3, and 4 were backfilled with controlled density fill in accordance with SPU requirements. Soil disposal manifests and weigh tickets are provided in Appendix B.

Approximately 100 gallons of water removed from Excavation 1A were discharged to the sanitary sewer under an authorization from Metro. A copy of the Metro authorization letter is provided in Appendix C. Approximately 60 gallons of water removed from Excavation 1B were transported to the Spencer Environmental, Inc. facility in Portland, Oregon, for treatment and recycling.

8.0 CONCLUSIONS

During February and March 1997, ERI visited the site to monitor site conditions, collect soil, water, and air samples, and observe removal of hydrocarbon-impacted soil from separate excavations on site (Excavation 1A) and off site (Excavations 1B, 2, 3, and 4). Hydrocarbon-impacted soil was removed as practicable based on the locations of buildings, easements, and utilities. Following removal of impacted soil, samples were collected at the limits of the excavations and submitted for laboratory analysis.

Two soil samples collected from the southern and eastern portions of Excavation 1A following removal of impacted soil contained TPH-O concentrations exceeding MTCA Method A Cleanup Levels. One sample also contained 147 ppm TPH-G and 459 ppm TPH-D, exceeding MTCA Method A Cleanup Levels. Remaining samples contained analyte concentrations below MTCA Method A Cleanup Levels. The excavation was subsequently backfilled with clean imported fill and restored to grade.

Three of four soil samples collected from the northern portion of Excavation 1B contained TPH-G concentrations ranging between 120 ppm and 170 ppm, exceeding the MTCA Method A Cleanup Level of 100 ppm. Remaining analyte concentrations were below MTCA Method A Cleanup Levels. Results of additional analyses indicate that hydrocarbons detected in sample EX-BN-5 consist primarily of C8-C12 aliphatic and C8-C12 aromatic fractions.

All four soil samples collected from the southern portion of Excavation 1B contained TPH-D and TPH-O concentrations exceeding MTCA Method A Cleanup Levels. Concentrations of TPH-G were below MTCA Method A Cleanup Levels in the same four samples. Results of additional analyses indicate that hydrocarbons detected in sample EX-BS-6 consist primarily of C21-C34 aliphatic and C21-C34 aromatic fractions. Concentrations of four PAH compounds exceeded their respective MTCA Method B Cleanup Levels. The sum of the carcinogenic PAH concentrations also exceeded the MTCA Method A Cleanup Level of 1.0 ppm.

The soil sample collected from Excavation 2 contained analyte concentrations below MTCA Method A Cleanup Levels. Soil samples collected from Excavations 3 and 4 contained concentrations of TPH-O exceeding MTCA Method A Cleanup Levels. Remaining analyte concentrations were below MTCA Method A Cleanup Levels in the same two samples. Results of additional analyses indicate that hydrocarbons detected in sample EX4-E-3 consist primarily of C21-C34 aliphatic and C21-C34 aromatic fractions. Concentrations of five PAH compounds exceeded their respective MTCA Method B Cleanup Levels. The sum of the carcinogenic PAH concentrations also exceeded the MTCA Method A Cleanup Level of 1.0 ppm. Following the completion of site activities, Excavations 1B, 2, 3, and 4 were backfilled with controlled density fill in accordance with SPU requirements.

Sample EXWATER collected from water accumulated in Excavation 1B contained 287 ppm total oil and grease, 37 ppb benzene, 340 ppb toluene, and 290 ppb ethylbenzene. Water removed from the excavation was transported to the Spencer Environmental, Inc. facility in Portland, Oregon for treatment and recycling.

9.0 LIMITATIONS

The site assessment investigation was conducted in accordance with generally accepted standards of environmental geological practice at the time performed. This investigation was conducted solely for the purpose of evaluating environmental conditions of the soil with respect to hydrocarbons at the subject site. No soil engineering or geotechnical implications are stated or should be inferred. The evaluation of the geologic conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away from the data points available.

10.0 REFERENCES

Environmental Resolutions, Inc., Independent Remedial Action Report dated January 5, 1996.

Environmental Resolutions, Inc., Excavation and Soil Sampling Report dated March 15, 1996.

Environmental Resolutions, Inc., Excavation, Soil Sampling, and Construction Coordination report dated February 4, 1997.

Washington State Department of Ecology, Toxics Cleanup Program, Ecology Publication No. ECY97-600, Interim Interpretive and Policy Statement, Cleanup of Total Petroleum Hydrocarbons (TPH), January, 1997 (Revised 1/30/97).

TABLE T-1
SOIL ANALYTICAL RESULTS
Former Texaco Facility 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington

Sample Name	Date Sampled	Depth	TPH-G	TPH-D	TPH-O	B	T	E	X	Pb
Initial Soil Samples										
SP-021297	2/12/97	NA	**4890**	**739**	**705**	**6.62**	<1.0	**45.6**	**38.6**	--
SP-0217	2/17/97	NA	**351**	<110	**389**	0.243	3.25	3.08	**21.2**	21.5
Excavation 1A										
EXN1-5	2/18/97	5	<5.0	<10.0	<25.0	<0.05	<0.05	<0.05	<0.10	--
EXN2-5	2/18/97	5	<5.0	<10.0	<25.0	<0.05	<0.05	<0.05	<0.10	--
EXS1-5	2/18/97	5	<5.0	<10.0	<25.0	<0.05	<0.05	<0.05	<0.10	--
EXS2-5	2/18/97	5	7.02	15.5	66.7	<0.05	<0.05	0.0865	0.330	--
EXW-5	2/18/97	5	<5.0	<10.0	<25.0	<0.05	<0.05	<0.05	<0.10	--
EXN3-5	2/19/97	5	83.8	14.1	49.3	<0.05	<0.05	0.589	0.359	--
EXS3-5	2/19/97	5	19.0	174	**985**	<0.05	<0.05	0.0767	0.291	--
EXE-5	2/19/97	5	**147**	**459**	**402**	0.0752	<0.05	0.268	0.393	--
Excavation 1B										
EX-N-4	3/10/97	4	**120**	38.4	132	<0.20	<0.20	0.212	0.679	--
EX-WN-4	3/10/97	4	**130**	28.2	136	0.218	0.124	0.197	0.686	--
EX-EN-4	3/10/97	4	<5.0	<10.0	44.2	<0.05	<0.05	<0.05	<0.10	--
EX-BN-5[1]	3/10/97	5	**170**	51.9	165	<0.10	0.125	0.456	0.863	--
EX-BS-6[1]	3/10/97	6	10.6	**374**	**2270**	<0.05	0.113	0.0600	0.357	--
EX-WS-5	3/10/97	5	<5.0	**520**	**788**	<0.05	<0.05	<0.05	<0.10	--
EX-S-5	3/10/97	5	<5.0	**354**	**712**	<0.05	0.130	<0.05	0.268	--
EX-ES-5	3/10/97	5	<5.0	**1610**	**799**	<0.05	<0.05	<0.05	<0.10	--
Excavation 2										
EX2-E-3	3/10/97	3	<5.0	16.0	75.5	<0.05	<0.05	<0.05	<0.10	--
Excavation 3										
EX3-E-3	3/13/97	3	7	68	**252**	<0.05	<0.1	<0.1	<0.1	--
Excavation 4										
EX4-E-3[1]	3/13/97	3	6	85	**348**	<0.05	<0.1	<0.1	<0.1	--
MTCA Method A Cleanup Level			100	200	200	0.5	40	20	20	250

EXPLANATION:
Depths are in feet below grade.
All concentrations in mg/kg (ppm).
Pb = Total Lead by EPA Method 7420.
BTEX = Aromatic compounds by EPA Method 8020.
B = Benzene; T = Toluene; E = Ethylbenzene; X = Total Xylenes.
TPH-G = Total Petroleum Hydrocarbons as Gasoline by Ecology Method WTPH-G.
TPH-D and TPH-O = Total Petroleum Hydrocarbons as Diesel and Oil, respectively, by Ecology Method WTPH-D (extended).
-- = Not Analyzed.
NA = Not applicable.
< = Less than the stated laboratory reporting limit.
Shaded values exceed MTCA Method A Cleanup Levels.
[1] Sample additionally analyzed using Ecology WDOE Interim TPH Policy Method; see Table T-2.

TABLE T-2
SOIL ANALYTICAL RESULTS
WDOE INTERIM TPH POLICY METHOD
Former Texaco Facility 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington

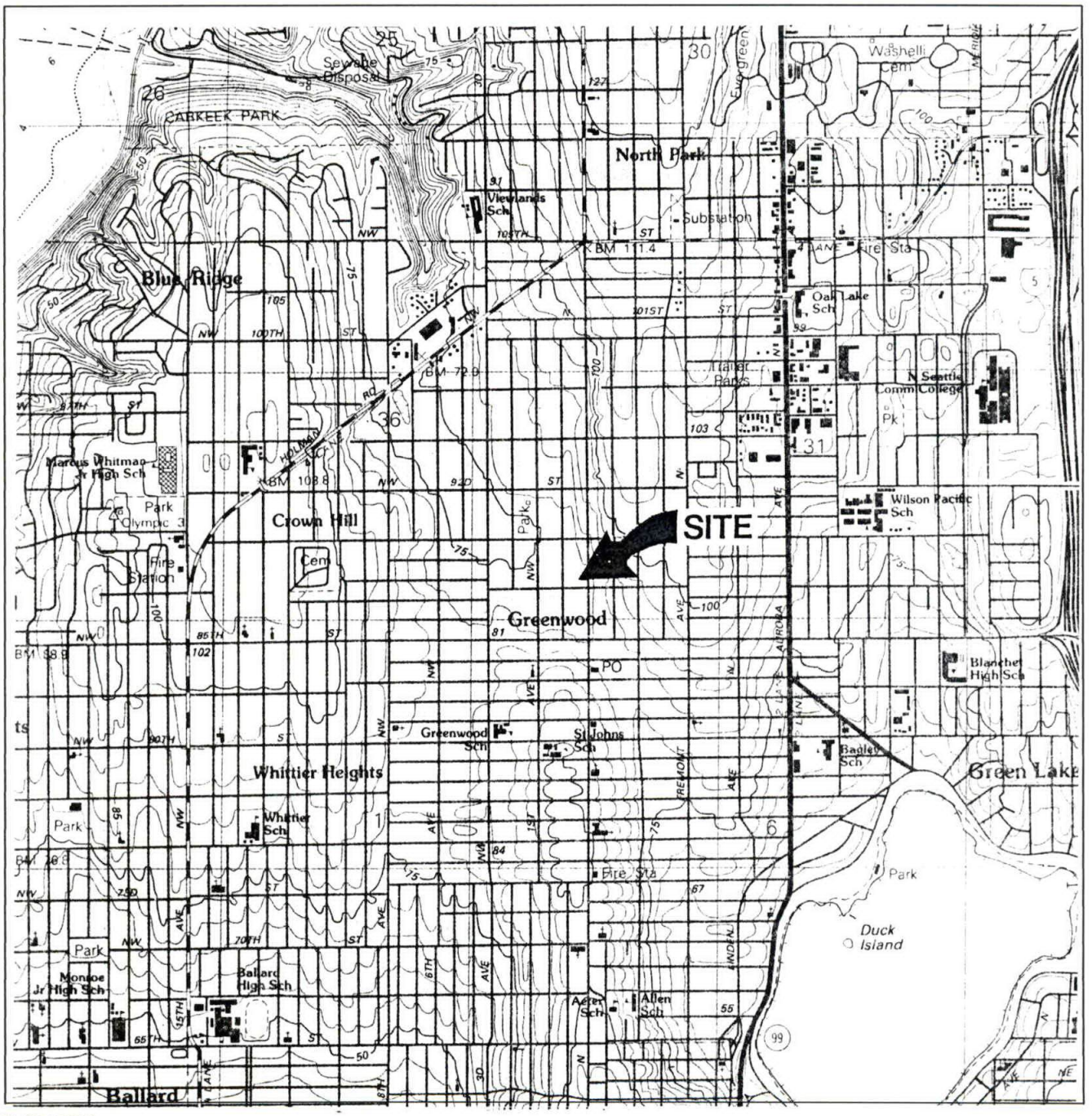
	EX-BN-5	EX-BS-6	EX4-E-3
Date Collected	3/10/97	3/10/97	3/13/97
Depth	5	6	3
VOLATILE PETROLEUM HYDROCARBONS (VPH)			
Aliphatics			
C5-C6	<5.0	--	--
C6-C8	<5.0	--	--
C8-C10	10.6	--	--
C10-C12	18.9	--	--
Aromatics			
C8-C10	5.34	--	--
C10-12	14.6	--	--
C12-13	<5.0	--	--
EXTRACTABLE PETROLEUM HYDROCARBONS (EPH)			
Aliphatics			
C8-C10	--	10.5	<5.0
C10-C12	--	16.9	<5.0
C12-C16	--	55.5	<5.0
C16-C21	--	44.2	6.98
C21-C34	--	426	119
Aromatics			
C10-C12	--	<10.0	<5.0
C12-C16	--	26.8	<5.0
C16-C21	--	69.5	10.5
C21-C34	--	602	136
MTBE	<1.0	--	--
Benzene*	<0.2	--	--
Toluene	<0.2	--	--
Ethylbenzene	<0.2	--	--
m,p-Xylene	<0.4	--	--
o-Xylene	<0.2	--	--
Acenaphthene	--	<0.04	<0.02
Acenaphthylene	--	<0.04	<0.02
Anthracene	--	0.0456	0.0363
Benzo(a)anthracene*	--	0.208 (0.137)	0.202 (0.137)
Benzo(a)pyrene*	--	<0.04	0.264 (0.137)
Benzo(b)fluoranthene*		0.324 (0.137)	0.279 (0.137)
Benzo(ghi)perylene	--	0.225	0.225
Benzo(k)fluoranthene*	--	0.113	0.111
Chrysene*	--	0.273 (0.137)	0.253 (0.137)
Dibenzo(a,h)anthracene*	--	0.0487	0.0419
Fluoranthene	--	0.514	0.338
Fluorene	--	<0.04	<0.02
Indeno(1,2,3-cd)pyrene*	--	0.163 (0.137)	0.218 (0.137)
2-Methylnaphthalene	--	0.0726	<0.02
Naphthalene	<0.2	<0.04	<0.02
Phenanthrene	--	0.279	0.201
Pyrene	--	0.623	0.616

EXPLANATION:
Depths are in feet below grade.
All concentrations in mg/kg (ppm).
MTBE = Methyl Tertiary Butyl Ether
-- = Not Analyzed.
< = Less than the stated laboratory reporting limit.
* = Known or suspected carcinogen.
Shaded values exceed MTCA Method B Cleanup Levels. Method B Cleanup Levels shown in parentheses where applicable.
Analyses by Ecology WDOE Interim TPH Policy Method; samples analyzed past the recommended maximum holding time.

TABLE T-3
AIR MONITORING ANALYTICAL RESULTS
Former Texaco Facility 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington
March 10, 1997

Sample Name	Location	Flow (cc/min)	Time (min)	Volume (liters)	Gasoline (mg/m^3)	Diesel (mg/m^3)	Total HC (mg/m^3)	Benzene (mg/m^3)	Benzene (ppm)[1]
A1	North End Excav. 1B	57	321	18.3	3.8	1.2	5.0	0.05	0.02
A2	South End Excav. 1B	177	76	13.5	3.8	1.4	4.5	0.15	0.05

EXPLANATION:
Total HC = Total Hydrocarbons
[1] Based on a conversion factor of 3.19 per NIOSH Manual of Analytical Methods, Fourth Edition.
Samples collected in charcoal tubes and analyzed using NIOSH Method 1501.



N

APPROXIMATE SCALE

0 1/2 1

MILE

Source: U.S.G.S. 7.5 x 15 minute topographic quadrangle map Seattle, North 1983

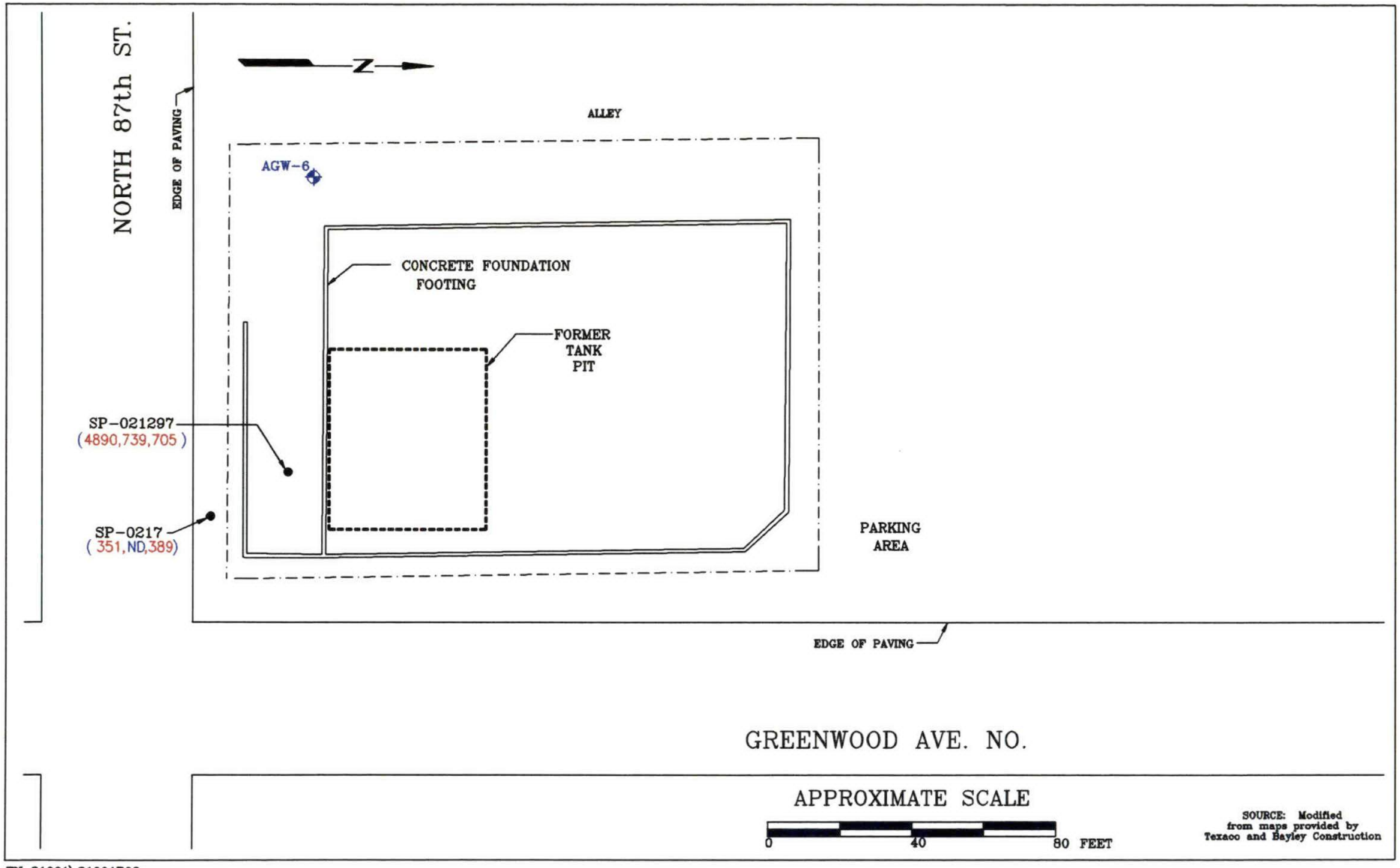
ERI ENVIRONMENTAL RESOLUTIONS, INC.

SITE VICINITY MAP

FORMER TEXACO FACILITY 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington

PROJECT 31001

PLATE P-1



FN 31001\31001R08

ENVIRONMENTAL RESOLUTIONS, INC.

INITIAL SOIL SAMPLE ANALYSES MAP

FORMER TEXACO
FACILITY 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington

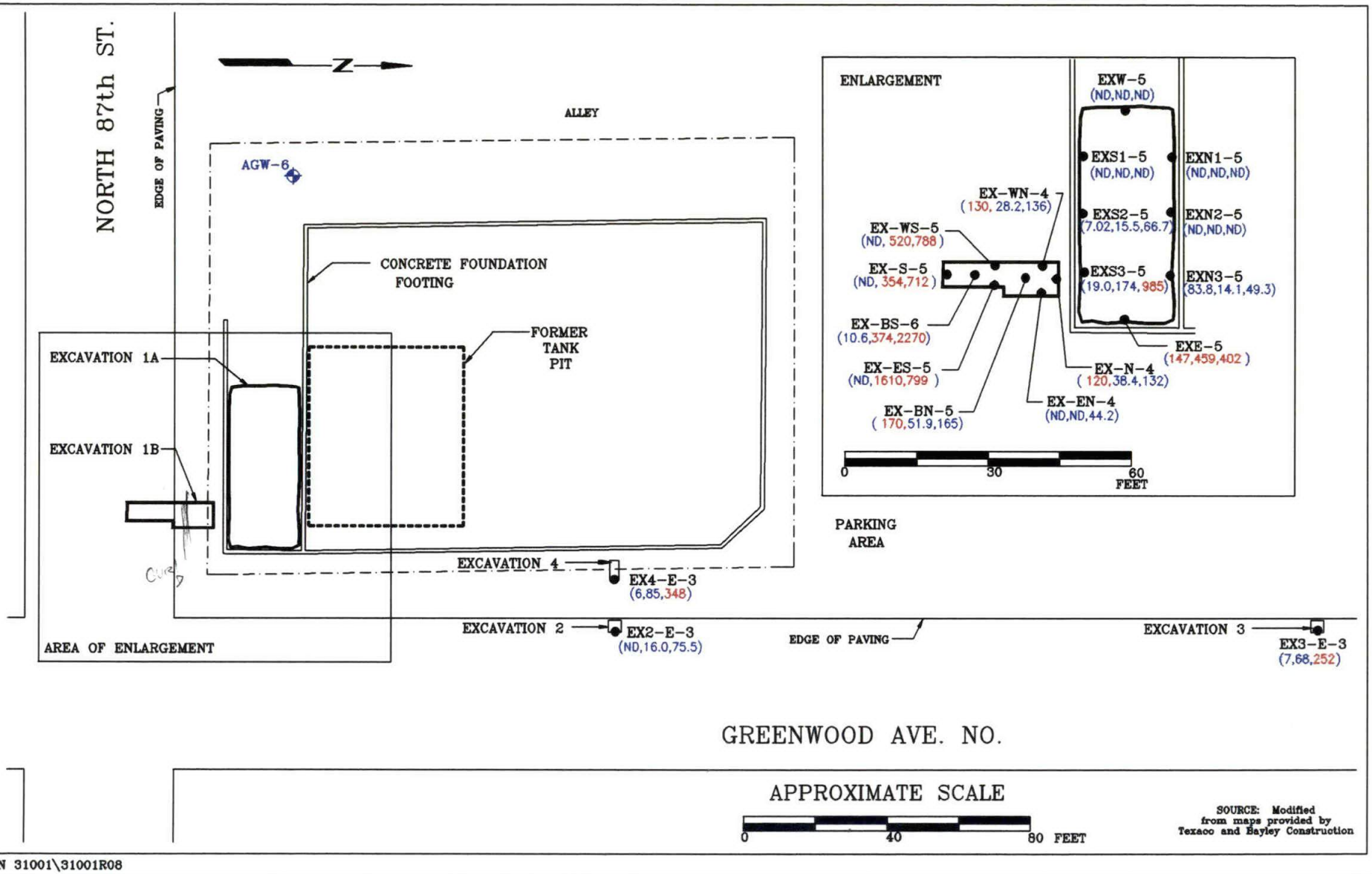
EXPLANATION

- SP-0217 Soil Sample Name and Location
- (351,ND,389) Laboratory Results in Parts Per Million
  - TPH-O Concentration
  - TPH-D Concentration
  - TPH-G Concentration
- Numbers in Red Exceed MTCA Method A Cleanup Levels
- AGW-6 Groundwater Monitoring Well

PROJECT NO. 31001

PLATE P-2

DATE: 05/21/97



FN 31001\31001R08

ENVIRONMENTAL RESOLUTIONS, INC.

