TANK REMOVAL AND SAMPLING REPORT
36 Winchester Drive
Atherton, California
December 22, 2004

E_2C, Inc. Project Number 2398SC01

Prepared For

Mr. Loring C. Lynch and Ms. Holly A. Lynch
36 Winchester Drive
Atherton, California 95112

Prepared By

E_2C, Inc.
382 Martin Avenue
Atherton, California 95050-3112
408.327.5700

December 22, 2004
Project Number 2398SC01
Via US Mail

Mr. Loring C. Lynch and Ms. Holly A. Lynch
36 Winchester Drive
Atherton, California 95112

Subject: TANK REMOVAL AND SAMPLING REPORT
36 Winchester Drive
Atherton, California

Dear Mr. & Ms. Lynch:

E_2C, Inc. is pleased to present the accompanying tank removal and sampling report for the subject Site.

E_2C, Inc. appreciates the opportunity to have been of service. Should you have any questions or require additional information or services please call us at 408.327.5700.

Sincerely,
E_2C, Inc.

Forrest Cook for
Project Manager

Sako K. Noravian, MSSE, PE, REA
Principal

Cc: Mr. Arnie Montemagni
Environmental Health Services Division
San Mateo County Environmental Health Agency
455 County Center
Redwood City, CA 94063

REGISTERED PROFESSIONAL ENGINEER
S.K. NORAVIAN
C 21294
EXP. 9/30/05
CIVIL
STATE OF CALIFORNIA

E_2C INC
ENVIRONMENTAL / ENGINEERING CONSULTANTS
Since 1970
382 Martin Avenue, Santa Clara, CA 95050-3112 Tel: 408.327.5700 Fax: 408.327.5707

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1.0 INTRODUCTION

This report presents the results of the excavation and removal of one approximately 750-gallon underground storage tank (UST) and subsequent soil sampling at 36 Winchester Drive in the City of Atherton, California (hereinafter referred to as the Site). These operations were performed in accordance with all relevant State of California regulations and local ordinances.

1.1 Scope of Services

The Scope of Services performed included the following:

- Remove the exposed UST from the ground under the direction of an Inspector from the San Mateo County Health Services Agency.
- Collect soil samples from the bottom of the excavation and from the stockpiles of excavated soil, as directed by the Hazardous Materials Inspector.
- Analyze each of the samples collected for the presence of TPH Gasoline (TPHg), TPH Diesel (TPHd), Total Oil and Grease (TOG), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), as instructed by the Hazardous Materials Inspector.
- Transport the tank to an appropriate disposal facility by an appropriately licensed hauler under a hazardous waste manifest.
- Prepare a formal tank removal report that presents a description of the field activities, including analytical data and all disposal manifests. This report will be presented to the San Mateo County Health Services as part of the permit requirements.

1.2 Site Location and Description

The Site is identified as at 36 Winchester Drive in Atherton, California. The property is developed with single family residential building. The 750-gallon UST was removed from the ground directly adjacent to the northern edge of the Site building. A Site Location Map (Figure 1) and Site Plan (Figure 2) are presented in the Figures section of this report.

1.3 Regional Geology and Soil Conditions

The site is located on the western side of the San Francisco Bay depression approximately 3.0 to 3.5 miles west to southwest of the San Francisco Bay. The Bay depression is a major structural feature in northwestern California that is located between the Diablo Range and the Santa Cruz Mountains. The Bay depression was created by the downwarping of the San Andreas Rift Zone, near the western side of the depression, and the Hayward Fault along the eastern side (California Department of Water Resources, 1968).

The regional geology of the San Francisco Bay Area, in most low lying areas of urban development surrounding the Bay rim, is defined by the United States Geological Survey as Holocene alluvial fan deposits. Regional groundwater flow within the shallow water bearing zones beneath these areas is generally towards the San Francisco Bay except in site specific areas where it may be influenced by local phenomena such as groundwater extraction or surface streams. In some low lying areas along the Bay rim, the groundwater gradient is essentially "flat", often resulting in great variability and/or significant seasonal changes in site specific groundwater flow directions. Soils in the area generally and primarily consist of silt and clay with relatively thin interbedded layers of more transmissive sands and/or gravels where groundwater is found.

Alluvial deposits of late Pleistocene Age (10,000 to 70 million years before present) underlie the site area. The alluvium was derived mainly from sedimentary rock that was deposited by flowing water from active stream channels, on terraces and developing alluvial fans. These late Pleistocene deposits are locally very thick, and generally consist of weakly consolidated, slightly weathered, poorly sorted, irregular, interbedded clay, silt, sand and gravel (Helley et al., 1979).

1.4 Hydrologic Conditions

Site-specific groundwater information was not available for the Site, this information can only be accurately determined by the installation of at least three on-Site groundwater monitoring wells. Groundwater in the area of the Site can, however, be estimated to be first encountered at approximately 25 to 35-feet below ground surface (bgs) and flow in an easterly direction towards the San Francisco Bay.

2.0 TANK REMOVAL OPERATIONS

Mr. Forrest Cook of E_2C was at the Site on December 10, 2004 to collect soil samples and oversee the tank removal activities. When Mr. Cook arrived, the UST had already been exposed and dry ice had been added to the empty tanks, by HSR, Inc. of San Jose, California. According to HSR, approximately one foot of product (i.e. about 150-gallons) was still in the tank when it was exposed. This product was pumped out of the tank and hauled off-Site by HSR prior to exposing the tank. Under the supervision of Mr. Arnie Montemagni, Hazardous Materials Specialist from the San Mateo County Health Services Agency (SMCHSA), the tank was removed from the open excavation and loaded onto a flatbed truck. The tank appeared to be in good condition and no obvious holes were noted in the bottom of the tank. The tank was hauled from the Site under Uniform Hazardous Waste Manifest (Appendix A) to Ecology Control Industries in Richmond, California. The tank removal permit is presented in Appendix B.

2.1 Soil and Water Sampling

After the tank was removed from the pit, a puddle of oil was observed in the bottom of the excavation. Under the direction of Mr. Cook approximately 2 feet of soil were overexcavated from the bottom of the pit. This overexcavated soil was placed in a separate stockpile from the overburden soil that was previously excavated to expose the tank. Then under the direction of Mr. Montemagni one soil sample (S-1) was collected

from the native soils below the overexcavated area. Also one soil sample was collected from each of the two stockpiles. Sample Number Stock-1 was collected from the stock pile that consisted of the overexcavated soils below the tank, and Sample Number