EXCAVATION SOIL SAMPLE ANALYSES MAP

FORMER TEXACO
FACILITY 63-232-0037
8701 Greenwood Avenue North
Seattle, Washington

EXPLANATION

- EX-BS-6 — Soil Sample Name and Location
- (10.6, 374,2270) — Laboratory Results in Parts Per Million
  - TPH-O Concentration
  - TPH-D Concentration
  - TPH-G Concentration
- Numbers in Red Exceed MTCA Method A Cleanup Levels
- AGW-6 — Groundwater Monitoring Well

PROJECT NO. 31001

PLATE P-3

DATE: 05/21/97

APPENDIX A

LABORATORY REPORTS AND CHAIN OF CUSTODY

NORTH CREEK ANALYTICAL
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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

ERI	Project: Texaco Greenwood	Sampled: 2/12/97
1921 Edmonds Drive SE	Project Number: 31008	Received: 2/13/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 2/14/97 14:07

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SP-021297	B702166-01	Soil	2/12/97

Matthew Essig, Project Manager

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

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ERI	Project:	Texaco Greenwood	Sampled: 2/12/97
1921 Edmonds Drive SE	Project Number:	31008	Received: 2/13/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/14/97 14:07

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SP-021297			B702166-01				Soil	
Gasoline Range Hydrocarbons	0270239	2/14/97	2/14/97		100	**4890**	mg/kg dry	
Benzene	"	"	"		1.00	**6.62**	"	
Toluene	"	"	"		1.00	ND	"	
Ethylbenzene	"	"	"		1.00	**45.6**	"	
Xylenes (total)	"	"	"		2.00	**38.6**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*NR*	*%*	*1*
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*146*	"	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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ERI	Project:	Texaco Greenwood	Sampled: 2/12/97
1921 Edmonds Drive SE	Project Number:	31008	Received: 2/13/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/14/97 14:07

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SP-021297			B702166-01				Soil	2
Diesel Range Hydrocarbons	0270222	2/13/97	2/14/97		10.0	**739**	mg/kg dry	3
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**705**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*85.9*	*%*	

Refer to end of report for text of notes and definitions.

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Matthew Essig, Project Manager

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ERI	Project:	Texaco Greenwood	Sampled: 2/12/97
1921 Edmonds Drive SE	Project Number:	31008	Received: 2/13/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/14/97 14:07

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
SP-021297	B702166-01	Soil	21.9	%

NORTH CREEK ANALYTICAL
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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

ERI	Project:	Texaco Greenwood	Sampled: 2/12/97
1921 Edmonds Drive SE	Project Number:	31008	Received: 2/13/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/14/97 14:07

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270239	**Date Prepared: 2/14/97**					**Extraction Method: MeOH Extraction**				
Blank	**0270239-BLK1**									
Gasoline Range Hydrocarbons	2/14/97			**ND**	mg/kg dry	**5.00**				
Benzene	"			**ND**	"	**0.0500**				
Toluene	"			**ND**	"	**0.0500**				
Ethylbenzene	"			**ND**	"	**0.0500**				
Xylenes (total)	"			**ND**	"	**0.100**				
Surrogate: 4-BFB (FID)	"	*4.00*		*4.00*	"	*50.0-150*	*100*			
Surrogate: 4-BFB (PID)	"	*4.00*		*4.28*	"	*50.0-150*	*107*			
LCS	**0270239-BS1**									
Gasoline Range Hydrocarbons	2/14/97	25.0		21.2	mg/kg dry	75.0-125	84.8			
Surrogate: 4-BFB (FID)	"	*4.00*		*4.13*	"	*50.0-150*	*103*			
Duplicate	**0270239-DUP1**		**B702157-08**							
Gasoline Range Hydrocarbons	2/14/97		ND	ND	mg/kg dry			50.0		4
Surrogate: 4-BFB (FID)	"	*4.41*		*4.00*	"	*50.0-150*	*90.7*			
Matrix Spike	**0270239-MS1**		**B702143-03**							
Benzene	2/14/97	0.579	ND	0.500	mg/kg dry	60.0-140	**86.4**			
Toluene	"	0.579	ND	0.499	"	60.0-140	**86.2**			
Ethylbenzene	"	0.579	ND	0.505	"	60.0-140	**87.2**			
Xylenes (total)	"	1.74	ND	1.52	"	60.0-140	**87.4**			
Surrogate: 4-BFB (PID)	"	*4.63*		*4.68*	"	*50.0-150*	*101*			
Matrix Spike Dup	**0270239-MSD1**		**B702143-03**							
Benzene	2/14/97	0.579	ND	0.497	mg/kg dry	60.0-140	**85.8**	20.0	**0.697**	
Toluene	"	0.579	ND	0.491	"	60.0-140	**84.8**	20.0	**1.64**	
Ethylbenzene	"	0.579	ND	0.485	"	60.0-140	**83.8**	20.0	**3.98**	
Xylenes (total)	"	1.74	ND	1.46	"	60.0-140	**83.9**	20.0	**4.09**	
Surrogate: 4-BFB (PID)	"	*4.63*		*4.28*	"	*50.0-150*	*92.4*			

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

ERI	Project: Texaco Greenwood	Sampled: 2/12/97
1921 Edmonds Drive SE	Project Number: 31008	Received: 2/13/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 2/14/97 14:07

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270222	**Date Prepared: 2/13/97**					**Extraction Method: EPA 3550**				
Blank	**0270222-BLK1**									
Diesel Range Hydrocarbons	2/13/97			**ND**	mg/kg dry	**10.0**				
Heavy Oil Range Hydrocarbons	"			**ND**	"	**25.0**				
Surrogate: 2-FBP	"	*11.5*		*9.42*	"	*50.0-150*	*81.9*			
LCS	**0270222-BS1**									
Diesel Range Hydrocarbons	2/13/97	68.0		66.9	mg/kg dry	59.0-135	98.4			
Surrogate: 2-FBP	"	*11.5*		*9.66*	"	*50.0-150*	*84.0*			
Duplicate	**0270222-DUP2**		**B702143-30**							
Diesel Range Hydrocarbons	2/14/97		827	971	mg/kg dry			50.0	**16.0**	
Surrogate: Octacosane	"	*12.3*		*13.4*	"	*50.0-150*	*109*			*5*

Refer to end of report for text of notes and definitions.

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Matthew Essig, Project Manager

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ERI	Project: Texaco Greenwood	Sampled: 2/12/97
1921 Edmonds Drive SE	Project Number: 31008	Received: 2/13/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 2/14/97 14:07

Notes and Definitions

#	Note
1	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
2	This sample appears to contain volatile range organics.
3	The diesel range organics present are due to hydrocarbons eluting primarily in the gasoline range.
4	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
5	Due to problems encountered with the use of the primary surrogate the results of the back-up surrogate have been used to control the analysis.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Matthew Essig, Project Manager

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TEXACO CHAIN OF CUSTODY REPORT

Work Order #: B702166

CONSULTANT: ERI
PROJECT MANAGER: John Meyer
ADDRESS: 1921 Edmonds Dr SE
Renton, WA 98055
PHONE: 227-0280 FAX: 227-0225
PROJECT NAME: Texaco Greenwood
PROJECT NUMBER: 31008
SAMPLED BY: Meyer

TEXACO INFORMATION

TEXACO PROJECT MANAGER: T. Geijer
TEXACO FACILITY NUMBER: 63-232-0037
SITE ADDRESS: 8701 Greenwood Ave
Seattle, WA

TURNAROUND REQUEST in Business Days

Organic & Inorganic Analyses *: 10 | 5 | 3 | (1)
Air Analyses *: 3 | 1
OTHER Specify:

* Standard Turnaround for Organic & Inorganic Analyses is 10 Days
* Standard Turnaround for Air Analyses is 3 Days

State Hydrocarbon Methods (please circle): WA OR AK ID

NCA SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	Analysis Request: TPH-G/BTEX	TPH-D	TPH-D Extended	TPH-418.1	TPH-HCID	Tot/Diss Lead	MATRIX (W, S, O)	# OF CONTAINERS	COMMENTS & PRESERVATIVES USED
B702166-01	1. SP-021297	—	X		X				S	1	RUSH
	2.										
	3.										
	4.										
	5.										
	6.										
	7.										
	8.										
	9.										
	10.										

RELINQUISHED BY: [signature] DATE: 2/13/97
PRINT NAME: J. Meyer FIRM: ERI TIME: 9:47
RECEIVED BY: [signature] DATE: 2-13-97
PRINT NAME: Don Knapp FIRM: NATIONAL TIME: 947

RELINQUISHED BY: [signature] DATE: 2-13-97
PRINT NAME: Don Knapp FIRM: National TIME: 1043
RECEIVED BY: [signature] DATE: 2/13/97
PRINT NAME: DANA HEIN FIRM: NCAS TIME: 10:43

ADDITIONAL REMARKS:

90 W/O COST

PAGE 1 OF

TEXCOC.REV2,11/95

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 08:56

Summary Report*
(Please refer to the Analytical Report for a thorough review of the complete data set.)

Method	Analyte	Units	EXN1-5 Soil 2/18/97 B702244-01	EXN2-5 Soil 2/18/97 B702244-02	EXS1-5 Soil 2/18/97 B702244-03	EXS2-5 Soil 2/18/97 B702244-04	EXW-5 Soil 2/18/97 B702244-05
WTPH-G/8020	Gasoline Range Hydrocarbons	mg/kg dry	<5.00	<5.00	<5.00	**7.02**	<5.00
"	Benzene	"	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
"	Toluene	"	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
"	Ethylbenzene	"	<0.0500	<0.0500	<0.0500	**0.0865**	<0.0500
"	Xylenes (total)	"	<0.100	<0.100	<0.100	**0.330**	<0.100
WTPH-Dext	Diesel Range Hydrocarbons	mg/kg dry	<10.0	<10.0	<10.0	**15.5**	<10.0
"	Heavy Oil Range Hydrocarbons	"	<25.0	<25.0	<25.0	**66.7**	<25.0

North Creek Analytical, Inc.

Matthew Essig, Project Manager

**The Summary Report is a subset of the final Analytical Report and does not include substantial supportive information such as quality control data; this report accurately summarizes sample results for your convenience only.*

NORTH CREEK ANALYTICAL
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ERI	Project: Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number: Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 2/20/97 10:59

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EXN1-5	B702244-01	Soil	2/18/97
EXN2-5	B702244-02	Soil	2/18/97
EXS1-5	B702244-03	Soil	2/18/97
EXS2-5	B702244-04	Soil	2/18/97
EXW-5	B702244-05	Soil	2/18/97

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 10:59

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EXN1-5			**B702244-01**				**Soil**	
Gasoline Range Hydrocarbons	0270343	2/19/97	2/19/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*75.8*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*81.4*	"	
EXN2-5			**B702244-02**				**Soil**	
Gasoline Range Hydrocarbons	0270343	2/19/97	2/19/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*89.2*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*100*	"	
EXS1-5			**B702244-03**				**Soil**	
Gasoline Range Hydrocarbons	0270343	2/19/97	2/19/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*77.7*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*82.5*	"	
EXS2-5			**B702244-04**				**Soil**	
Gasoline Range Hydrocarbons	0270343	2/19/97	2/19/97		5.00	**7.02**	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	**0.0865**	"	
Xylenes (total)	"	"	"		0.100	**0.330**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*90.5*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*93.7*	"	
EXW-5			**B702244-05**				**Soil**	
Gasoline Range Hydrocarbons	0270343	2/19/97	2/19/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	

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**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

NORTH CREEK ANALYTICAL
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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 10:59

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EXW-5 (continued)			**B702244-05**				**Soil**	
Toluene	0270343	2/19/97	2/19/97		0.0500	ND	mg/kg dry	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*89.1*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*91.3*	"	

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 10:59

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EXN1-5			**B702244-01**				**Soil**	
Diesel Range Hydrocarbons	0270329	2/19/97	2/19/97		10.0	ND	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*75.3*	%	
EXN2-5			**B702244-02**				**Soil**	
Diesel Range Hydrocarbons	0270329	2/19/97	2/19/97		10.0	ND	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*72.8*	%	
EXS1-5			**B702244-03**				**Soil**	
Diesel Range Hydrocarbons	0270329	2/19/97	2/19/97		10.0	ND	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*66.4*	%	
EXS2-5			**B702244-04**				**Soil**	
Diesel Range Hydrocarbons	0270329	2/19/97	2/19/97		10.0	**15.5**	mg/kg dry	1
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**66.7**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*75.3*	%	
EXW-5			**B702244-05**				**Soil**	
Diesel Range Hydrocarbons	0270329	2/19/97	2/19/97		10.0	ND	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*73.5*	%	

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 10:59

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EXN1-5	B702244-01	Soil	88.6	%
EXN2-5	B702244-02	Soil	90.0	%
EXS1-5	B702244-03	Soil	82.6	%
EXS2-5	B702244-04	Soil	90.8	%
EXW-5	B702244-05	Soil	89.3	%

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 10:59

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270343	**Date Prepared: 2/19/97**					**Extraction Method: MeOH Extraction**				
Blank	**0270343-BLK1**									
Gasoline Range Hydrocarbons	2/19/97			**ND**	mg/kg dry	**5.00**				
Benzene	"			**ND**	"	**0.0500**				
Toluene	"			**ND**	"	**0.0500**				
Ethylbenzene	"			**ND**	"	**0.0500**				
Xylenes (total)	"			**ND**	"	**0.100**				
Surrogate: 4-BFB (FID)	"	*4.00*		*3.88*	"	*50.0-150*	*97.0*			
Surrogate: 4-BFB (PID)	"	*4.00*		*4.12*	"	*50.0-150*	*103*			
LCS	**0270343-BS1**									
Gasoline Range Hydrocarbons	2/19/97	25.0		18.9	mg/kg dry	75.0-125	75.6			
Surrogate: 4-BFB (FID)	"	*4.00*		*3.95*	"	*50.0-150*	*98.8*			
Duplicate	**0270343-DUP1**		**B702244-05**							
Gasoline Range Hydrocarbons	2/19/97		ND	ND	mg/kg dry			50.0		2
Surrogate: 4-BFB (FID)	"	*4.48*		*3.80*	"	*50.0-150*	*84.8*			
Matrix Spike	**0270343-MS1**		**B702244-01**							
Benzene	2/19/97	0.564	ND	0.471	mg/kg dry	60.0-140	**83.5**			
Toluene	"	0.564	ND	0.468	"	60.0-140	**83.0**			
Ethylbenzene	"	0.564	ND	0.473	"	60.0-140	**83.9**			
Xylenes (total)	"	1.69	ND	1.43	"	60.0-140	**84.6**			
Surrogate: 4-BFB (PID)	"	*4.51*		*4.35*	"	*50.0-150*	*96.5*			
Matrix Spike Dup	**0270343-MSD1**		**B702244-01**							
Benzene	2/19/97	0.564	ND	0.480	mg/kg dry	60.0-140	**85.1**	20.0	**1.90**	
Toluene	"	0.564	ND	0.476	"	60.0-140	**84.4**	20.0	**1.67**	
Ethylbenzene	"	0.564	ND	0.483	"	60.0-140	**85.6**	20.0	**2.01**	
Xylenes (total)	"	1.69	ND	1.44	"	60.0-140	**85.2**	20.0	**0.707**	
Surrogate: 4-BFB (PID)	"	*4.51*		*4.24*	"	*50.0-150*	*94.0*			

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Matthew Essig, Project Manager

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 10:59

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270329	**Date Prepared: 2/19/97**					**Extraction Method: EPA 3550**				
Blank	**0270329-BLK1**									
Diesel Range Hydrocarbons	2/19/97			**ND**	mg/kg dry	**10.0**				
Heavy Oil Range Hydrocarbons	"			**ND**	"	**25.0**				
Surrogate: 2-FBP	"	*11.5*		*7.79*	"	*50.0-150*	*67.7*			
LCS	**0270329-BS1**									
Diesel Range Hydrocarbons	2/19/97	68.0		63.1	mg/kg dry	59.0-135	92.8			
Surrogate: 2-FBP	"	*11.5*		*8.63*	"	*50.0-150*	*75.0*			
Duplicate	**0270329-DUP1**	**B702244-04**								
Diesel Range Hydrocarbons	2/19/97		15.5	14.4	mg/kg dry			50.0	7.36	2
Surrogate: 2-FBP	"	*12.6*		*8.88*	"	*50.0-150*	*70.5*			

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**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/18/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/19/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/20/97 10:59

Notes and Definitions

#	Note
1	The diesel range organics present are due to hydrocarbons eluting primarily in the heavy oil range.
2	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Matthew Essig, Project Manager

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TEXACO CHAIN OF CUSTODY REPORT

Work Order #: B702244

CONSULTANT: ERI
PROJECT MANAGER: John Major
ADDRESS: 1921 Edmonds Dr SE
Renton, WA 98055
PHONE: (206) 2270280 FAX: 2270225
PROJECT NAME: Texaco Groonwood
PROJECT NUMBER: 63-232-0037
SAMPLED BY: Major

TEXACO INFORMATION

TEXACO PROJECT MANAGER: T. Goisar
TEXACO FACILITY NUMBER: 63-232-0037
SITE ADDRESS: 8701 Greenwood Ave N
Seattle, WA

State Hydrocarbon Methods (please circle): WA OR AK ID

TURNAROUND REQUEST in Business Days

Organic & Inorganic Analyses *: 10 | 5 | 3 | (1)
Air Analyses *: 3 | 1
OTHER Specify:

* Standard Turnaround for Organic & Inorganic Analyses is 10 D
* Standard Turnaround for Air Analyses is 3 Days

NCA SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	Analysis Request: TPH-G/BTEX	TPH-D	TPH-D Extended	TPH-418.1	TPH-HCID	Tot/Diss Lead	MATRIX (W, S, O)	# OF CONTAINERS	COMMENTS & PRESERVATIVES USED
B702244-01	1. EXN1-5	2/18/97	X		X				3	1	Rush
-02	2. EXN2-5										
-03	3. EXS1-5										
-04	4. EXS2-5										
-05	5. EXW-5										
	6.										
	7.										
	8.										
	9.										
	10.										

RELINQUISHED BY:		DATE: 2/19/97	RECEIVED BY: RANylund		DATE: 2/19/97
PRINT NAME: John Major	FIRM: ERI	TIME:	PRINT NAME: RANylund	FIRM: NCS	TIME: 0917
RELINQUISHED BY: RANylund		DATE: 2/19/97	RECEIVED BY: RG Kelley		DATE: 02/19/97
PRINT NAME: RANylund	FIRM: NCS	TIME: 1115	PRINT NAME: RG Kelley	FIRM: NCA	TIME: 1115

ADDITIONAL REMARKS:

PAGE OF

TEXCOC.REV2, 11/95

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/25/97 14:20

Summary Report*
(Please refer to the Analytical Report for a thorough review of the complete data set.)

Method	Analyte	Units	EXN3-5 Soil 2/19/97 B702286-01	EXS3-5 Soil 2/19/97 B702286-02	EXE-5 Soil 2/19/97 B702286-03	SP-0217 Soil 2/19/97 B702286-04
WTPH-G/8020	Gasoline Range Hydrocarbons	mg/kg dry	83.8	19.0	147	351
"	Benzene	"	<0.0500	<0.0500	0.0752	0.243
"	Toluene	"	<0.0500	<0.0500	<0.0500	3.25
"	Ethylbenzene	"	0.589	0.0767	0.268	3.08
"	Xylenes (total)	"	0.359	0.291	0.393	21.2
WTPH-Dext	Diesel Range Hydrocarbons	mg/kg dry	14.1	174	459	<110
"	Heavy Oil Range Hydrocarbons	"	49.3	985	402	389
EPA 7420	Lead	mg/kg dry	-	-	-	21.5

North Creek Analytical, Inc.

Matthew Essig, Project Manager

**The Summary Report is a subset of the final Analytical Report and does not include substantial supportive information such as quality control data; this report accurately summarizes sample results for your convenience only.*

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ERI	Project: Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number: Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 2/25/97 14:19

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EXN3-5	B702286-01	Soil	2/19/97
EXS3-5	B702286-02	Soil	2/19/97
EXE-5	B702286-03	Soil	2/19/97
SP-0217	B702286-04	Soil	2/19/97

Matthew Essig, Project Manager

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/25/97 14:19

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EXN3-5			**B702286-01**				Soil	
Gasoline Range Hydrocarbons	0270427	2/21/97	2/22/97		5.00	**83.8**	mg/kg dry	1
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	**0.589**	"	
Xylenes (total)	"	"	"		0.100	**0.359**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*101*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*91.5*	"	
EXS3-5			**B702286-02**				Soil	
Gasoline Range Hydrocarbons	0270427	2/21/97	2/22/97		5.00	**19.0**	mg/kg dry	1
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	**0.0767**	"	
Xylenes (total)	"	"	"		0.100	**0.291**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*82.3*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*87.8*	"	
EXE-5			**B702286-03**				Soil	
Gasoline Range Hydrocarbons	0270427	2/21/97	2/21/97		5.00	**147**	mg/kg dry	1
Benzene	"	"	"		0.0500	**0.0752**	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	**0.268**	"	
Xylenes (total)	"	"	"		0.100	**0.393**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*91.3*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*81.7*	"	
SP-0217			**B702286-04**				Soil	
Gasoline Range Hydrocarbons	0270427	2/21/97	2/21/97		10.0	**351**	mg/kg dry	1
Benzene	"	"	"		0.100	**0.243**	"	
Toluene	"	"	"		0.100	**3.25**	"	
Ethylbenzene	"	"	"		0.100	**3.08**	"	
Xylenes (total)	"	"	"		0.200	**21.2**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*134*	%	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*102*	"	

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/25/97 14:19

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EXN3-5			**B702286-01**				**Soil**	**2,3**
Diesel Range Hydrocarbons	0270387	2/21/97	2/21/97		10.0	**14.1**	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**49.3**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*84.5*	%	
EXS3-5			**B702286-02**				**Soil**	**2**
Diesel Range Hydrocarbons	0270387	2/21/97	2/21/97		110	**174**	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		275	**985**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*88.8*	%	
EXE-5			**B702286-03**				**Soil**	**2,3**
Diesel Range Hydrocarbons	0270387	2/21/97	2/21/97		10.0	**459**	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**402**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*116*	%	
SP-0217			**B702286-04**				**Soil**	**2,3**
Diesel Range Hydrocarbons	0270387	2/21/97	2/22/97		110	ND	mg/kg dry	
Heavy Oil Range Hydrocarbons	"	"	"		275	**389**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*89.0*	%	

North Creek Analytical, Inc.

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/25/97 14:19

Metals by EPA 6010/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
SP-0217			B702286-04				Soil	
Lead	0270380	2/21/97	2/22/97	EPA 7420	10.0	21.5	mg/kg dry	

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ERI	Project:	Texaco #63-232-0037	Sampled:	2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received:	2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported:	2/25/97 14:19

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EXN3-5	B702286-01	Soil	80.7	%
EXS3-5	B702286-02	Soil	85.4	%
EXE-5	B702286-03	Soil	80.5	%
SP-0217	B702286-04	Soil	90.5	%

North Creek Analytical, Inc.

Matthew Essig, Project Manager

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PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

ERI	Project:	Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/25/97 14:19

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270427	**Date Prepared: 2/21/97**					**Extraction Method: MeOH Extraction**				
Blank	**0270427-BLK1**									
Gasoline Range Hydrocarbons	2/21/97			**ND**	mg/kg dry	**5.00**				
Benzene	"			**ND**	"	**0.0500**				
Toluene	"			**ND**	"	**0.0500**				
Ethylbenzene	"			**ND**	"	**0.0500**				
Xylenes (total)	"			**ND**	"	**0.100**				
Surrogate: 4-BFB (FID)	"	*4.00*		*3.93*	"	*50.0-150*	*98.3*			
Surrogate: 4-BFB (PID)	"	*4.00*		*4.08*	"	*50.0-150*	*102*			
LCS	**0270427-BS1**									
Gasoline Range Hydrocarbons	2/21/97	25.0		22.2	mg/kg dry	75.0-125	88.8			
Surrogate: 4-BFB (FID)	"	*4.00*		*4.28*	"	*50.0-150*	*107*			
Duplicate	**0270427-DUP1**		**B702286-01**							
Gasoline Range Hydrocarbons	2/22/97		83.8	111	mg/kg dry			50.0	27.9	
Surrogate: 4-BFB (FID)	"	*4.96*		*4.75*	"	*50.0-150*	*95.8*			
Matrix Spike	**0270427-MS1**		**B702286-03**							
Benzene	2/21/97	0.621	0.0752	0.523	mg/kg dry	60.0-140	**72.1**			
Toluene	"	0.621	ND	0.543	"	60.0-140	**87.4**			
Ethylbenzene	"	0.621	0.268	0.696	"	60.0-140	**68.9**			
Xylenes (total)	"	1.86	0.393	1.81	"	60.0-140	**76.2**			
Surrogate: 4-BFB (PID)	"	*4.97*		*4.32*	"	*50.0-150*	*86.9*			
Matrix Spike Dup	**0270427-MSD1**		**B702286-03**							
Benzene	2/21/97	0.621	0.0752	0.524	mg/kg dry	60.0-140	**72.3**	20.0	**0.277**	
Toluene	"	0.621	ND	0.544	"	60.0-140	**87.6**	20.0	**0.229**	
Ethylbenzene	"	0.621	0.268	0.684	"	60.0-140	**67.0**	20.0	**2.80**	
Xylenes (total)	"	1.86	0.393	1.79	"	60.0-140	**75.1**	20.0	**1.45**	
Surrogate: 4-BFB (PID)	"	*4.97*		*4.28*	"	*50.0-150*	*86.1*			

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**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/25/97 14:19

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270387	**Date Prepared: 2/21/97**					**Extraction Method: EPA 3550**				
Blank	**0270387-BLK1**									
Diesel Range Hydrocarbons	2/21/97			**ND**	mg/kg dry	**10.0**				
Heavy Oil Range Hydrocarbons	"			**ND**	"	**25.0**				
Surrogate: 2-FBP	"	*11.5*		*8.44*	"	*50.0-150*	*73.4*			
LCS	**0270387-BS1**									
Diesel Range Hydrocarbons	2/21/97	68.0		63.9	mg/kg dry	59.0-135	94.0			
Surrogate: 2-FBP	"	*11.5*		*9.66*	"	*50.0-150*	*84.0*			
Duplicate	**0270387-DUP1**	**B702300-01**								
Diesel Range Hydrocarbons	2/21/97		ND	ND	mg/kg dry			50.0		4
Surrogate: 2-FBP	"	*12.6*		*9.69*	"	*50.0-150*	*76.9*			

North Creek Analytical, Inc.

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ERI	Project: Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number: Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 2/25/97 14:19

Metals by EPA 6010/7000 Series Methods/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0270380	**Date Prepared: 2/21/97**					**Extraction Method: EPA 3050**				
Blank	**0270380-BLK1**									
Lead	2/22/97			ND	mg/kg dry	10.0				
LCS	**0270380-BS1**									
Lead	2/22/97	25.0		19.8	mg/kg dry	75.0-125	79.2			
Duplicate	**0270380-DUP1**		**B702243-41**							
Lead	2/22/97		64.1	64.1	mg/kg dry			20.0	0	
Matrix Spike	**0270380-MS1**		**B702243-41**							
Lead	2/22/97	34.9	64.1	107	mg/kg dry	75.0-125	123			
Matrix Spike Dup	**0270380-MSD1**		**B702243-41**							
Lead	2/22/97	34.9	64.1	100	mg/kg dry	75.0-125	103	20.0	17.7	

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**Refer to end of report for text of notes and definitions.*

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ERI	Project:	Texaco #63-232-0037	Sampled: 2/19/97
1921 Edmonds Drive SE	Project Number:	Not Provided	Received: 2/20/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 2/25/97 14:19

Notes and Definitions

#	Note
1	The chromatogram for this sample does not resemble a typical gasoline pattern. Please refer to the sample chromatogram.
2	The hydrocarbons present are a complex mixture of diesel range and heavy oil range organics.
3	This sample appears to contain volatile range organics.
4	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Matthew Essig, Project Manager

NORTH CREEK ANALYTICAL

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TEXACO CHAIN OF CUSTODY REPORT

Work Order #: B702286

CONSULTANT: ERI

PROJECT MANAGER: John Major

ADDRESS: 1921 Edmonds Dr SE
Renton WA 98055

PHONE: 227-6280 FAX: 2270225

PROJECT NAME: Texaco Greenwood

PROJECT NUMBER: 63-232-0037

SAMPLED BY: Major

TEXACO INFORMATION

TEXACO PROJECT MANAGER: T. Geijer

TEXACO FACILITY NUMBER: 63 232 0037

SITE ADDRESS: 9701 Greenwood Ave
Seattle

State Hydrocarbon Methods (please circle): WA OR AK ID

TURNAROUND REQUEST in Business Days

Organic & Inorganic Analyses *: 10 | 5 | 3 | 1

Air Analyses *: 3 | 1

OTHER Specify:

* Standard Turnaround for Organic & Inorganic Analyses is ys

* Standard Turnaround for Air Analyses is 3 Days

NCA SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	Analysis Request: TPH-G/BTEX	TPH-D	TPH-D Extended	TPH-418.1	TPH-HCID	Tot/Diss Lead				MATRIX (W, S, O)	# OF CONTAINERS	COMMENTS & PRESERVATIVES USED
B702286-01	1. EXN3-5	2/19/97	X		X							S	1	
-02	2. EXS3-5	"	X		X									
-03	3. EXE-5	"	X		X									
-04	4. SP-0217	2/17/97	X		X			X						
	5.													
	6.													
	7.													
	8.													
	9.													
	10.													

RELINQUISHED BY: [signature] DATE: 2/20/97

PRINT NAME: John Major FIRM: ERI TIME: 15:45

RECEIVED BY: Lisa Hurley DATE: 2-20-97

PRINT NAME: Lisa Hurley FIRM: NCA TIME: 15:45

RELINQUISHED BY: DATE:

PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:

PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

PAGE 1 OF 1

TEXCOC.REV2,11/95

OMS LABORATORIES, INC.
911 Western Ave, Ste 412 Seattle, WA 98104-1031
Phone: (206) 622-8353 FAX: (206) 622-4623

Lab Reference: 469-23
Date Received: March 10, 1997
Date Completed: March 11, 1997

March 11, 1997

JOHN MEYER
ERI
1921 EDMONDS DR SE
RENTON WA 98055

CLIENT REF: Greenwood Avenue, PO #31001

REQUEST: Analysis for benzene and other petroleum related hydrocarbons.

SAMPLES: Charcoal tubes A1 and A2

ANALYSIS: NIOSH Method 1501 using Gas Chromatography.

RESULTS:

Samples	A1	A2
Liters of air submitted	18.3	13.5
Benzene		
- milligrams	0.001	0.002
- milligrams per cubic meter	0.05	0.15
Gasoline		
- milligrams	0.070	0.040
- milligrams per cubic meter	3.8	3.0
Diesel		
- milligrams	0.021	0.019
- milligrams per cubic meter	1.2	1.4
Total Hydrocarbons		
- milligrams	0.091	0.059
- milligrams per cubic meter	5.0	4.5

Robert M. Orheim
Director of Laboratories

OMS LABORATORIES, INC.

(206) 622-8353

911 WESTERN AVENUE, SUITE 412 • SEATTLE, WA 98104-1031

SAMPLE CUSTODY FORM NO. # 97-09-06

CONTACT PERSON: John Major
COMPANY (if any): ERI
STREET ADDRESS: 1921 Edmonds Pl SE
CITY: Renton STATE: WA ZIP CODE: 98055
PHONE NO: (206) 227-0280 / 918-0254 (pager)
FAX NO: (206) 227-0225

Bill to: Same
(if different)
Purchase Order #: 3/001
Job #/Reference: (City) Greenwood Ave
If Prepaid, Cash Invoice #: C - _____ Amount: $_____
Charge Rate: ☐ Normal Turnaround
☑ RUSH (prior approval required) same day

SAMPLES/QUANTITY	REQUEST	COMMENTS/INSTRUCTIONS
soils _____ sludge _____ waste water _____ oils _____ air cylinder _____ air bags _____ 25 mm filters _____ 37 mm filters _____ food products _____ drinking water _____ sampling tubes, specify Carbon/2 liquids _____ solids _____ describe or specify _____	☐ GC ☐ GC-MS ☐ FTIR ☐ AAS/GFS ☐ XRF ☐ XRD ☐ asbestos ☐ Grade D air ☐ formaldehyde ☐ lead ☒ OTHER, specify: benzene & other hydrocarbons	

Unless otherwise specified, samples shall be discarded 30 days after report has been mailed. A pre-paid storage fee is required for all retained samples upon request.

SUBMITTED BY: _____ PRINT NAME: John Major DATE: 3/10/97

RELINQUISHED BY	RECEIVED BY	DATE	TIME	REMARKS
	adeagan	3/10/97	5:20 pm	

LABORATORY REFERENCE NO.: 1469-23 DATE RECEIVED: 3/10/97
DATE ANALYSIS COMPLETED: 3/11/97 BY: BMO
DATE REPORT MAILED: Mar 11/97 BY: RWA
DATE INVOICE MAILED: Mar 11/97 BY: RWA
DATE FILED: _____ BY: _____

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ERI	Project: Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number: 31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 3/11/97 15:03

Summary Report*
(Please refer to the Analytical Report for a thorough review of the complete data set.)

Method	Analyte	Units	EX2-E-3 Soil 3/10/97 B703142-01	EX-N-4 Soil 3/10/97 B703142-02	EX-WN-4 Soil 3/10/97 B703142-03	EX-EN-4 Soil 3/10/97 B703142-04	EX-BN-5 Soil 3/10/97 B703142-05
WTPH-G/8020	Gasoline Range Hydrocarbons	mg/kg dry	<5.00	120	130	<5.00	170
"	Benzene	"	<0.0500	<0.200	0.218	<0.0500	<0.100
"	Toluene	"	<0.0500	<0.200	0.124	<0.0500	0.125
"	Ethylbenzene	"	<0.0500	0.212	0.197	<0.0500	0.456
"	Xylenes (total)	"	<0.100	0.679	0.686	<0.100	0.863
WTPH-Dext	Diesel Range Hydrocarbons	mg/kg dry	16.0	38.4	28.2	<10.0	51.9
"	Heavy Oil Range Hydrocarbons	"	75.5	132	136	44.2	165

Method	Analyte	Units	EX-BS-6 Soil 3/10/97 B703142-06	EX-WS-5 Soil 3/10/97 B703142-07	EX-S-5 Soil 3/10/97 B703142-08	EX-ES-5 Soil 3/10/97 B703142-09
WTPH-G/8020	Gasoline Range Hydrocarbons	mg/kg dry	10.6	<5.00	<5.00	<5.00
"	Benzene	"	<0.0500	<0.0500	<0.0500	<0.0500
"	Toluene	"	0.113	<0.0500	0.130	<0.0500
"	Ethylbenzene	"	0.0600	<0.0500	<0.0500	<0.0500
"	Xylenes (total)	"	0.357	<0.100	0.268	<0.100
WTPH-Dext	Diesel Range Hydrocarbons	mg/kg dry	374	520	354	1610
"	Heavy Oil Range Hydrocarbons	"	2270	788	712	799

North Creek Analytical, Inc.

Matthew Essig, Project Manager

**The Summary Report is a subset of the final Analytical Report and does not include substantial supportive information such as quality control data; this report accurately summarizes sample results for your convenience only.*

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EX2-E-3	B703142-01	Soil	3/10/97
EX-N-4	B703142-02	Soil	3/10/97
EX-WN-4	B703142-03	Soil	3/10/97
EX-EN-4	B703142-04	Soil	3/10/97
EX-BN-5	B703142-05	Soil	3/10/97
EX-BS-6	B703142-06	Soil	3/10/97
EX-WS-5	B703142-07	Soil	3/10/97
EX-S-5	B703142-08	Soil	3/10/97
EX-ES-5	B703142-09	Soil	3/10/97

Matthew Essig, Project Manager

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX2-E-3			**B703142-01**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*85.3*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*80.4*	"	
EX-N-4			**B703142-02**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		20.0	**120**	mg/kg dry	
Benzene	"	"	"		0.200	ND	"	
Toluene	"	"	"		0.200	ND	"	
Ethylbenzene	"	"	"		0.200	**0.212**	"	
Xylenes (total)	"	"	"		0.400	**0.679**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*89.6*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*81.2*	"	
EX-WN-4			**B703142-03**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		10.0	**130**	mg/kg dry	
Benzene	"	"	"		0.100	**0.218**	"	
Toluene	"	"	"		0.100	**0.124**	"	
Ethylbenzene	"	"	"		0.100	**0.197**	"	
Xylenes (total)	"	"	"		0.200	**0.686**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*79.9*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*71.0*	"	
EX-EN-4			**B703142-04**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*70.9*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*69.6*	"	
EX-BN-5			**B703142-05**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		10.0	**170**	mg/kg dry	
Benzene	"	"	"		0.100	ND	"	

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-BN-5 (continued)			**B703142-05**				**Soil**	
Toluene	0370207	3/10/97	3/10/97		0.100	**0.125**	mg/kg dry	
Ethylbenzene	"	"	"		0.100	**0.456**	"	
Xylenes (total)	"	"	"		0.200	**0.863**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*58.9*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*53.4*	"	
EX-BS-6			**B703142-06**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		5.00	**10.6**	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	**0.113**	"	
Ethylbenzene	"	"	"		0.0500	**0.0600**	"	
Xylenes (total)	"	"	"		0.100	**0.357**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*55.3*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*55.4*	"	
EX-WS-5			**B703142-07**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*76.9*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*75.7*	"	
EX-S-5			**B703142-08**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	**0.130**	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	**0.268**	"	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*10.0*	*%*	*1*
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*10.1*	"	*1*
EX-ES-5			**B703142-09**				**Soil**	
Gasoline Range Hydrocarbons	0370207	3/10/97	3/10/97		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	

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**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-ES-5 (continued)			**B703142-09**				**Soil**	
Xylenes (total)	0370207	3/10/97	3/10/97		0.100	ND	mg/kg dry	
Surrogate: 4-BFB (FID)	"	"	"	*50.0-150*		*37.2*	%	*1*
Surrogate: 4-BFB (PID)	"	"	"	*50.0-150*		*39.0*	"	*1*

**Refer to end of report for text of notes and definitions.*

North Creek Analytical, Inc.

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX2-E-3			**B703142-01**				**Soil**	
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		10.0	**16.0**	mg/kg dry	2
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**75.5**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*83.1*	%	
EX-N-4			**B703142-02**				**Soil**	3
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		10.0	**38.4**	mg/kg dry	2
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**132**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*80.6*	%	
EX-WN-4			**B703142-03**				**Soil**	3
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		10.0	**28.2**	mg/kg dry	2
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**136**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*95.6*	%	
EX-EN-4			**B703142-04**				**Soil**	
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		10.0	ND	mg/kg dry	2
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**44.2**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*81.3*	%	
EX-BN-5			**B703142-05**				**Soil**	3
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		10.0	**51.9**	mg/kg dry	2
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**165**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*84.6*	%	
EX-BS-6			**B703142-06**				**Soil**	3
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		20.0	**374**	mg/kg dry	2
Heavy Oil Range Hydrocarbons	"	"	"		50.0	**2270**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*82.2*	%	
EX-WS-5			**B703142-07**				**Soil**	4
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		10.0	**520**	mg/kg dry	5
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**788**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*88.9*	%	
EX-S-5			**B703142-08**				**Soil**	4
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		10.0	**354**	mg/kg dry	5
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**712**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*83.5*	%	

North Creek Analytical, Inc.

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-ES-5			**B703142-09**				**Soil**	**4**
Diesel Range Hydrocarbons	0370196	3/10/97	3/11/97		50.0	**1610**	mg/kg dry	5
Heavy Oil Range Hydrocarbons	"	"	"		25.0	**799**	"	
Surrogate: 2-FBP	"	"	"	*50.0-150*		*89.8*	%	

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EX2-E-3	B703142-01	Soil	87.9	%
EX-N-4	B703142-02	Soil	79.8	%
EX-WN-4	B703142-03	Soil	71.7	%
EX-EN-4	B703142-04	Soil	85.2	%
EX-BN-5	B703142-05	Soil	76.8	%
EX-BS-6	B703142-06	Soil	36.3	%
EX-WS-5	B703142-07	Soil	14.9	%
EX-S-5	B703142-08	Soil	16.7	%
EX-ES-5	B703142-09	Soil	19.8	%

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8020A/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0370207	**Date Prepared: 3/10/97**					**Extraction Method: MeOH Extraction**				
Blank	**0370207-BLK1**									
Gasoline Range Hydrocarbons	3/10/97			**ND**	mg/kg dry	**5.00**				
Benzene	"			**ND**	"	**0.0500**				
Toluene	"			**ND**	"	**0.0500**				
Ethylbenzene	"			**ND**	"	**0.0500**				
Xylenes (total)	"			**ND**	"	**0.100**				
Surrogate: 4-BFB (FID)	"	*4.00*		*3.75*	"	*50.0-150*	*93.8*			
Surrogate: 4-BFB (PID)	"	*4.00*		*3.75*	"	*50.0-150*	*93.8*			
LCS	**0370207-BS1**									
Gasoline Range Hydrocarbons	3/10/97	25.0		23.3	mg/kg dry	75.0-125	93.2			
Surrogate: 4-BFB (FID)	"	*4.00*		*3.78*	"	*50.0-150*	*94.5*			
Duplicate	**0370207-DUP1**	**B703125-01**								
Gasoline Range Hydrocarbons	3/10/97		ND	ND	mg/kg dry			50.0		6
Surrogate: 4-BFB (FID)	"	*4.36*		*3.84*	"	*50.0-150*	*88.1*			
Duplicate	**0370207-DUP2**	**B703142-01**								
Gasoline Range Hydrocarbons	3/11/97		ND	ND	mg/kg dry			50.0		6
Surrogate: 4-BFB (FID)	"	*4.55*		*3.52*	"	*50.0-150*	*77.4*			
Matrix Spike	**0370207-MS1**	**B703125-06**								
Benzene	3/11/97	0.588	ND	0.470	mg/kg dry	60.0-140	**79.9**			
Toluene	"	0.588	ND	0.477	"	60.0-140	**81.1**			
Ethylbenzene	"	0.588	ND	0.477	"	60.0-140	**81.1**			
Xylenes (total)	"	1.76	ND	1.44	"	60.0-140	**81.8**			
Surrogate: 4-BFB (PID)	"	*4.70*		*3.88*	"	*50.0-150*	*82.6*			
Matrix Spike Dup	**0370207-MSD1**	**B703125-06**								
Benzene	3/11/97	0.588	ND	0.496	mg/kg dry	60.0-140	**84.4**	20.0	**5.48**	
Toluene	"	0.588	ND	0.500	"	60.0-140	**85.0**	20.0	**4.70**	
Ethylbenzene	"	0.588	ND	0.501	"	60.0-140	**85.2**	20.0	**4.93**	
Xylenes (total)	"	1.76	ND	1.51	"	60.0-140	**85.8**	20.0	**4.77**	
Surrogate: 4-BFB (PID)	"	*4.70*		*3.94*	"	*50.0-150*	*83.8*			

North Creek Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

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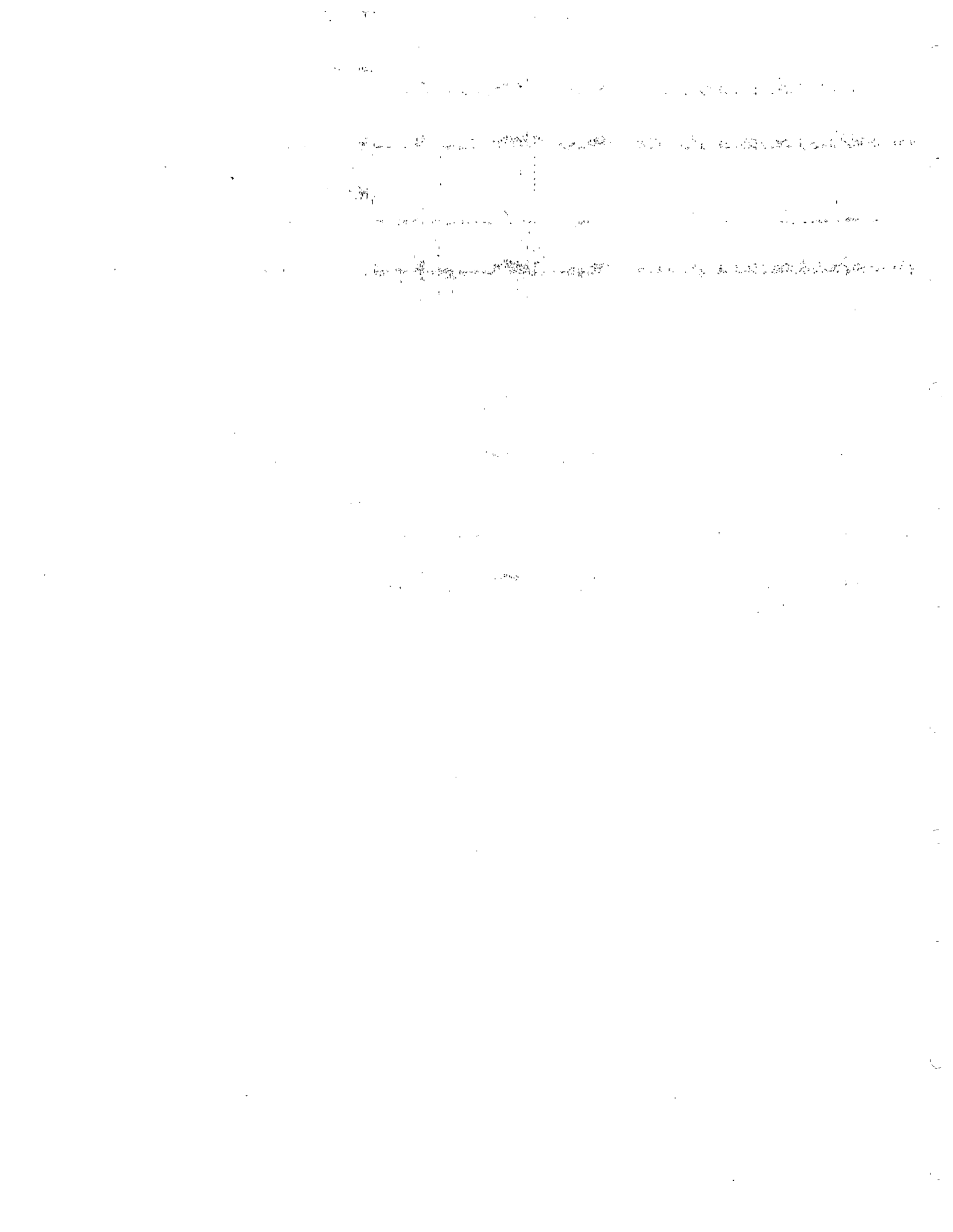
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 3/11/97 15:22

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0370196	**Date Prepared: 3/10/97**					**Extraction Method: EPA 3550**				
Blank	**0370196-BLK1**									
Diesel Range Hydrocarbons	3/10/97			**ND**	mg/kg dry	**10.0**				
Heavy Oil Range Hydrocarbons	"			**ND**	"	**25.0**				
Surrogate: 2-FBP	"	*11.5*		*10.1*	"	*50.0-150*	*87.8*			
LCS	**0370196-BS1**									
Diesel Range Hydrocarbons	3/10/97	68.0		68.9	mg/kg dry	59.0-135	101			
Surrogate: 2-FBP	"	*11.5*		*10.5*	"	*50.0-150*	*91.3*			
Duplicate	**0370196-DUP1**	**B702159-06**								
Diesel Range Hydrocarbons	3/11/97		382	243	mg/kg dry			50.0	**44.5**	
Surrogate: Octacosane	"	*13.0*		*8.56*	"	*50.0-150*	*65.8*			*7*
Duplicate	**0370196-DUP2**	**B703142-05**								
Diesel Range Hydrocarbons	3/11/97		51.9	87.9	mg/kg dry			50.0	**51.5**	6
Surrogate: 2-FBP	"	*14.9*		*13.9*	"	*50.0-150*	*93.3*			

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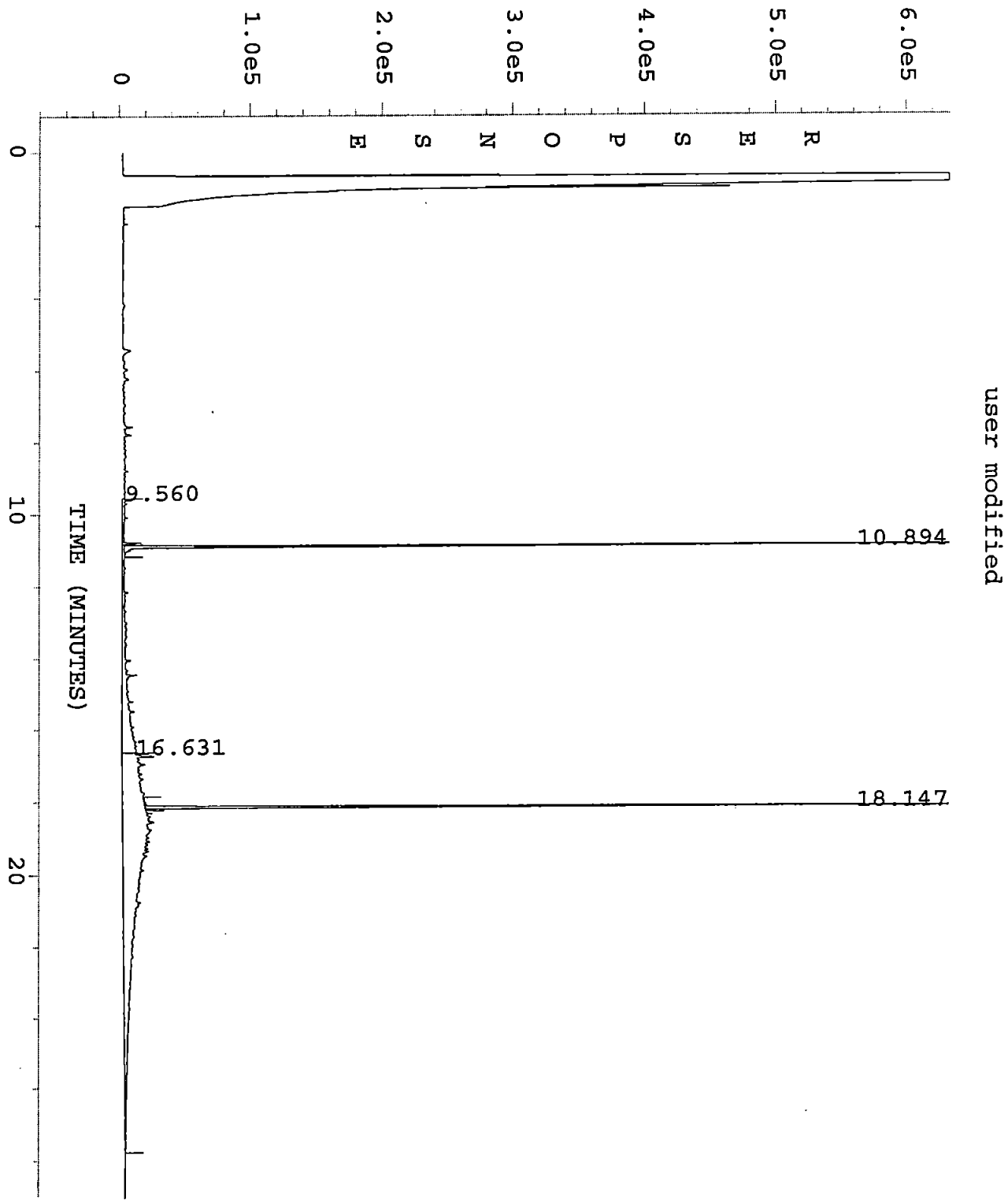
ERI	Project: Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number: 31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 3/11/97 15:22

Notes and Definitions

#	Note
1	The Surrogate Recovery for this Sample is Outside of Established Control Limits due to a Matrix Interference.
2	The diesel range organics present are due to hydrocarbons eluting primarily in the heavy oil range.
3	This sample appears to contain volatile range organics.
4	The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
5	The hydrocarbon concentration result in this sample is partially due to one or more individual peaks eluting in the diesel/heavy oil range. Quantitation by EPA method 8270 is recommended.
6	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
7	Due to problems encountered with the use of the primary surrogate the results of the back-up surrogate have been used to control the analysis.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Matthew Essig, Project Manager



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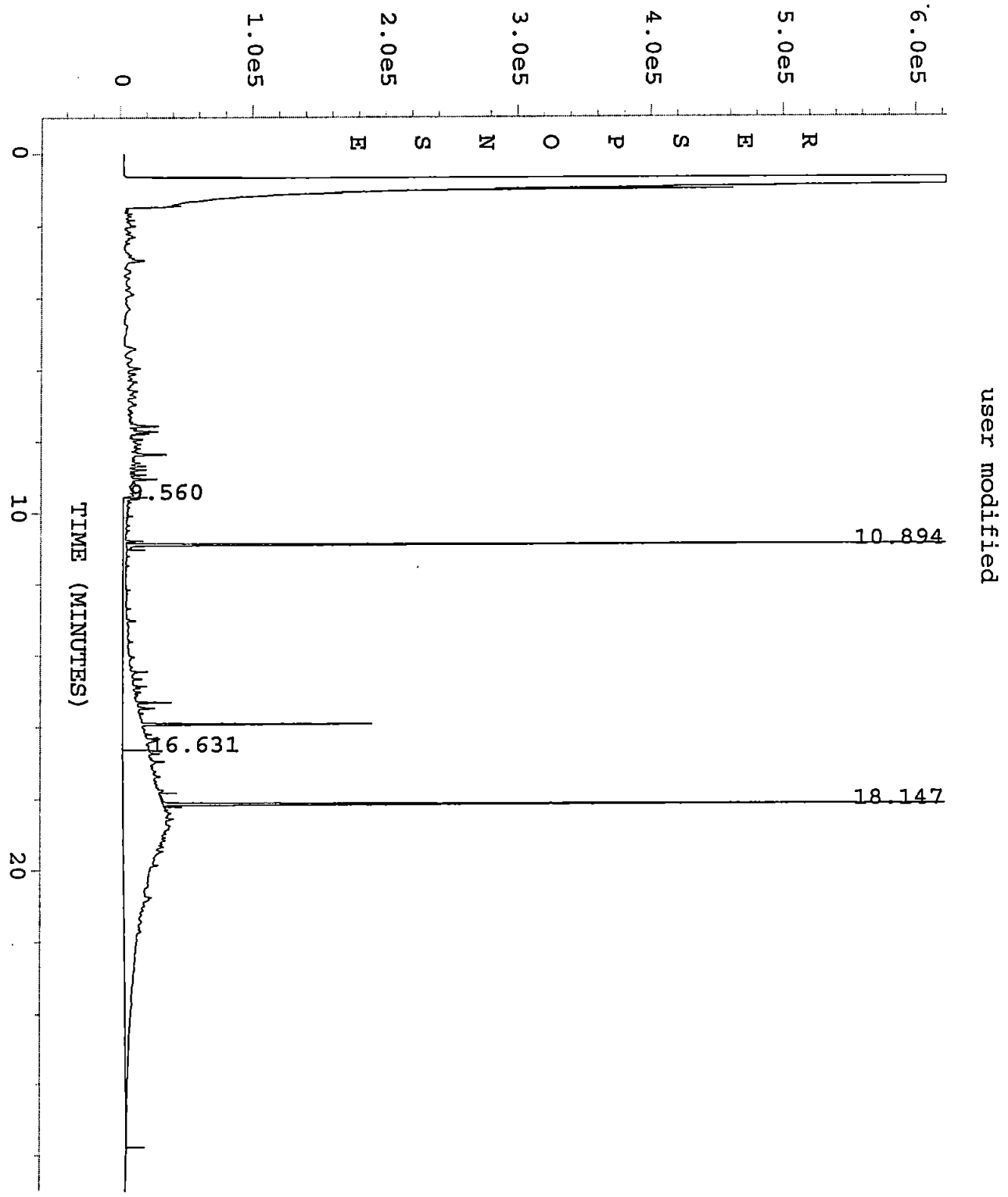
Operator	: TF	Page Number	: 1
Instrument	: PHIL	Vial Number	: 19
Sample Name	: 703142-01	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 15
Acquired on	: 11 Mar 97 04:15 AM	Instrument Method	: TPHE.MTH
Report Created on	: 11 Mar 97 07:31 AM	Analysis Method	: TPHE.MTH



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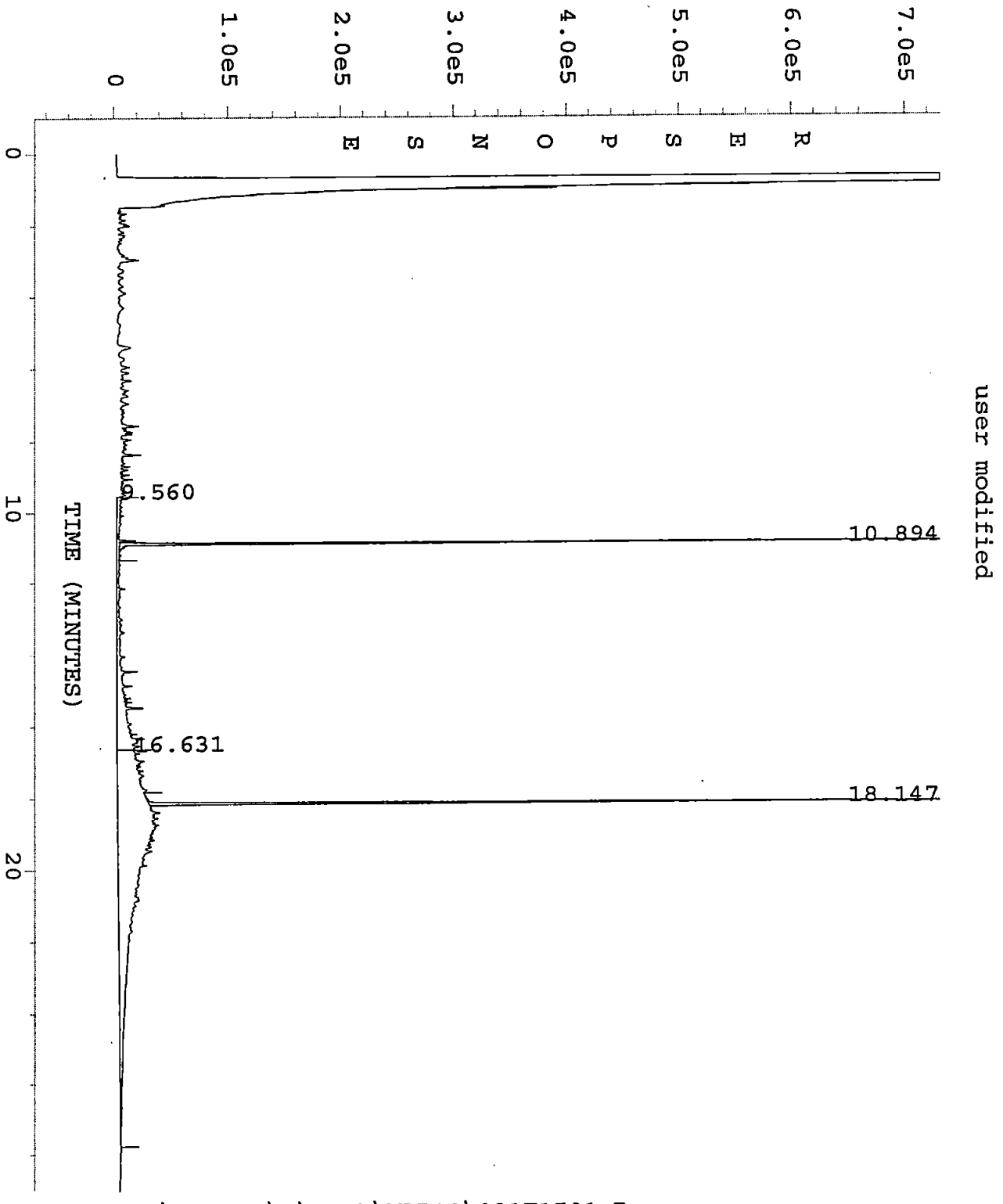
Instrument : PHIL
Sample Name : 703142-02
Run Time Bar Code:
Acquired on : 11 Mar 97 04:54 AM
Report Created on: 11 Mar 97 07:32 AM

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 15
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



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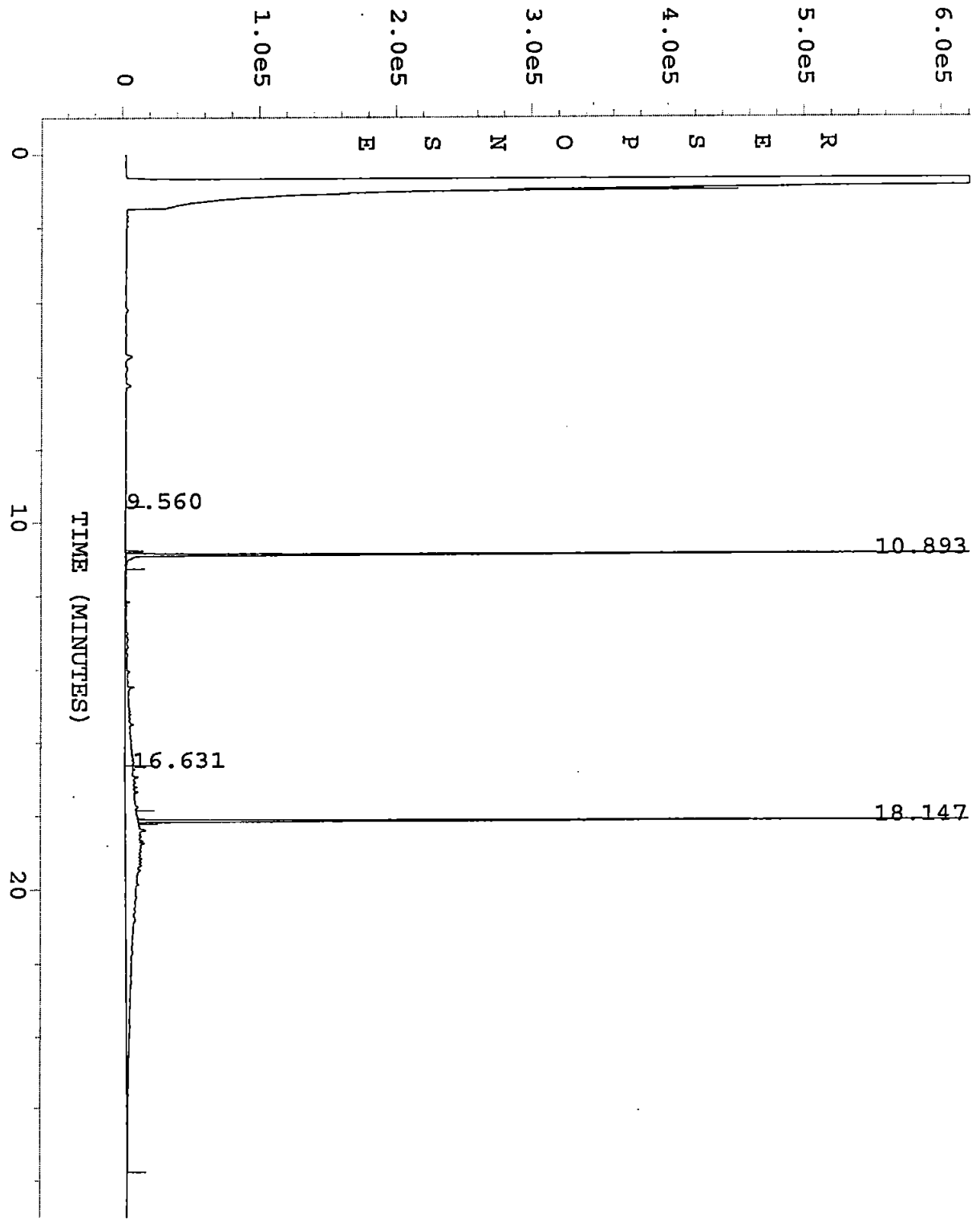
Report Created on:	11 Mar 97 07:33 AM	Analysis Method	: TPHE.MTH



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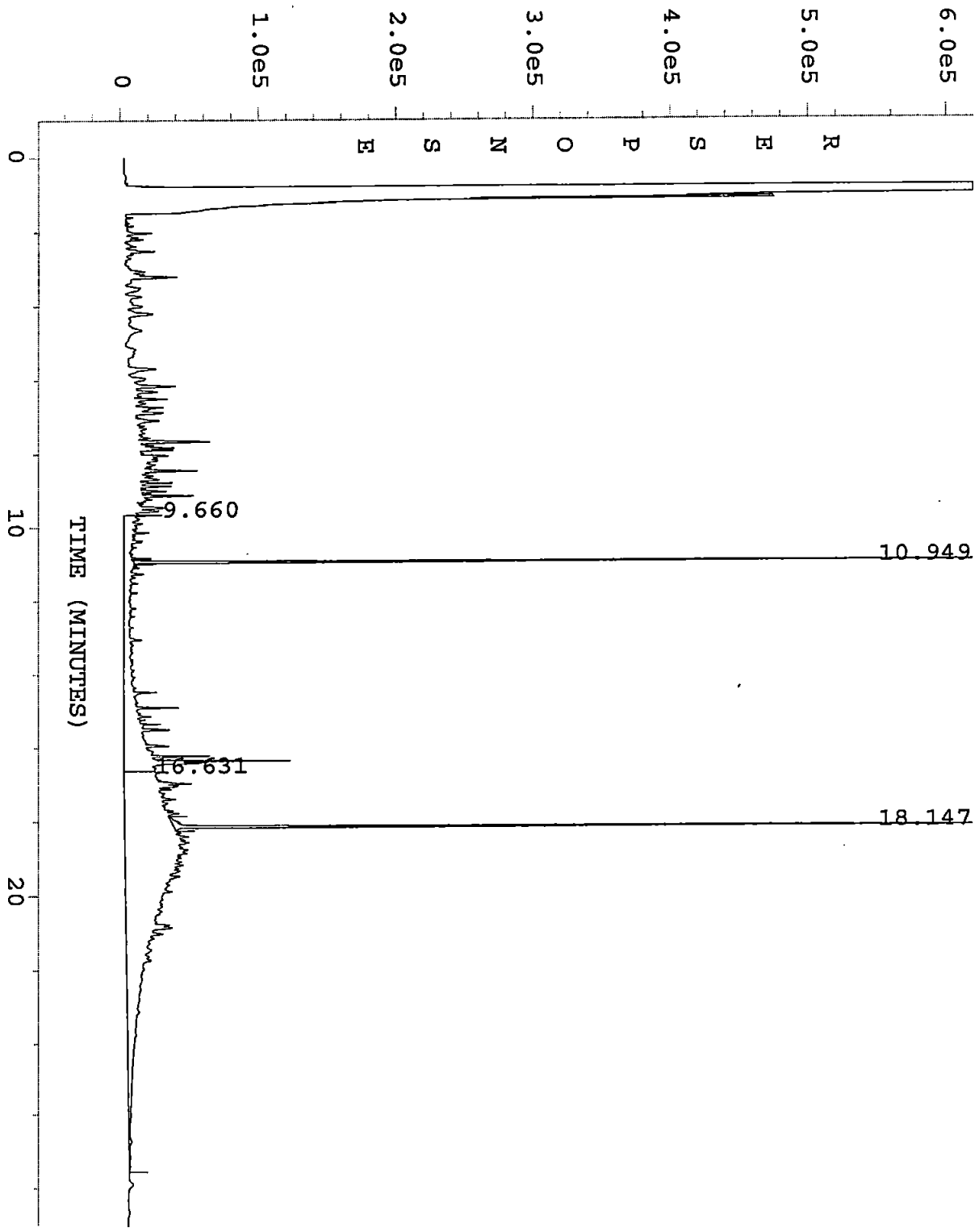
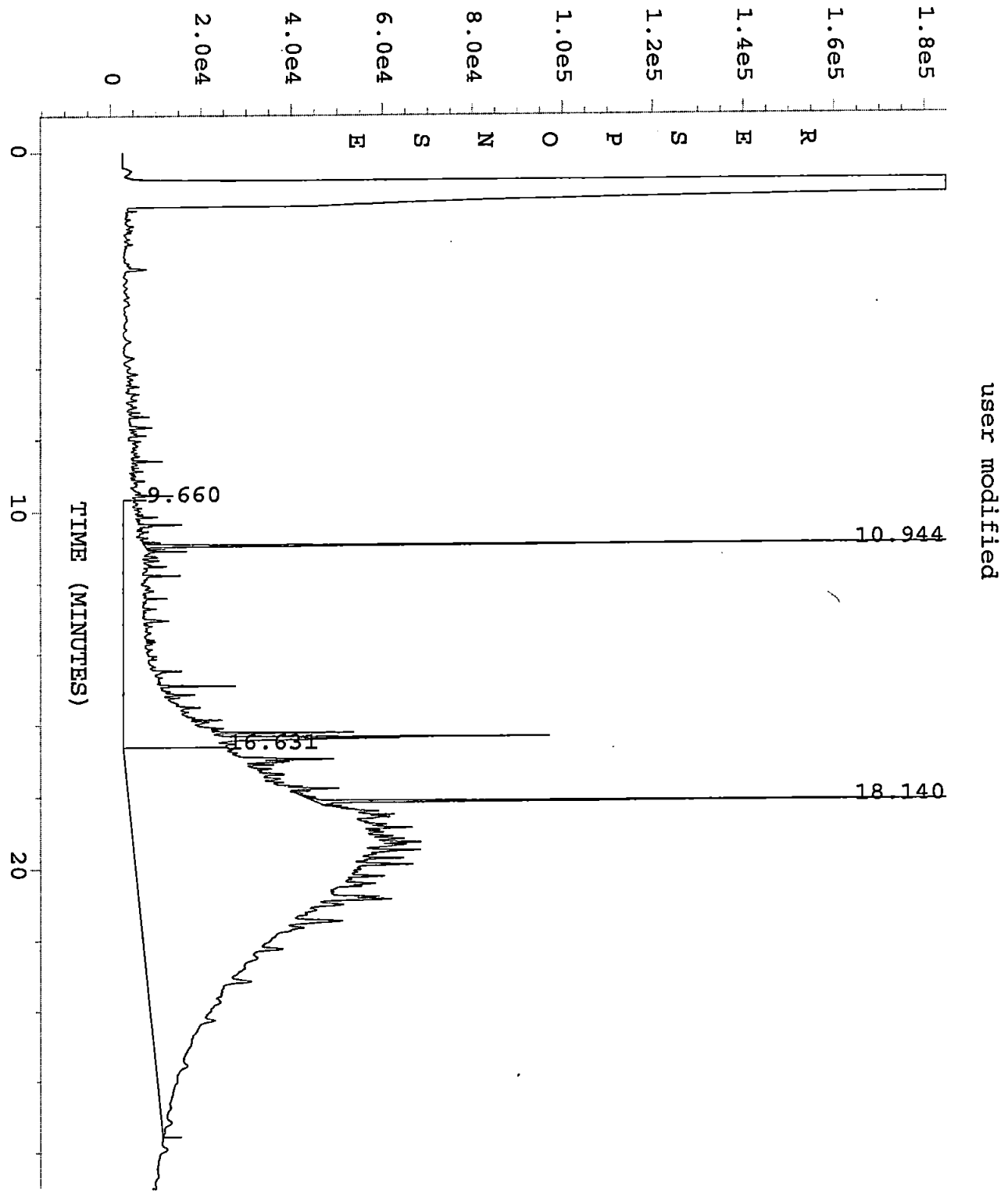
Instrument	: PHIL	Vial Number	: 22
Sample Name	: 703142-04	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 15
Acquired on	: 11 Mar 97 06:10 AM	Instrument Method	: TPHE.MTH
Report Created on	: 11 Mar 97 07:33 AM	Analysis Method	: TPHE.MTH



Data File Name : C:\HPCHEM\1\DATA\MAR10\069R1801.D
Operator : TF
Instrument : PHIL
Sample Name : 703142-05 S
Run Time Bar Code:
Acquired on : 11 Mar 97 11:18 AM
Report Created on: 11 Mar 97 11:24 AM

Page Number : 1
Vial Number : 69
Injection Number : 1
Sequence Line : 18
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



Data File Name	: C:\HPCHEM\1\DATA\MAR10\071R1901.D		
Operator	: TF	Page Number	: 1
Instrument	: PHIL	Vial Number	: 71
Sample Name	: 703142-06 S 2X	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 19
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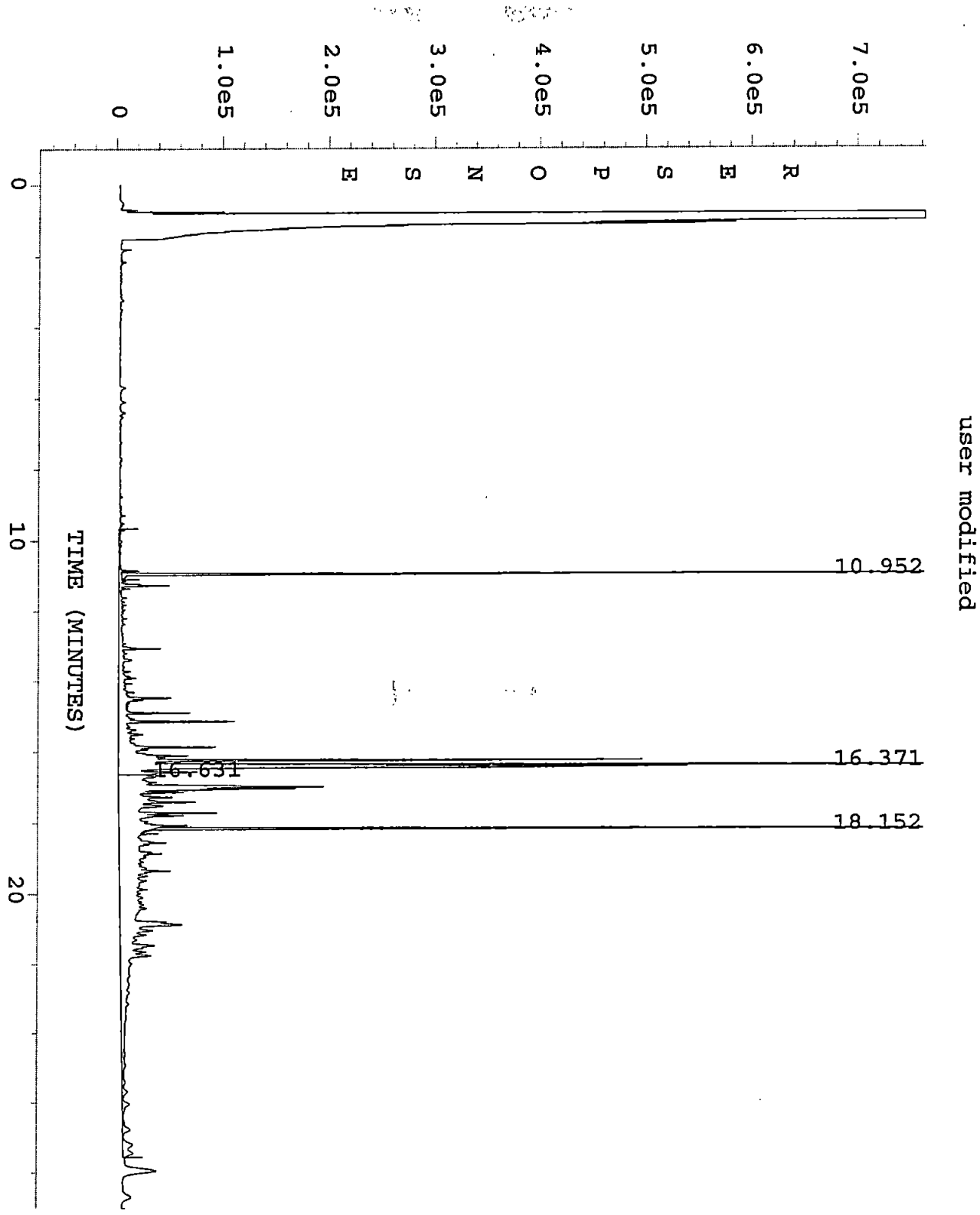
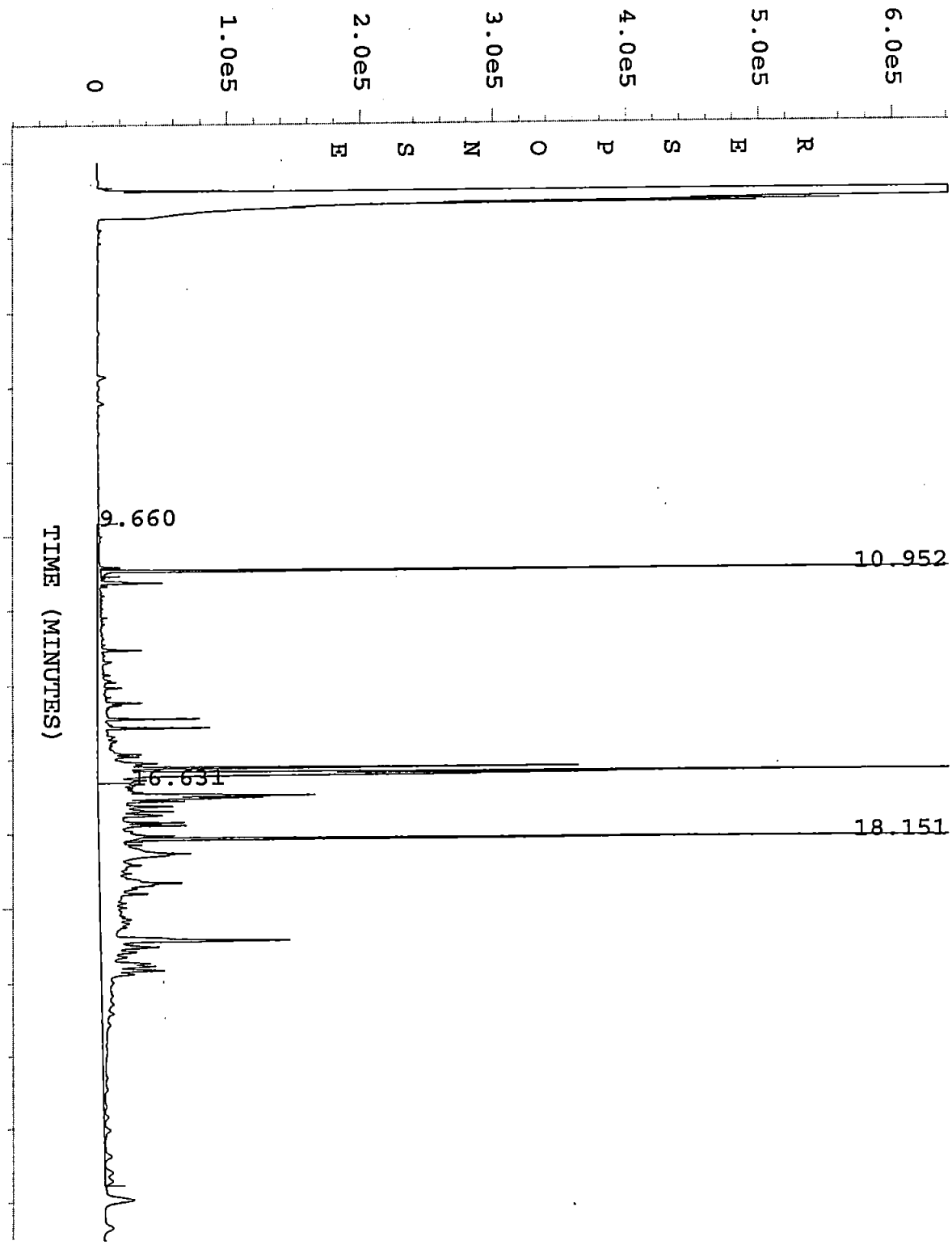
Report Created on	: 11 Mar 97 12:10 PM	Analysis Method	: TPHE.MTH

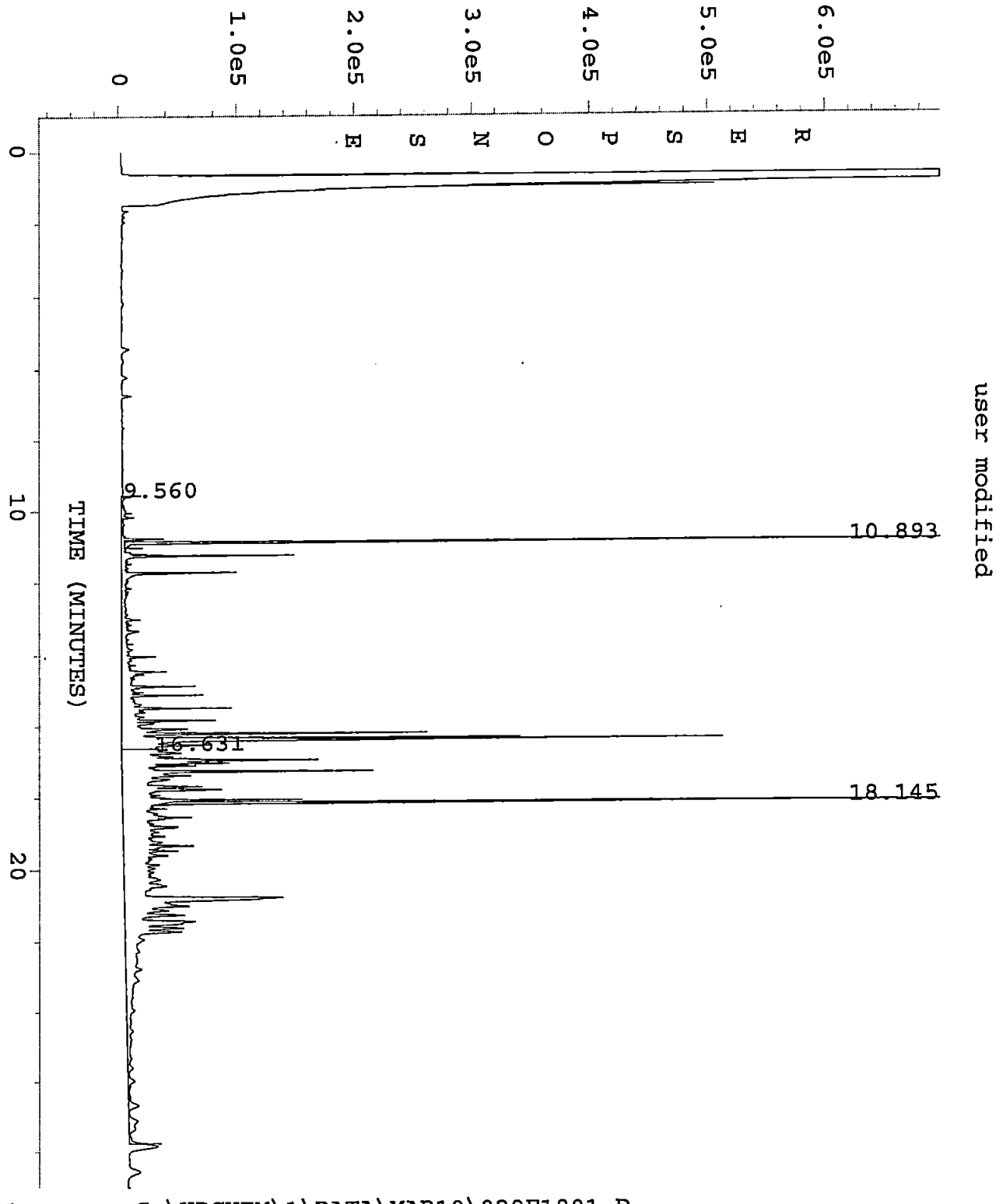


Data File Name : C:\HPCHEM\1\DATA\MAR10\026R1301.D
Operator : TF
Instrument : PHIL
Sample Name : 703142-07
Run Time Bar Code:
Acquired on : 11 Mar 97 01:42 AM
Report Created on: 11 Mar 97 07:28 AM

Page Number : 1
Vial Number : 26
Injection Number : 1
Sequence Line : 13
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH



Data File Name	: C:\HPCHEM\1\DATA\MAR10\027R1301.D		
Operator	: TF	Page Number	: 1
Instrument	: PHIL	Vial Number	: 27
Sample Name	: 703142-08	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 13
Acquired on	: 11 Mar 97 02:20 AM	Instrument Method	: TPHE.MTH
Report Created on	: 11 Mar 97 07:29 AM	Analysis Method	: TPHE.MTH



Data File Name : C:\HPCHEM\1\DATA\MAR10\029F1801.D
Operator : TF
Instrument : PHIL
Sample Name : 703142-09 S
Run Time Bar Code:
Acquired on : 11 Mar 97 09:27 AM
Report Created on: 11 Mar 97 10:47 AM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 18
Instrument Method: TPHE.MTH
Analysis Method : TPHE.MTH

NORTH CREEK ANALYTICAL

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

TEXACO CHAIN OF CUSTODY REPORT

Work Order #: B703142

CONSULTANT: ERI
PROJECT MANAGER: Meyer
ADDRESS: 1921 Edmonds Dr SE
Renton, WA 98055
PHONE: (206) 227-0280 FAX: 227-0225
PROJECT NAME: Texaco Greenwood
PROJECT NUMBER: 31001
SAMPLED BY: Meyer

TEXACO INFORMATION

TEXACO PROJECT MANAGER: T Geiger
TEXACO FACILITY NUMBER: 63-232-0037
SITE ADDRESS: 8701 Greenwood Ave
Seattle, WA

State Hydrocarbon Methods (please circle): WA OR AK ID

TURNAROUND REQUEST in Business Days

Organic & Inorganic Analyses *: 10 | 5 | 3 | (1)
Air Analyses *: 3 | 1
OTHER Specify:

* Standard Turnaround for Organic & Inorganic Analyses is 10 Dr
* Standard Turnaround for Air Analyses is 3 Days

NCA SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	TPH-G/BTEX	TPH-D	TPH-D Extended	TPH-418.1	TPH-HCID	Tot/Diss Lead				MATRIX (W, S, O)	# OF CONTAINERS	COMMENTS & PRESERVATIVES USED
B703142-01	1. EX2-E-3	3/10/97	X		X							S	1	RUSH
-02	2. EX-N-4		X		X									
-03	3. EX-WN-4		X		X									
-04	4. EX-EN-4		X		X									
-05	5. EX-BN-5		X		X									
-06	6. EX-BS-6		X		X									
-07	7. EX-WS-5		X		X									
-08	8. EX-S-5		X		X									
-09	9. EX-ES-5		X		X									
	10.													

RELINQUISHED BY: John Meyer DATE: 3/10/97
PRINT NAME: John Meyer FIRM: ERI TIME: 4:49

RECEIVED BY: Lisa Hurley DATE: 3/10/97
PRINT NAME: Lisa Hurley FIRM: NCA TIME: 16:49

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS: Fax results to MEYER ASAP
& Geiger

PAGE OF

TEXCOC.REV2,11/95

6°C No Seal

Columbia Analytical Services, Inc.

March 26, 1997

Service Request No: K9701669

John Meyer
ERI
1921 Edmonds Dr. SE
Renton, WA 98055

Re: Texaco Greenwood Project

Dear John:

Enclosed are the results of the rush sample(s) submitted to our laboratory on March 15,1997. For your reference, these analyses have been assigned our service request number K9701669.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 281.

Respectfully submitted,

Columbia Analytical Services, Inc.

Elizabeth Schneider
Project Chemist

ES/cl

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 360/577-7222 • Fax 360/636-1068

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Acronyms

ASTM	American Society for Testing and Materials
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DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
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GC	Gas Chromatography
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J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
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NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: ERI
Project: Texaco Greenwood
Sample Matrix: Water

Service Request: K9701669
Date Collected: 3/14/97
Date Received: 3/14/97
Date Extracted: 3/17/97
Date Analyzed: 3/17/97

Total Oil and Grease
EPA Methods 413.1
Units: mg/L (ppm)

Sample Name	Lab Code	MRL	Result
EXWATER	K9701669-001	1	287
Method Blank	K9701669-0MB	1	ND

Approved By: _____ Date: 3/26/97

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	ERI	**Service Request:**	K9701669
Project:	Texaco Greenwood	**Date Collected:**	3/14/97
Sample Matrix:	Water	**Date Received:**	3/14/97
		Date Extracted:	NA
		Date Analyzed:	3/17/97

BTE
EPA Methods 5030A/8020
Units: µg/L (ppb)

Analyte:	**Benzene**	**Toluene**	**Ethylbenzene**
Method Reporting Limit:	0.5	1	1

Sample Name	**Lab Code**			
EXWATER	K9701669-001(a)	37	340	290
Method Blank	K9701669-MB	ND	ND	ND

(a) Result is from the analysis of a diluted sample, performed on 3/17/97. Dilution factor: 100

Approved By: _____ Date: 3/26/97

5A/102194

APPENDIX A

LABORATORY QC RESULTS

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: ERI
Project: Texaco Greenwood
LCS Matrix: Water

Service Request: K9701669
Date Collected: NA
Date Received: NA
Date Extracted: 3/17/97
Date Analyzed: 3/17/97

Laboratory Control Sample Summary
Total Oil and Grease
EPA Methods 413.1
Units: mg/L (ppm)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Oil	10.2	10.7	105	77-111

Approved By: _____ Date: 3/26/97

LCS/102194

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: ERI
Project: Texaco Greenwood
Sample Matrix: Water

Service Request: K9701669
Date Collected: 3/14/97
Date Received: 3/14/97
Date Extracted: NA
Date Analyzed: 3/17/97

Surrogate Recovery Summary
BTE
EPA Methods 5030A/8020

Sample Name	Lab Code	Percent Recovery 4-BFB (PID - BTEX)	Percent Recovery 4-BFB (FID - GAS)
EXWATER	K9701669-001	92	NA
Method Blank	K9701669-MB	97	NA
Lab Control Sample	K9701669-LCS	102	NA
CAS Acceptance Limits:		86-113	81-120

Approved By: _____ Date: 3/24/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: ERI
Project: Texaco Greenwood
Sample Matrix: Water

Service Request: K9701669
Date Collected: 3/14/97
Date Received: 3/14/97
Date Extracted: NA
Date Analyzed: 3/19/97

Duplicate Summary
BTE
EPA Methods 5030A/8020
Units: µg/L (ppb)

Sample Name: Batch QC
Lab Code: B9700118-001DUP(a)

Analyte	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	CAS RPD Acceptance Limit
Benzene	0.5	5.5	5.2	5.35	4	30
Toluene	1	4600	4000	4300	9	30
Ethylbenzene	1	1500	1300	1400	9	30

(a) Result is from the analysis of a diluted sample, performed on 3/19/97.

Approved By: _____ Date: 3/26/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: ERI
Project: Texaco Greenwood
Sample Matrix: Water

Service Request: K9701669
Date Collected: 3/14/97
Date Received: 3/14/97
Date Extracted: NA
Date Analyzed: 3/18/97

Matrix Spike Summary
BTE
EPA Methods 5030A/8020
Units: µg/L (ppb)

Sample Name: Batch QC
Lab Code: B9700118-002MS

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	0.5	100	ND	99	99	79-119
Toluene	1	100	ND	99	99	82-114
Ethylbenzene	1	100	ND	101	101	83-114

Approved By: _____ Date: 3/26/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: ERI
Project: Texaco Greenwood
LCS Matrix: Water

Service Request: K9701669
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 3/17/97

Laboratory Control Sample Summary
BTE
EPA Methods 5030A/8020
Units: µg/L (ppb)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	100	90	90	69-118
Toluene	100	102	102	66-124
Ethylbenzene	100	109	109	63-127

Approved By: _____ Date: 3/26/97

LCS/102194

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

Columbia Analytical Services inc.

18912 North Creek Pkwy, Suite 118 • Bothell, WA 98011 • (206) 486-6983 • FAX (206) 486-7695

DATE 3/14/97 PAGE 1 OF 1

PROJECT NAME Texaco Groundwater

PROJECT Texaco

COMPANY/ADDRESS GRI

1921 Edmonds Dr NE

Renton, WA PHONE 227-0225

SAMPLERS SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	ANALYSIS REQUEST: PETROLEUM HCS: TPH - HCID State:	TPH - G State:	BTEX	TPH - D State:	OIL	TPH - 418.1 State:	TPH - Other	ORGANIC: Halogenated or Aromatic Volatiles 601/8010	602/8020	Volatile Organics GC/MS 624-8240	Base/Neu/Acid Organics GC/MS 625/8270	Pesticides/PCBS 8080	PCB ONLY	PAH 8310	8100 GC	HPCL	TCLP Metals	Semi VOA	VOA	Pest/Herb	Metals Total	DISS	List Below	Cyanide	ORGANIC METALS/INORGANICS: pH, Cond Cl, SO_4, PO_4 F, Br NO_2 NO_3 (Circle)	NH_3 - N, COD, Total-P TKN, TOC, TOX (Circle)	BTEX	REMARKS
EXWATER	3/14	—	16069-1	GW	1																									X	

RELINQUISHED BY:

Signature

John Meyer

Printed Name

ERI

Firm

3/14/97

Date/Time

RECEIVED BY:

Signature

Lee Wolf

Printed Name

CAS

Firm

3/14/97 3:02pm

Date/Time

TURNAROUND REQUIREMENTS

✓ 24 hr ____ 48 hr. ____ 5 day

____ Standard (10-15 working days)

____ Provide Verbal Preliminary Results

____ Provide FAX preliminary Results

Requested Report Date ____

REPORT REQUIREMENTS

____ I. Routine Report

____ II. Report (includes DUP.MAS. MSD, as required, may be charged as samples)

____ III. Data Validation Report (includes All Raw Data)

____ IV. CLP Deliverable Report

INVOICE INFORMATION:

P.O.# ____

Bill To ____

SAMPLE RECEIPT:

Shipping VIA: ____

Shipping to: ____

Condition: ____

Lab No: K9701669

RELINQUISHED BY:

Signature

Printed Name

Firm

Date/Time

RECEIVED BY:

Signature

Printed Name

Firm

Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:

FAX results to Meyer @ 227-0225 on Monday 3/17/97

2100

Columbia Analytical Services, Inc.

April 10, 1997

Service Request No: K9701617

John Meyer
ERI
1921 Edmonds Dr. SE
Renton, WA 98055

Re: Texaco Greenwood/31001

Dear John:

Enclosed are the results of the rush sample(s) submitted to our laboratory on March 13, 1997. For your reference, these analyses have been assigned our service request number K9701617.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions. My extension is 281.

Respectfully submitted,

Columbia Analytical Services, Inc.

Elizabeth Schneider
Project Chemist

ES/td

1317 South 13th Avenue • P.O. Box 479 • Kelso, Washington 98626 • Telephone 360/577-7222 • Fax 360/636-1068

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
J	Estimated concentration. The value is less than the method reporting limit, but greater than the method detection limit.
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected at or above the MRL
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Texaco Environmental Services	**Service Request:**	K9701617
Project:	Texaco Greenwood/31001	**Date Collected:**	3/13/97
Sample Matrix:	Soil	**Date Received:**	3/13/97
		Date Extracted:	3/13/97
		Date Analyzed:	3/13/97

BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G
Units: mg/Kg (ppm)
Dry Weight Basis

Analyte:	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH as Gasoline
Method Reporting Limit:	0.05	0.1	0.1	0.1	5
Sample Name	**Lab Code**				
EX3-E-3	K9701617-001	ND	ND	ND	ND	7(a)
EX4-E-3	K9701617-002	ND	ND	ND	ND	6(a)
Method Blank	K9701617-SB	ND	ND	ND	ND	ND

(a) Quantified as gas. The sample contained components that eluted in the gas range, but the chromatogram did not match the typical gas fingerprint.

Approved By: _____ Date: 4/10/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Texaco Environmental Services
Project: Texaco Greenwood/31001
Sample Matrix: Soil

Service Request: K9701617
Date Collected: 3/13/97
Date Received: 3/13/97
Date Extracted: 3/13/97
Date Analyzed: 3/13/97

Surrogate Recovery Summary
BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G

Sample Name	Lab Code	Percent Recovery 1,4-BFB (PID - BTEX)	Percent Recovery 1,4-BFB (FID - GAS)
EX3-E-3	K9701617-001	86	90
EX3-E-3	K9701617-001MS	89	89
EX4-E-3	K9701617-002	86	91
EX4-E-3	K9701917-002DUP	83	87
Method Blank	K9701617-SB	91	95
Lab Control Sample	K9701617-LCS	97	97
Lab Control Sample	K9701617-GLCS	96	100
CAS Acceptance Limits:		59-116	59-115

Approved By: _____ Date: 4/10/97

SUR2/111594
01617PHC.EC2 - GBTXsSUR 4/10/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Texaco Environmental Services
Project: Texaco Greenwood/31001
Sample Matrix: Soil

Service Request: K9701617
Date Collected: 3/13/97
Date Received: 3/13/97
Date Extracted: 3/13/97
Date Analyzed: 3/13/97

Duplicate Summary
BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: EX4-E-3
Lab Code: K9701617-002DUP

Analyte	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	CAS RPD Acceptance Limit
Benzene	0.05	ND	ND	-	-	40
Toluene	0.1	ND	ND	-	-	40
Ethylbenzene	0.1	ND	ND	-	-	40
Total Xylenes	0.1	ND	ND	-	-	40
Gasoline	5	6	ND	NC	-	40

Approved By: _____ Date: 4/10/97

DUP1SRPD/102194
01617PHC.EC2 - GBTXsDUP 4/10/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Texaco Environmental Services
Project: Texaco Greenwood/31001
Sample Matrix: Soil

Service Request: K9701617
Date Collected: 3/13/97
Date Received: 3/13/97
Date Extracted: 3/13/97
Date Analyzed: 3/13/97

Matrix Spike Summary
BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G
Units: mg/Kg (ppm)
Dry Weight Basis

Sample Name: EX3-E-3
Lab Code: K9701617-001MS

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	0.05	0.87	ND	0.7	80	47-111
Toluene	0.1	0.87	ND	0.7	83	46-119
Ethylbenzene	0.1	0.87	ND	0.7	80	48-116
Gasoline	5	NS	7	NS	-	59-135

NS Not spiked with Gasoline.

Approved By: _____ Date: 4/10/97

MS1S/102194
01617PHC.EC2 - GBTXsMS 4/10/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Texaco Environmental Services	**Service Request:**	K9701617
Project:	Texaco Greenwood/31001	**Date Collected:**	NA
LCS Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	3/13/97
		Date Analyzed:	3/13/97

Laboratory Control Sample Summary
BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G
Units: mg/Kg (ppm)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	0.76	0.81	107	61-119
Toluene	4.9	4.8	99	59-118
Ethylbenzene	1.0	0.9	91	51-132
Gasoline	48.5	62.4	129	82-155

Approved By: _____ Date: 4/10/97

LCS/102194

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Texaco Environmental Services	**Service Request:**	K9701617
Project:	Texaco Greenwood/31001	**Date Collected:**	3/13/97
Sample Matrix:	Soil	**Date Received:**	3/13/97
		Date Extracted:	3/13/97
		Date Analyzed:	3/13/97

Total Petroleum Hydrocarbons as Diesel and Oil
Washington DOE Method WTPH-D
Units: mg/Kg (ppm)
Dry Weight Basis

Analyte:		**Diesel**	**Oil***
Method Reporting Limit:		25	100
Sample Name	**Lab Code**		
EX3-E-3	K9701617-001	68(a)	252
EX4-E-3	K9701617-002	85(a)	348
Method Blank	K9701617-SB	ND	ND

* Quantified using 30-weight motor oil as a standard.
(a) This result is primarily due to the beginning of oil, which elutes in the diesel region.

Approved By: _____ Date: 4/10/97

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Texaco Environmental Services
Project: Texaco Greenwood/31001
Sample Matrix: Soil

Service Request: K9701617
Date Collected: 3/13/97
Date Received: 3/13/97
Date Extracted: 3/13/97
Date Analyzed: 3/13/97

Surrogate Recovery Summary
Total Petroleum Hydrocarbons as Diesel and Oil
Washington DOE Method WTPH-D

Sample Name	Lab Code	Percent Recovery p-Terphenyl
EX3-E-3	K9701617-001	98
EX4-E-3	K9701617-002	112
Method Blank	K9701617-SB	81

CAS Acceptance Limits: 81-112

Approved By: _____ Date: 4/10/97

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992
East 11115 Montgomery, Suite B, Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

K9701617

CHAIN OF CUSTODY REPORT

Work Order #

REPORT TO:	INVOICE TO:
ATTENTION: John Meyer	ATTENTION: T. Geijer
ADDRESS: 1921 Edmonds Ave NE, Renton, WA 98055	ADDRESS: 3400 188th St SW, Lynnwood WA 98037
PHONE: 227-0280 FAX: 227-0225	P.O. NUMBER: NCA QUOTE #:
PROJECT NAME: Texaco Greenwood	
PROJECT NUMBER: 31001	
SAMPLED BY: Meyer	

Page: 918-0254

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: 10 (Standard) | 7 | 5 | 4 | 3 | 2 | 1 | Same Day

Fuels & Hydrocarbon Analyses: 5 (Standard) | 3-4 | 2 | 1 | Same Day

OTHER Specify:

** Turnaround Requests less than standard may incur Rush Charges.*

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	Analysis Request: TPH-G/BTEX	TPH-Diesel	MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1.	EX3-E-3	3/14/97	9701617-1	X	X			
2.	EX4-E-3	"	9701617-2	X	X			
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

RELINQUISHED BY (Signature): John Meyer	DATE: 3/14/97	RECEIVED BY (Signature): Eric Choiniere	DATE: 3/17/97
PRINT NAME: John Meyer FIRM: EA TIME:		PRINT NAME: ERIC CHOINIERE FIRM: CAS	TIME: 10:20a
RELINQUISHED BY (Signature):	DATE:	RECEIVED BY (Signature):	DATE:
PRINT NAME: FIRM:	TIME:	PRINT NAME: FIRM:	TIME:

ADDITIONAL REMARKS: Faxed data to Teresa Geijer as well 3/14/97 ETC

PAGE OF

00010

COC Rev 8, 1/96

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EX-BN-5	B703142-05	Soil	3/10/97
EX-BS-6	B703142-06	Soil	3/10/97

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

Volatile Petroleum Hydrocarbons by WDOE Interim TPH Policy Method
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-BN-5			**B703142-05**				**Soil**	
C5-C6 Aliphatics	0370814	3/28/97	4/1/97		5.00	ND	mg/kg dry	
C6-C8 Aliphatics	"	"	"		5.00	ND	"	
C8-C10 Aliphatics	"	"	"		5.00	**10.6**	"	
C10-C12 Aliphatics	"	"	"		5.00	**18.9**	"	
C8-C10 Aromatics	"	"	"		5.00	**5.34**	"	
C10-C12 Aromatics	"	"	"		5.00	**14.6**	"	
C12-C13 Aromatics	"	"	"		5.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	*80.0-120*		*81.8*	*%*	
Surrogate: 4-BFB (PID)	"	"	"	*80.0-120*		*105*	"	

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Matthew Essig, Project Manager

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

BTEX, MTBE and Naphthalene by WDOE Interim TPH Policy Method using GC/MS
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-BN-5			**B703142-05**				**Soil**	
Methyl tert-butyl ether	0370676	3/25/97	3/26/96		1.00	ND	mg/kg dry	
Benzene	"	"	"		0.200	ND	"	
Toluene	"	"	"		0.200	ND	"	
Ethylbenzene	"	"	"		0.200	ND	"	
m,p-Xylene	"	"	"		0.400	ND	"	
o-Xylene	"	"	"		0.200	ND	"	
Naphthalene	"	"	"		0.200	ND	"	
Surrogate: 1,2-DCA-d4	"	"	"	*70.0-130*		*87.3*	*%*	
Surrogate: Toluene-d8	"	"	"	*70.0-130*		*90.0*	"	
Surrogate: 4-BFB	"	"	"	*70.0-130*		*88.8*	"	

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Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

Extractable Petroleum Hydrocarbons by WDOE Interim TPH Policy Method
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-BS-6			**B703142-06**				**Soil**	
C8-C10 Aliphatics	0470100	4/4/97	4/5/97		5.00	**10.5**	mg/kg dry	
C10-C12 Aliphatics	"	"	"		5.00	**16.9**	"	
C12-C16 Aliphatics	"	"	"		5.00	**55.5**	"	
C16-C21 Aliphatics	"	"	"		5.00	**44.2**	"	
C21-C34 Aliphatics	"	"	"		5.00	**426**	"	
C10-C12 Aromatics	"	"	4/9/97		10.0	ND	"	
C12-C16 Aromatics	"	"	"		10.0	**26.8**	"	
C16-C21 Aromatics	"	"	"		10.0	**69.5**	"	
C21-C34 Aromatics	"	"	"		10.0	**602**	"	
Surrogate: Octacosane	"	"	*4/5/97*	*60.0-140*		*69.1*	*%*	
Surrogate: 2-FBP	"	"	*4/9/97*	*60.0-140*		*76.7*	"	

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Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

Polynuclear Aromatic Hydrocarbons by WDOE Interim TPH Policy Method using GC/MS-SIM
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-BS-6			**B703142-06**				**Soil**	
Acenaphthene	0470100	4/4/97	4/9/97		0.0400	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0400	ND	"	
Anthracene	"	"	"		0.0400	**0.0456**	"	
Benzo (a) anthracene	"	"	"		0.0400	**0.208**	"	
Benzo (a) pyrene	"	"	"		0.0400	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0400	**0.324**	"	
Benzo (ghi) perylene	"	"	"		0.0400	**0.225**	"	
Benzo (k) fluoranthene	"	"	"		0.0400	**0.113**	"	
Chrysene	"	"	"		0.0400	**0.273**	"	
Dibenzo (a,h) anthracene	"	"	"		0.0400	**0.0487**	"	
Fluoranthene	"	"	"		0.0400	**0.514**	"	
Fluorene	"	"	"		0.0400	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0400	**0.153**	"	
2-Methylnaphthalene	"	"	"			**0.0726**	"	
Naphthalene	"	"	"		0.0400	ND	"	
Phenanthrene	"	"	"		0.0400	**0.279**	"	
Pyrene	"	"	"		0.0400	**0.623**	"	
Surrogate: p-Terphenyl-d14	"	"	"	*60.0-140*		*104*	%	

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Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EX-BN-5	B703142-05	Soil	76.8	%
EX-BS-6	B703142-06	Soil	36.3	%

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Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

Volatile Petroleum Hydrocarbons by WDOE Interim TPH Policy Method/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0370814	**Date Prepared: 3/28/97**					**Extraction Method: MeOH Extraction**				
Blank	**0370814-BLK1**									
C5-C6 Aliphatics	4/1/97			**ND**	mg/kg dry	**5.00**				
C6-C8 Aliphatics	"			**ND**	"	**5.00**				
C8-C10 Aliphatics	"			**ND**	"	**5.00**				
C10-C12 Aliphatics	"			**ND**	"	**5.00**				
C8-C10 Aromatics	"			**ND**	"	**5.00**				
C10-C12 Aromatics	"			**ND**	"	**5.00**				
C12-C13 Aromatics	"			**ND**	"	**5.00**				
Surrogate: 4-BFB (FID)	"	*4.00*		*3.78*	"	*80.0-120*	*94.5*			
Surrogate: 4-BFB (PID)	"	*4.00*		*4.76*	"	*80.0-120*	*119*			

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

BTEX, MTBE and Naphthalene by WDOE Interim TPH Policy Method using GC/MS/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0370676	**Date Prepared: 3/25/97**					**Extraction Method: MeOH Extraction**				
Blank	**0370676-BLK1**									
Methyl tert-butyl ether	3/25/97			**ND**	mg/kg dry	**1.00**				
Benzene	"			**ND**	"	**0.200**				
Toluene	"			**ND**	"	**0.200**				
Ethylbenzene	"			**ND**	"	**0.200**				
m,p-Xylene	"			**ND**	"	**0.400**				
o-Xylene	"			**ND**	"	**0.200**				
Naphthalene	"			**ND**	"	**0.200**				
Surrogate: 1,2-DCA-d4	"	*2.00*		*1.80*	"	*70.0-130*	*90.0*			
Surrogate: Toluene-d8	"	*2.00*		*2.08*	"	*70.0-130*	*104*			
Surrogate: 4-BFB	"	*2.00*		*1.96*	"	*70.0-130*	*98.0*			
Matrix Spike	**0370676-MS1**		**B703468-08**							
Benzene	3/26/96	1.16	ND	0.947	mg/kg dry	70.0-130	**81.6**			
Toluene	"	1.16	ND	1.05	"	70.0-130	**90.5**			
Surrogate: 1,2-DCA-d4	"	*2.32*		*2.14*	"	*70.0-130*	*92.2*			
Surrogate: Toluene-d8	"	*2.32*		*2.34*	"	*70.0-130*	*101*			
Surrogate: 4-BFB	"	*2.32*		*2.21*	"	*70.0-130*	*95.3*			
Matrix Spike Dup	**0370676-MSD1**		**B703468-08**							
Benzene	3/26/96	1.16	ND	0.931	mg/kg dry	70.0-130	**80.3**	20.0	**1.61**	
Toluene	"	1.16	ND	1.01	"	70.0-130	**87.1**	20.0	**3.83**	
Surrogate: 1,2-DCA-d4	"	*2.32*		*2.35*	"	*70.0-130*	*101*			
Surrogate: Toluene-d8	"	*2.32*		*2.23*	"	*70.0-130*	*96.1*			
Surrogate: 4-BFB	"	*2.32*		*2.04*	"	*70.0-130*	*87.9*			

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ERI	Project:	Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

Extractable Petroleum Hydrocarbons by WDOE Interim TPH Policy Method/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0470100	**Date Prepared: 4/4/97**					**Extraction Method: EPA 3550**				
Blank	**0470100-BLK1**									
C8-C10 Aliphatics	4/5/97			ND	mg/kg dry	5.00				
C10-C12 Aliphatics	"			ND	"	5.00				
C12-C16 Aliphatics	"			ND	"	5.00				
C16-C21 Aliphatics	"			ND	"	5.00				
C21-C34 Aliphatics	"			ND	"	5.00				
C10-C12 Aromatics	"			ND	"	5.00				
C12-C16 Aromatics	"			ND	"	5.00				
C16-C21 Aromatics	"			ND	"	5.00				
C21-C34 Aromatics	"			ND	"	5.00				
Surrogate: Octacosane	"	*6.82*		*5.19*	"	*60.0-140*	*76.1*			
Surrogate: 2-FBP	"	*6.87*		*5.41*	"	*60.0-140*	*78.7*			
LCS	**0470100-BS1**									
C8-C10 Aliphatics	4/5/97	1.64		1.36	mg/kg dry	70.0-130	82.9			
C10-C12 Aliphatics	"	1.67		1.47	"	70.0-130	88.0			
C12-C16 Aliphatics	"	1.67		1.50	"	70.0-130	89.8			
C16-C21 Aliphatics	"	1.67		1.89	"	70.0-130	113			
C21-C34 Aliphatics	"	1.67		2.12	"	70.0-130	127			
C10-C12 Aromatics	"	1.67		1.34	"	70.0-130	80.2			
C12-C16 Aromatics	"	5.01		4.27	"	70.0-130	85.2			
C16-C21 Aromatics	"	8.35		7.93	"	70.0-130	95.0			
C21-C34 Aromatics	"	13.4		9.69	"	70.0-130	72.3			
Surrogate: Octacosane	"	*6.82*		*5.28*	"	*60.0-140*	*77.4*			
Surrogate: 2-FBP	"	*6.87*		*5.51*	"	*60.0-140*	*80.2*			
Duplicate	**0470100-DUP1**		**B703505-01**							
C8-C10 Aliphatics	4/5/97		ND	ND	mg/kg dry			25.0		
C10-C12 Aliphatics	"		ND	ND	"			25.0		
C12-C16 Aliphatics	"		ND	7.72	"			25.0		1
C16-C21 Aliphatics	"		6.98	9.79	"			25.0	**33.5**	1
C21-C34 Aliphatics	"		119	79.5	"			25.0	**39.8**	1
C10-C12 Aromatics	"		ND	ND	"			25.0		
C12-C16 Aromatics	"		ND	ND	"			25.0		
C16-C21 Aromatics	"		10.5	6.86	"			25.0	**41.9**	1
C21-C34 Aromatics	"		136	33.8	"			25.0	**120**	1
Surrogate: Octacosane	"	*8.15*		*5.94*	"	*60.0-140*	*72.9*			
Surrogate: 2-FBP	"	*8.21*		*6.29*	"	*60.0-140*	*76.6*			

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1921 Edmonds Drive SE	Project Number:	31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:34

Extractable Petroleum Hydrocarbons by WDOE Interim TPH Policy Method/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike	**0470100-MS1**		**B703505-01**							
C8-C10 Aliphatics	4/5/97	1.96	ND	1.77	mg/kg dry	70.0-130	**90.3**			
C10-C12 Aliphatics	"	1.99	ND	2.58	"	70.0-130	**130**			
C12-C16 Aliphatics	"	1.99	ND	7.55	"	70.0-130	**NR**			2
C16-C21 Aliphatics	"	1.99	6.98	10.7	"	70.0-130	**187**			2
C21-C34 Aliphatics	"	1.99	119	106	"	70.0-130	**NR**			2
C10-C12 Aromatics	"	2.00	ND	1.77	"	70.0-130	**88.5**			
C12-C16 Aromatics	"	5.99	ND	6.57	"	70.0-130	**110**			
C16-C21 Aromatics	"	9.97	10.5	20.1	"	70.0-130	**96.3**			
C21-C34 Aromatics	"	16.0	136	61.5	"	70.0-130	**NR**			2
Surrogate: Octacosane	"	*8.15*		*6.59*	"	*60.0-140*	*80.9*			
Surrogate: 2-FBP	"	*8.21*		*7.25*	"	*60.0-140*	*88.3*			

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Polynuclear Aromatic Hydrocarbons by WDOE Interim TPH Policy Method using GC/MS-SIM/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0470100	**Date Prepared: 4/4/97**					**Extraction Method: EPA 3550**				
Blank	**0470100-BLK1**									
Acenaphthene	4/9/97			ND	mg/kg dry	0.0200				
Acenaphthylene	"			ND	"	0.0200				
Anthracene	"			ND	"	0.0200				
Benzo (a) anthracene	"			ND	"	0.0200				
Benzo (a) pyrene	"			ND	"	0.0200				
Benzo (b) fluoranthene	"			ND	"	0.0200				
Benzo (ghi) perylene	"			ND	"	0.0200				
Benzo (k) fluoranthene	"			ND	"	0.0200				
Chrysene	"			ND	"	0.0200				
Dibenzo (a,h) anthracene	"			ND	"	0.0200				
Fluoranthene	"			ND	"	0.0200				
Fluorene	"			ND	"	0.0200				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0200				
2-Methylnaphthalene	"			ND	"	0.0200				
Naphthalene	"			ND	"	0.0200				
Phenanthrene	"			ND	"	0.0200				
Pyrene	"			ND	"	0.0200				
Surrogate: p-Terphenyl-d14	"	*1.33*		*1.22*	"	*17.0-120*	*91.7*			
LCS	**0470100-BS1**									
Chrysene	4/9/97	1.67		1.63	mg/kg dry	10.0-125	97.6			
Fluorene	"	1.67		1.29	"	11.0-116	77.2			
Indeno (1,2,3-cd) pyrene	"	1.67		1.97	"	10.0-147	118			
Surrogate: p-Terphenyl-d14	"	*1.33*		*1.43*	"	*17.0-120*	*108*			
Duplicate	**0470100-DUP1**	**B703505-01**								
Acenaphthene	4/9/97		ND	ND	mg/kg dry			25.0		
Acenaphthylene	"		ND	ND	"			25.0		
Anthracene	"		0.0363	0.0283	"			25.0	**24.8**	
Benzo (a) anthracene	"		0.202	0.199	"			25.0	**1.50**	
Benzo (a) pyrene	"		0.264	0.253	"			25.0	**4.26**	
Benzo (b) fluoranthene	"		0.279	0.279	"			25.0	**0**	
Benzo (ghi) perylene	"		0.225	0.217	"			25.0	**3.62**	
Benzo (k) fluoranthene	"		0.111	0.0951	"			25.0	**15.4**	
Chrysene	"		0.253	0.250	"			25.0	**1.19**	
Dibenzo (a,h) anthracene	"		0.0419	0.0382	"			25.0	**9.24**	
Fluoranthene	"		0.338	0.334	"			25.0	**1.19**	

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Polynuclear Aromatic Hydrocarbons by WDOE Interim TPH Policy Method using GC/MS-SIM/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Duplicate (continued)	**0470100-DUP1**		**B703505-01**							
Fluorene	4/9/97		ND	ND	mg/kg dry			25.0		
Indeno (1,2,3-cd) pyrene	"		0.218	0.212	"			25.0	**2.79**	
2-Methylnaphthalene	"		ND	ND	"			25.0		
Naphthalene	"		ND	ND	"			25.0		
Phenanthrene	"		0.201	0.175	"			25.0	**13.8**	
Pyrene	"		0.616	0.510	"			25.0	**18.8**	
Surrogate: p-Terphenyl-d14	"	*1.59*		*1.56*	"	*17.0-120*	*98.1*			
Matrix Spike	**0470100-MS1**		**B703505-01**							
Chrysene	4/9/97	2.00	0.253	2.21	mg/kg dry	10.0-125	**97.9**			
Fluorene	"	1.99	ND	1.51	"	10.0-154	**75.9**			
Indeno (1,2,3-cd) pyrene	"	1.99	0.218	2.53	"	10.0-144	**116**			
Surrogate: p-Terphenyl-d14	"	*1.59*		*1.57*	"	*17.0-120*	*98.7*			

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**Refer to end of report for text of notes and definitions.*

Matthew Essig, Project Manager

NORTH CREEK ANALYTICAL
Environmental Laboratory Services

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ERI	Project: Texaco #63-232-0037	Sampled: 3/10/97
1921 Edmonds Drive SE	Project Number: 31001.14T3	Received: 3/10/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/11/97 07:34

Notes and Definitions

#	Note
1	Visual evaluation indicates the RPD is above the control limit due to a non-homogeneous sample matrix.
2	The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical, Inc.

Matthew Essig, Project Manager

NORTH CREEK ANALYTICAL

[illegible] 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) [illegible]1-9200 FAX 485-2[illegible]
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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

TEXACO CHAIN OF CUSTODY REPORT

Work Order #: B703142

CONSULTANT: ERI
PROJECT MANAGER: Meyer
ADDRESS: 1921 Edmonds Dr SE
Renton, WA 98055
PHONE: (206) 227-0280 FAX: 227-0225
PROJECT NAME: Texaco Greenwood
PROJECT NUMBER: 31001
SAMPLED BY: Meyer

TEXACO INFORMATION
TEXACO PROJECT MANAGER: T Geiger
TEXACO FACILITY NUMBER: 63-232-0037
SITE ADDRESS: 8701 Greenwood Ave
Seattle, WA
State Hydrocarbon Methods (please circle): WA OR [illegible]

TURNAROUND REQUEST in Business Days
Organic & Inorganic Analyses *: 10 | 5 | 3 | 1
Air Analyses *: 3 | 1
OTHER Specify:
* Standard Turnaround for Organic & Inorganic Analyses is 10.
* Standard Turnaround for Air Analyses is 3 Days

NCA SAMPLE NUMBER	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	TPH-G/BTEX	TPH-D	TPH-D Extended	TPH-418.1	TPH-HCID	Tot/Diss Lead	VPH + Target	EPH + Target	MATRIX (W, S, O)	# OF CONTAINERS	COMMENTS & PRESERVATIVES
B703142-01	1. EX2-E-3	3/10/97	X	X	X						S	1	RUSH
-02	2. EX-N-4		X	X	X								
-03	3. EX-WN-4		X	X	X								
-04	4. EX-EN-4		X	X	X								
-05	5. EX-BN-5		X	X	X								
-06	6. EX-BS-6		X	X	X								
-07	7. EX-WS-5		X	X	X								
-08	8. EX-S-5		X	X	X								
-09	9. EX-ES-5		X	X	X								
	10.												

RELINQUISHED BY: [signature] DATE: 3/10/97
PRINT NAME: John Meyer FIRM: ERI TIME: 4:49

RECEIVED BY: Lisa Hurley DATE: 3/10/97
PRINT NAME: Lisa Hurley FIRM: NCA TIME: 16:40

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS: Fax results to MEYER ASAP
& Geiger

Obtain STD MTP for T. Geiger this AM

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TEXCOC.REV2.11/95

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ERI	Project: Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number: 31001	Received: 3/25/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/11/97 07:31

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EX4-E-3	B703505-01	Soil	3/14/97

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ERI	Project:	Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number:	31001	Received: 3/25/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:31

Extractable Petroleum Hydrocarbons by WDOE Interim TPH Policy Method
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX4-E-3			**B703505-01**				**Soil**	
C8-C10 Aliphatics	0470100	4/4/97	4/5/97		5.00	ND	mg/kg dry	
C10-C12 Aliphatics	"	"	"		5.00	ND	"	
C12-C16 Aliphatics	"	"	"		5.00	ND	"	
C16-C21 Aliphatics	"	"	"		5.00	**6.98**	"	
C21-C34 Aliphatics	"	"	"		5.00	**119**	"	
C10-C12 Aromatics	"	"	"		5.00	ND	"	
C12-C16 Aromatics	"	"	"		5.00	ND	"	
C16-C21 Aromatics	"	"	"		5.00	**10.5**	"	
C21-C34 Aromatics	"	"	"		5.00	**136**	"	
Surrogate: Octacosane	"	"	"	*60.0-140*		*74.1*	%	
Surrogate: 2-FBP	"	"	"	*60.0-140*		*NR*	"	*1*

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ERI	Project:	Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number:	31001	Received: 3/25/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:31

Polynuclear Aromatic Hydrocarbons by WDOE Interim TPH Policy Method using GC/MS-SIM
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX4-E-3			**B703505-01**				**Soil**	
Acenaphthene	0470100	4/4/97	4/9/97		0.0200	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0200	ND	"	
Anthracene	"	"	"		0.0200	**0.0363**	"	
Benzo (a) anthracene	"	"	"		0.0200	**0.202**	"	
Benzo (a) pyrene	"	"	"		0.0200	**0.264**	"	
Benzo (b) fluoranthene	"	"	"		0.0200	**0.279**	"	
Benzo (ghi) perylene	"	"	"		0.0200	**0.225**	"	
Benzo (k) fluoranthene	"	"	"		0.0200	**0.111**	"	
Chrysene	"	"	"		0.0200	**0.253**	"	
Dibenzo (a,h) anthracene	"	"	"		0.0200	**0.0419**	"	
Fluoranthene	"	"	"		0.0200	**0.338**	"	
Fluorene	"	"	"		0.0200	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0200	**0.218**	"	
2-Methylnaphthalene	"	"	"		0.0200	ND	"	
Naphthalene	"	"	"		0.0200	ND	"	
Phenanthrene	"	"	"		0.0200	**0.201**	"	
Pyrene	"	"	"		0.0200	**0.616**	"	
Surrogate: p-Terphenyl-d14	"	"	"	*17.0-120*		*107*	%	

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ERI	Project:	Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number:	31001	Received: 3/25/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:31

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EX4-E-3	B703505-01	Soil	83.7	%

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ERI	Project:	Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number:	31001	Received: 3/25/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:31

Extractable Petroleum Hydrocarbons by WDOE Interim TPH Policy Method/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0470100	**Date Prepared: 4/4/97**					**Extraction Method: EPA 3550**				
Blank	**0470100-BLK1**									
C8-C10 Aliphatics	4/5/97			ND	mg/kg dry	5.00				
C10-C12 Aliphatics	"			ND	"	5.00				
C12-C16 Aliphatics	"			ND	"	5.00				
C16-C21 Aliphatics	"			ND	"	5.00				
C21-C34 Aliphatics	"			ND	"	5.00				
C10-C12 Aromatics	"			ND	"	5.00				
C12-C16 Aromatics	"			ND	"	5.00				
C16-C21 Aromatics	"			ND	"	5.00				
C21-C34 Aromatics	"			ND	"	5.00				
Surrogate: Octacosane	"	*6.82*		*5.19*	"	*60.0-140*	*76.1*			
Surrogate: 2-FBP	"	*6.87*		*5.41*	"	*60.0-140*	*78.7*			
LCS	**0470100-BS1**									
C8-C10 Aliphatics	4/5/97	1.64		1.36	mg/kg dry	70.0-130	82.9			
C10-C12 Aliphatics	"	1.67		1.47	"	70.0-130	88.0			
C12-C16 Aliphatics	"	1.67		1.50	"	70.0-130	89.8			
C16-C21 Aliphatics	"	1.67		1.89	"	70.0-130	113			
C21-C34 Aliphatics	"	1.67		2.12	"	70.0-130	127			
C10-C12 Aromatics	"	1.67		1.34	"	70.0-130	80.2			
C12-C16 Aromatics	"	5.01		4.27	"	70.0-130	85.2			
C16-C21 Aromatics	"	8.35		7.93	"	70.0-130	95.0			
C21-C34 Aromatics	"	13.4		9.69	"	70.0-130	72.3			
Surrogate: Octacosane	"	*6.82*		*5.28*	"	*60.0-140*	*77.4*			
Surrogate: 2-FBP	"	*6.87*		*5.51*	"	*60.0-140*	*80.2*			
Duplicate	**0470100-DUP1**		**B703505-01**							
C8-C10 Aliphatics	4/5/97		ND	ND	mg/kg dry			25.0		
C10-C12 Aliphatics	"		ND	ND	"			25.0		
C12-C16 Aliphatics	"		ND	7.72	"			25.0		2
C16-C21 Aliphatics	"		6.98	9.79	"			25.0	**33.5**	2
C21-C34 Aliphatics	"		119	79.5	"			25.0	**39.8**	2
C10-C12 Aromatics	"		ND	ND	"			25.0		
C12-C16 Aromatics	"		ND	ND	"			25.0		
C16-C21 Aromatics	"		10.5	6.86	"			25.0	**41.9**	2
C21-C34 Aromatics	"		136	33.8	"			25.0	**120**	2
Surrogate: Octacosane	"	*8.15*		*5.94*	"	*60.0-140*	*72.9*			
Surrogate: 2-FBP	"	*8.21*		*6.29*	"	*60.0-140*	*76.6*			

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Matthew Essig, Project Manager

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ERI	Project:	Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number:	31001	Received: 3/25/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:31

Extractable Petroleum Hydrocarbons by WDOE Interim TPH Policy Method/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike	**0470100-MS1**		**B703505-01**							
C8-C10 Aliphatics	4/5/97	1.96	ND	1.77	mg/kg dry	70.0-130	**90.3**			
C10-C12 Aliphatics	"	1.99	ND	2.58	"	70.0-130	**130**			
C12-C16 Aliphatics	"	1.99	ND	7.55	"	70.0-130	**NR**			3
C16-C21 Aliphatics	"	1.99	6.98	10.7	"	70.0-130	**187**			3
C21-C34 Aliphatics	"	1.99	119	106	"	70.0-130	**NR**			3
C10-C12 Aromatics	"	2.00	ND	1.77	"	70.0-130	**88.5**			
C12-C16 Aromatics	"	5.99	ND	6.57	"	70.0-130	**110**			
C16-C21 Aromatics	"	9.97	10.5	20.1	"	70.0-130	**96.3**			
C21-C34 Aromatics	"	16.0	136	61.5	"	70.0-130	**NR**			3
Surrogate: Octacosane	"	*8.15*		*6.59*	"	*60.0-140*	*80.9*			
Surrogate: 2-FBP	"	*8.21*		*7.25*	"	*60.0-140*	*88.3*			

Refer to end of report for text of notes and definitions.

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ERI	Project:	Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number:	31001	Received: 3/25/97
Renton, WA 98055	Project Manager:	John Meyer	Reported: 4/11/97 07:31

Polynuclear Aromatic Hydrocarbons by WDOE Interim TPH Policy Method using GC/MS-SIM/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0470100	**Date Prepared: 4/4/97**					**Extraction Method: EPA 3550**				
Blank	**0470100-BLK1**									
Acenaphthene	4/9/97			ND	mg/kg dry	0.0200				
Acenaphthylene	"			ND	"	0.0200				
Anthracene	"			ND	"	0.0200				
Benzo (a) anthracene	"			ND	"	0.0200				
Benzo (a) pyrene	"			ND	"	0.0200				
Benzo (b) fluoranthene	"			ND	"	0.0200				
Benzo (ghi) perylene	"			ND	"	0.0200				
Benzo (k) fluoranthene	"			ND	"	0.0200				
Chrysene	"			ND	"	0.0200				
Dibenzo (a,h) anthracene	"			ND	"	0.0200				
Fluoranthene	"			ND	"	0.0200				
Fluorene	"			ND	"	0.0200				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0200				
2-Methylnaphthalene	"			ND	"	0.0200				
Naphthalene	"			ND	"	0.0200				
Phenanthrene	"			ND	"	0.0200				
Pyrene	"			ND	"	0.0200				
Surrogate: p-Terphenyl-d14	"	*1.33*		*1.22*	"	*17.0-120*	*91.7*			
LCS	**0470100-BS1**									
Chrysene	4/9/97	1.67		1.63	mg/kg dry	10.0-125	97.6			
Fluorene	"	1.67		1.29	"	11.0-116	77.2			
Indeno (1,2,3-cd) pyrene	"	1.67		1.97	"	10.0-147	118			
Surrogate: p-Terphenyl-d14	"	*1.33*		*1.43*	"	*17.0-120*	*108*			
Duplicate	**0470100-DUP1**	**B703505-01**								
Acenaphthene	4/9/97		ND	ND	mg/kg dry			25.0		
Acenaphthylene	"		ND	ND	"			25.0		
Anthracene	"		0.0363	0.0283	"			25.0	**24.8**	
Benzo (a) anthracene	"		0.202	0.199	"			25.0	**1.50**	
Benzo (a) pyrene	"		0.264	0.253	"			25.0	**4.26**	
Benzo (b) fluoranthene	"		0.279	0.279	"			25.0	**0**	
Benzo (ghi) perylene	"		0.225	0.217	"			25.0	**3.62**	
Benzo (k) fluoranthene	"		0.111	0.0951	"			25.0	**15.4**	
Chrysene	"		0.253	0.250	"			25.0	**1.19**	
Dibenzo (a,h) anthracene	"		0.0419	0.0382	"			25.0	**9.24**	
Fluoranthene	"		0.338	0.334	"			25.0	**1.19**	

Refer to end of report for text of notes and definitions.

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Matthew Essig, Project Manager

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ERI	Project: Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number: 31001	Received: 3/25/97
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Polynuclear Aromatic Hydrocarbons by WDOE Interim TPH Policy Method using GC/MS-SIM/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Duplicate (continued)	**0470100-DUP1**		**B703505-01**							
Fluorene	4/9/97		ND	ND	mg/kg dry			25.0		
Indeno (1,2,3-cd) pyrene	"		0.218	0.212	"			25.0	**2.79**	
2-Methylnaphthalene	"		ND	ND	"			25.0		
Naphthalene	"		ND	ND	"			25.0		
Phenanthrene	"		0.201	0.175	"			25.0	**13.8**	
Pyrene	"		0.616	0.510	"			25.0	**18.8**	
Surrogate: p-Terphenyl-d14	"	*1.59*		*1.56*	"	*17.0-120*	*98.1*			
Matrix Spike	**0470100-MS1**		**B703505-01**							
Chrysene	4/9/97	2.00	0.253	2.21	mg/kg dry	10.0-125	**97.9**			
Fluorene	"	1.99	ND	1.51	"	10.0-154	**75.9**			
Indeno (1,2,3-cd) pyrene	"	1.99	0.218	2.53	"	10.0-144	**116**			
Surrogate: p-Terphenyl-d14	"	*1.59*		*1.57*	"	*17.0-120*	*98.7*			

Refer to end of report for text of notes and definitions.

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ERI	Project: Texaco Greenwood	Sampled: 3/14/97
1921 Edmonds Drive SE	Project Number: 31001	Received: 3/25/97
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/11/97 07:31

Notes and Definitions

#	Note
1	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
2	Visual evaluation indicates the RPD is above the control limit due to a non-homogeneous sample matrix.
3	The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

APPENDIX B

SOIL DISPOSAL MANIFESTS AND WEIGH TICKETS

Customer Job Report

Gross & Tare Weight Codes: M=Manual; S=Scale; T=Trk File

Job Number Name	SiteAddress	SiteCity	State	ZipCode
A03 -- 00623 TEXACO #63-232-0037	8701 GREENWOOD AVENUE	SEATTLE	WA	00000

Load #	Date & Time Out	Transporter #	Truck & Trailer Number	Gross (lb)	Tare (lb)	Net (lb)	Net Wt (tons)
33	02/17/97 08:07	3ESECOR	REX	49,420M	22,840M	26,580	13.29
34	02/17/97 08:07	3ESECOR	DARIN	93,140M	38,180M	54,960	27.48
35	02/19/97 08:21	3ESECOR	REX	81,680M	33,260M	48,420	24.21
36	02/19/97 08:22	3ESECOR	REX	77,480M	33,260M	44,220	22.11
37	02/20/97 08:31	3ESECOR	REX	53,200M	33,260M	19,940	9.97

Completed Loads	Manifests Received	Completed Weight	Estimated Weight	TOTAL Net Wt:
77.50%	31	15,184.20%	5.00(tons)	97.06 (tons)

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	033

Generator and/or Consultant

Generator's Name and Billing Address: TEXACO EH&S 3400 - 188th STREET SW SUITE 630 LYNNWOOD, WA 98037 USA	Generator's Phone #: (206) 771-6090 Person to Contact: ~~[illegible]~~ THERESA GEIJER FAX#: (206) 771-7786	Generator's US EPA ID No. Customer Account Number with TPS: 1001513
Consultant's Name and Billing Address: ERI 1921 EDMONDS DRIVE SE RENTON, WA 98055 USA	Consultant's Phone #: (206) 227-0280 Person to Contact: JOHN MEYER FAX#: (206) 227-0225	 Customer Account Number with TPS: 1002230
Generation Site (Transport from): *(name & address)* TEXACO #63-232-0037 8701 GREENWOOD AVENUE SEATTLE, WA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS Technologies Inc. 2800 - 104th Street Court South Tacoma, WA 98444-6766 USA	Facility Phone #: (206)584-8430 Person to Contact: Renee Avelino FAX#: (206)584-8309	Facility Permit Numbers
Transporter Name and Mailing Address: ESE CORPORTATION 11011 WALLER ROAD EAST TACOMA, WA 98446 USA	Transporter's Phone #: (206) 535-3112 Person to Contact: WES JOHNSON FAX#: (206) 535-3298	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			49480	22840	26580
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			13,29		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
X				

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
[illegible]		2	17	97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
RENEE AVELINO - CSM	

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	034

Generator and/or Consultant

Generator's Name and Billing Address:
TEXACO SH&S
3400 - 188th STREET SW
SUITE 630
LYNNWOOD, WA 98037 USA

Generator's Phone #: (206) 771-6090
Generator's US EPA ID No.:
Person to Contact: ~~MARK BARROW~~ THERESA GEIJER
FAX#: (206) 771-7786
Customer Account Number with TPS: 1001513

Consultant's Name and Billing Address:
ERI
1921 EDMONDS DRIVE SE
RENTON, WA 98055 USA

Consultant's Phone #: (206) 227-0280
Person to Contact: JOHN MEYER
FAX#: (206) 227-0225
Customer Account Number with TPS: 1002230

Generation Site (Transport from): *(name & address)*
TEXACO #63-232-0037
8701 GREENWOOD AVENUE
SEATTLE, WA 00000 USA

Site Phone #:
Person to Contact:
FAX#:
BTEX Levels
TPH Levels
AVG. Levels

Designated Facility (Transport to): *(name & address)*
TPS Technologies Inc.
2800 - 104th Street Court South
Tacoma, WA 98444-6766 USA

Facility Phone #: (206)584-8430
Person to Contact: Renee Avelino
FAX#: (206)584-8309
Facility Permit Numbers:

Transporter Name and Mailing Address:
ESE CORPORTATION
11011 WALLER ROAD EAST
TACOMA, WA 98446 USA

Transporter's Phone #: (206) 535-3112
Person to Contact: WES JOHNSON
FAX#: (206) 535-3298
Transporter's US EPA ID No.:
Transporter's DOT No.:
Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ❑ Organic ❑ Clay ❑ Other ❑	0 - 10% ❑ 10 - 20% ❑ 20% - over ❑	Gas ❑ Diesel ❑ Other ❑			73140	38180	34960
Sand ❑ Organic ❑ Clay ❑ Other ❑	0 - 10% ❑ 10 - 20% ❑ 20% - over ❑	Gas ❑ Diesel ❑ Other ❑			27.48		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: X — Generator ❑ Consultant ❑
Signature and date: Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: DARIN MORLAND
Signature and date: Month 2 | Day 17 | Year 97

Recycling Facility

Discrepancies:
THIS MANIFEST REPLACES THE HANDWRITTEN MANIFEST SENT WITH DARIN IN MY ABSENCE. SEE ATTACHED FOR ORIGINAL SIGNATURES.

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM
Signature and date: 2/17/97

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	GENERATOR		A03	623	34

Generator and/or Consultant

Generator's Name and Billing Address: TEXACO EH&S 3400 - 188th street SW Suite 630 LYNNWOOD, WA. 98037	Generator's Phone #: (206) 771-6090 Person to Contact: MIKE LONDON/TERESA GETLER FAX#: (206) 771-7786	Generator's US EPA ID No. Customer Account Number with TPS: 100153
Consultant's Name and Billing Address: ERI 1921 EDMONDS DRIVE SE RENTON, WA. 98055	Consultant's Phone #: (206) 227-0280 Person to Contact: JOHN MEYER FAX#: (206) 227-0225	Customer Account Number with TPS: 1002230
Generation Site (Transport from): *(name & address)* TEXACO # 63-232-0037 8701 GREENWOOD AVENUE SEATTLE, WA. 00000	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES INC. 2800 104th street Court S. TACOMA, WA. 98444-6766	Facility Phone #: (206) 584-8430 Person to Contact: STEVE AVELINO FAX#: (206) 584-8309	Facility Permit Numbers
Transporter Name and Mailing Address: ESE Corporation 11011 WALLER ROAD EAST TACOMA, WA. 98446	Transporter's Phone #: (206) 535-3112 Person to Contact: WES JOHNSON FAX#: (206) 535-3298	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS: 3ESE00R

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			93410	38180	54[illegible]
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			57,48		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐ | Signature and date: | Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: DARIN MOLANEY | Signature and date: | Month: 2 | Day: 17 | Year: 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above.

Print or Type Name: | Signature and date:

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	095

Generator and/or Consultant

Generator's Name and Billing Address:
TEXACO EH&S
3400 - 188th STREET SW
SUITE 630
LYNNWOOD, WA 98037 USA

Generator's Phone #: (206) 771-6090
Person to Contact: THERESA GEIJER
FAX#: (206) 771-7786
Generator's US EPA ID No.:
Customer Account Number with TPS: 1001513

Consultant's Name and Billing Address:
ERI
1921 EDMONDS DRIVE SE
RENTON, WA 98055 USA

Consultant's Phone #: (206) 227-0280
Person to Contact: JOHN MEYER
FAX#: (206) 227-0225
Customer Account Number with TPS: 1002230

Generation Site (Transport from): *(name & address)*
TEXACO #63-232-0037
2701 GREENWOOD AVENUE
SEATTLE, WA 00000 USA

Site Phone #:
Person to Contact:
FAX#:
BTEX Levels
TPH Levels
AVG. Levels

Designated Facility (Transport to): *(name & address)*
TPS Technologies Inc.
2800 - 104th Street Court South
Tacoma, WA 98444-6766 USA

Facility Phone #: (206)584-8430
Person to Contact: Renee Avelino
FAX#: (206)584-8309
Facility Permit Numbers:

Transporter Name and Mailing Address:
ESE CORPORTATION
11011 WALLER ROAD EAST
TACOMA, WA 98446 USA

Transporter's Phone #: (206) 535-3112
Person to Contact: WES JOHNSON
FAX#: (206) 535-3298
Transporter's US EPA ID No.:
Transporter's DOT No.:
Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			81680	33260	48420
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			24121		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐
X
Signature and date: Month Day Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: KEXW JOHNSON
Signature and date: Month 2 Day 19 Year 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM
Signature and date: 2/19

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	035

Generator and/or Consultant

Generator's Name and Billing Address:
TEXACO EH&S
3400 - 188th STREET SW
SUITE 630
LYNNWOOD, WA 98037 USA

Generator's Phone #: (206) 771-6090
Person to Contact: THERESA GEIJER
FAX#: (206) 771-7786
Generator's US EPA ID No.:
Customer Account Number with TPS: 1001513

Consultant's Name and Billing Address:
ERI
1921 EDMONDS DRIVE SE
RENTON, WA 98055 USA

Consultant's Phone #: (206) 227-0280
Person to Contact: JOHN MEYER
FAX#: (206) 227-0225
Customer Account Number with TPS: 1002230

Generation Site (Transport from): *(name & address)*
TEXACO #63-232-0037
8701 GREENWOOD AVENUE
SEATTLE, WA 00000 USA

Site Phone #:
Person to Contact:
FAX#:
BTEX Levels
TPH Levels
AVG. Levels

Designated Facility (Transport to): *(name & address)*
TPS Technologies Inc.
2800 - 104th Street Court South
Tacoma, WA 98444-6766 USA

Facility Phone #: (206)584-8430
Person to Contact: Renee Avelino
FAX#: (206)584-8309
Facility Permit Numbers:

Transporter Name and Mailing Address:
ESE CORPORTATION
11011 WALLER ROAD EAST
TACOMA, WA 98446 USA

Transporter's Phone #: (206) 535-3112
Person to Contact: WES JOHNSON
FAX#: (206) 535-3298
Transporter's US EPA ID No.:
Transporter's DOT No.:
Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			77480	33260	44220
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			22.11		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐
X
Signature and date: Month Day Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Ron Johnson
Signature and date: Month 2 Day 19 Year 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM
Signature and date: 2/19

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	037

Generator and/or Consultant

Generator's Name and Billing Address:	Generator's Phone #:	Generator's US EPA ID No.
TEXACO EH&S 3400 - 188th STREET SW SUITE 630 LYNNWOOD, WA 98037 USA	(206) 771-6090 Person to Contact: THERESA GEIJER FAX#: (206) 771-7786	Customer Account Number with TPS: 1001513
Consultant's Name and Billing Address:	**Consultant's Phone #:**	
ERI 1921 EDMONDS DRIVE SE RENTON, WA 98055 USA	(206) 227-0280 Person to Contact: JOHN MEYER FAX#: (206) 227-0225	Customer Account Number with TPS: 1002230
Generation Site (Transport from): *(name & address)*	**Site Phone #:**	BTEX Levels
TEXACO #63-232-0037 8701 GREENWOOD AVENUE SEATTLE, WA 00000 USA	Person to Contact: FAX#:	TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)*	**Facility Phone #:**	Facility Permit Numbers
TPS Technologies Inc. 2800 - 104th Street Court South Tacoma, WA 98444-6766 USA	(206)584-8430 Person to Contact: Renee Avelino FAX#: (206)584-8309	
Transporter Name and Mailing Address:	**Transporter's Phone #:**	Transporter's US EPA ID No.:
ESE CORPORTATION 11011 WALLER ROAD EAST TACOMA, WA 98446 USA	(206) 535-3112 Person to Contact: WES JOHNSON FAX#: (206) 535-3298	Transporter's DOT No.: Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			53200	33960	19240
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			9.97		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: X Generator ☐ Consultant ☐ Signature and date: Month Day Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Signature and date: Month Day Year

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM Signature and date: 2/20

Please print or type.

TPS INVOICING COPY

Customer Job Report

Gross & Tare Weight Codes: M=Manual; S=Scale; T=Trk File

Job Number Name	SiteAddress	SiteCity	State	ZipCode
A03 -- 00623 TEXACO #63-232-0037	8701 GREENWOOD AVENUE	SEATTLE	WA	00000

Load #	Date & Time Out	Transporter #	Truck & Trailer Number	Gross (lb)	Tare (lb)	Net (lb)	Net Wt (tons)
38	03/10/97 08:10	3ESECOR	JOHN	49,000M	22,840M	26,160	13.08
39	03/11/97 08:17	3ESECOR	DARIN	48,960M	25,240M	23,720	11.86
40	03/11/97 08:18	3ESECOR	JOHN	29,240M	22,840M	6,400	3.20
41	03/13/97 09:28	3ESECOR	REX	12,300M	7,340M	4,960	2.48
42	03/18/97 08:21	3ESECOR	DEVIN	11,240M	7,340M	3,900	1.95

Completed Loads	Manifests Received	Completed Weight	Estimated Weight	TOTAL Net Wt:
60.00%	36	15,835.60%	5.00(tons)	32.57 (tons)

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	038

Generator and/or Consultant

Generator's Name and Billing Address: TEXACO EH&S 3400 - 188th STREET SW SUITE 630 LYNNWOOD, WA 98037 USA	Generator's Phone #: (206) 771-6090 Person to Contact: THERESA SEIJER FAX#: (206) 771-7786	Generator's US EPA ID No. Customer Account Number with TPS: 1001513
Consultant's Name and Billing Address: ERI 1921 EDMONDS DRIVE SE RENTON, WA 98055 USA	Consultant's Phone #: (206) 227-0280 Person to Contact: JOHN MEYER FAX#: (206) 227-0225	 Customer Account Number with TPS: 1002230
Generation Site (Transport from): *(name & address)* TEXACO #63-232-0037 3701 GREENWOOD AVENUE SEATTLE, WA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS Technologies Inc. 2800 - 104th Street Court South Tacoma, WA 98444-6766 USA	Facility Phone #: (206)584-8430 Person to Contact: Renee Avelino FAX#: (206)584-8309	Facility Permit Numbers
Transporter Name and Mailing Address: RSE CORPORTATION 11011 WALLER ROAD EAST TACOMA, WA 98446 USA	Transporter's Phone #: (206) 535-3112 Person to Contact: WES JOHNSON FAX#: (206) 535-3298	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			49000	22840	26160
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			13.08		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: X Generator ☐ Consultant ☐ | Signature and date: | Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: X JOHN FELDBUSH | Signature and date: | Month 3 | Day 10 | Year 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM | Signature and date: 3/10

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	039

Generator and/or Consultant

Generator's Name and Billing Address: TEXACO EH&S 3400 - 188th STREET SW SUITE 630 LYNNWOOD, WA 98037 USA	Generator's Phone #: (206) 771-6090 Person to Contact: THERESA GEIJER FAX#: (206) 771-7786	Generator's US EPA ID No. Customer Account Number with TPS: 1001513
Consultant's Name and Billing Address: ERI 1921 EDMONDS DRIVE SE RENTON, WA 98055 USA	Consultant's Phone #: (206) 227-0280 Person to Contact: JOHN MEYER FAX#: (206) 227-0225	 Customer Account Number with TPS: 1002230
Generation Site (Transport from): *(name & address)* TEXACO #63-232-0037 8701 GREENWOOD AVENUE SEATTLE, WA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS Technologies Inc. 2800 - 104th Street Court South Tacoma, WA 98444-6766 USA	Facility Phone #: (206)584-8430 Person to Contact: Renee Avelino FAX#: (206)584-8309	Facility Permit Numbers
Transporter Name and Mailing Address: ESE CORPORTATION 11011 WALLER ROAD EAST TACOMA, WA 98446 USA	Transporter's Phone #: (206) 535-3112 Person to Contact: WES JOHNSON FAX#: (206) 535-3298	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			48960	25240	23720
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			11.86		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name:	Generator ☐	Consultant ☐	Signature and date:	Month	Day	Year
X						

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
KARIN MOILANEN		3	11	97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
RENEE AVELINO - CSM	Rebecca Lindstrom 3/11

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	240

Generator and/or Consultant

Generator's Name and Billing Address: TEXACO EH&S 3400 - 188th STREET SW SUITE 630 LYNNWOOD, WA 98037 USA	Generator's Phone #: (206) 771-6090 Person to Contact: THERESA GEIJER FAX#: (206) 771-7786	Generator's US EPA ID No. Customer Account Number with TPS: 1001513
Consultant's Name and Billing Address: ERI 1921 EDMONDS DRIVE SE RENTON, WA 98055 USA	Consultant's Phone #: (206) 227-0280 Person to Contact: JOHN MEYER FAX#: (206) 227-0225	 Customer Account Number with TPS: 1002230
Generation Site (Transport from): *(name & address)* TEXACO #63-232-0037 8701 GREENWOOD AVENUE SEATTLE, WA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS Technologies Inc. 2800 - 104th Street Court South Tacoma, WA 98444-6766 USA	Facility Phone #: (206)584-8430 Person to Contact: Renee Avelino FAX#: (206)584-8309	Facility Permit Numbers
Transporter Name and Mailing Address: ESE CORPORTATION 11011 WALLER ROAD EAST TACOMA, WA 98446 USA	Transporter's Phone #: (206) 535-3112 Person to Contact: WES JOHNSON FAX#: (206) 535-3298	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ❑ Organic ❑ Clay ❑ Other ❑	0 - 10% ❑ 10 - 20% ❑ 20% - over ❑	Gas ❑ Diesel ❑ Other ❑			29240	22840	6400
Sand ❑ Organic ❑ Clay ❑ Other ❑	0 - 10% ❑ 10 - 20% ❑ 20% - over ❑	Gas ❑ Diesel ❑ Other ❑			3.20		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name:	Generator ❑	Consultant ❑	Signature and date:	Month	Day	Year
X						

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
X JOHN FLODBUSH		3	11	97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
RENEE AVELINO - CSM	Rebecca Sutton 3/11

Please print or type.

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	041

Generator and/or Consultant

Generator's Name and Billing Address: TEXACO EH&S 3400 - 188th STREET SW SUITE 630 LYNNWOOD, WA 98037 USA	Generator's Phone #: (206) 771-6090 Person to Contact: THERESA GELIER FAX#: (206) 771-7786	Generator's US EPA ID No. Customer Account Number with TPS: 1001513
Consultant's Name and Billing Address: ERI 1921 EDMONDS DRIVE SE RENTON, WA 98055 USA	Consultant's Phone #: (206) 227-0280 Person to Contact: JOHN MEYER FAX#: (206) 227-0225	 Customer Account Number with TPS: 1002230
Generation Site (Transport from): *(name & address)* TEXACO #63-232-0037 8701 GREENWOOD AVENUE SEATTLE, WA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS Technologies Inc. 2800 - 104th Street Court South Tacoma, WA 98444-6766 USA	Facility Phone #: (206)584-8430 Person to Contact: Renee Avelino FAX#: (206)584-8309	Facility Permit Numbers
Transporter Name and Mailing Address: ESE CORPORTATION 11011 WALLER ROAD EAST TACOMA, WA 98446 USA	Transporter's Phone #: (206) 535-3112 Person to Contact: WES JOHNSON FAX#: (206) 535-3298	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			12300	7340	4960
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			2.48	-	

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
X				

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
WES JOHNSON		3	13	97

Recycling Facility

Discrepancies:
See ATTACHED MANIFEST FOR DRIVERS SIGNATURE. MANIFEST WAS HAND WRITTEN ORIGINALLY DUETO Computer glich.

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
RENEE AVELINO - CSM	Renee Avelino 3/13/97

Please print or type.

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #

Generator and/or Consultant

Generator's Name and Billing Address:
TEXACO EH&S
3400 - 188th Street SW
Suite 630
Lynnwood, WA. 98037 USA

Generator's Phone #: (206) 771-6090
Person to Contact: THERESA GEIGER
FAX#: (206) 771-7786
Generator's US EPA ID No.:
Customer Account Number with TPS: 1001513

Consultant's Name and Billing Address:
ERI
1921 EDMONDS DRIVE SE
RENTON, WA. 98055

Consultant's Phone #: (206) 227-0280
Person to Contact: John Rieger
FAX#: (206) 227-0225
Customer Account Number with TPS: 100-2230

Generation Site (Transport from): *(name & address)*
TEXACO # 63-232-0037
8701 GREENWOOD AVE.
SEATTLE WA. 00000

Site Phone #:
Person to Contact:
FAX#:
BTEX Levels
TPH Levels
AVG. Levels

Designated Facility (Transport to): *(name & address)*
TPS Technologies INC
2800 104th Street Court South
Tacoma, WA. 98448-6716

Facility Phone #: (206) 584-8430
Person to Contact: RENEE HUELING
FAX#: (206) 584-8309
Facility Permit Numbers:

Transporter Name and Mailing Address:
ESE CORPORTATION
11011 WALLER ROAD EAST
TACOMA WA. 98446

Transporter's Phone #: (206) 535-3112
Person to Contact: WES JOHNSON
FAX#: (206) 535-3258
Transporter's US EPA ID No.:
Transporter's DOT No.:
Customer Account Number with TPS: 3ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			12300	7340	4960
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐		TONS	2.48		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐ | Signature and date: | Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: [illegible] | Signature and date: | Month: 3 | Day: 18 | Year: 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: | Signature and date:

Please print or type.

TPS INVOICING COPY

Manifest

TPS Technologies Soil Recycling
Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Generator		A03	00623	042

Generator and/or Consultant

Generator's Name and Billing Address:
TEXACO EH&S
3400 - 188th STREET SW
SUITE 630
LYNNWOOD, WA 98037 USA

Generator's Phone #: (206) 771-6090
Person to Contact: THERESA GEIJER
FAX#: (206) 771-7786
Generator's US EPA ID No.:
Customer Account Number with TPS: 1001513

Consultant's Name and Billing Address:
ERI
1921 EDMONDS DRIVE SE
RENTON, WA 98055 USA

Consultant's Phone #: (206) 227-0280
Person to Contact: JOHN MEYER
FAX#: (206) 227-0225
Customer Account Number with TPS: 1002230

Generation Site (Transport from): *(name & address)*
TEXACO #63-232-0037
8701 GREENWOOD AVENUE
SEATTLE, WA 00000 USA

Site Phone #:
Person to Contact:
FAX#:
BTEX Levels
TPH Levels
AVG. Levels

Designated Facility (Transport to): *(name & address)*
TPS Technologies Inc.
3800 - 104th Street Court South
Tacoma, WA 98444-6766 USA

Facility Phone #: (206)584-8430
Person to Contact: Renee Avelino
FAX#: (206)584-8309
Facility Permit Numbers:

Transporter Name and Mailing Address:
ESE CORPORTATION
11011 WALLER ROAD EAST
TACOMA, WA 98446 USA

Transporter's Phone #: (206) 535-3112
Person to Contact: WES JOHNSON
FAX#: (206) 535-3298
Transporter's US EPA ID No.:
Transporter's DOT No.:
Customer Account Number with TPS: ESECOR

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			11240	7340	3900
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐			1.95		

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐ | Signature and date: | Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Devin Rodewig | Signature and date: | Month: 11 | Day: 18 | Year: 97

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: RENEE AVELINO - CSM | Signature and date: Renee Avelino 8/18

Please print or type.

TPS INVOICING COPY

APPENDIX C

METRO DISCHARGE AUTHORIZATION

Post-it® Fax Note 7671

To John Meyer	Date	# of pages ▶
Co./Dept. ERI	From Horace Lee	
Phone # 227-0280	Co. King County	
Fax # 227-0225	Phone # 689-3017	
	Fax # 689-3001	

King County
Water Pollution Control Division
Industrial Waste Program
Department of Natural Resources
130 Nickerson Street, Suite 200
Seattle, WA 98109-1658

September 11, 1996

Robert E. Bayley Construction, Inc.
205 Columbia Street
P.O. Box 4567
Seattle, WA 98104-0567

Authorization to Discharge to the Sanitary Sewer

Dear Mr. Bayley:

The King County Department of Natural Resources' Industrial Waste Program has reviewed the September 6, 1996, letter requesting authorization to discharge groundwater pumped from the former Texaco Facility #63-232-0037 located at 8701 Greenwood Avenue North, Seattle, Washington to the sanitary sewer. King County grants approval for the discharge of up to 1000 gpd of groundwater for up to one month provided that: Kami Wong of Seattle Drainage and Wastewater (684-7774) is notified to allow for assessment of sewer charges; and the discharge criteria outlined in the following paragraphs are met. There is no fee for this authorization.

This authorization permits you to discharge limited amounts of groundwater into the King County sewer system in accordance with the regulations outlined in King County Code 28.84.060 and Ordinance No. 11034 (enclosed) and the following discharge criteria:

Discharge Limitations

Constituent	Maximum Concentration, ppm
Benzene	0.13
Toluene	1.5
Ethylbenzene	1.4
Nonpolar Fats, Oil & Grease (Nonpolar FOG)	10
Lead	4.0

Operating Procedures

a) There shall be no pronounced odor of solvent or gasoline.
b) There shall be no pronounced oil sheen or unusual color.
c) There shall be no pronounced hydrogen sulfide (rotten egg) odor.
d) There shall be no visibly pronounced turbidity; the discharge must remain translucent.

King County will expect operators on site to pay close attention to these operating procedures whenever discharge to the sanitary sewer is occurring. If any of the discharge limits or operating criteria are exceeded, you must stop discharging and notify the King County Industrial Waste Section at 689-3000.

The formal requirements and fees of a full wastewater permit will not be required as long as you maintain good compliance and do not change the nature and volume of your discharge.

Changes to, or additions at, this facility may cause us to reassess this decision and require that you obtain a full wastewater discharge permit. If you propose to substantially increase the volume of your discharge or change the type and quantities of substances discharged, you must submit a new waste discharge permit application to King County. State law requires that such application for a permit be made a minimum of sixty (60) days before starting a new discharge. Therefore, to avoid delays, please time your submittal accordingly.

King County Industrial Waste staff want to help you stay in compliance with our regulations. If at any time you have questions about this authorization, or other questions about your discharge, please do not hesitate to call me at 689-3017.

Sincerely,

Horace Lee

Horace Lee
Senior Industrial Waste Investigator
Department of Natural Resource, Business Outreach Unit

Enclosure

cc: Doug Knutson, Department of Ecology
Kami Wong, City of Seattle
Doug Hilderbrand, King County

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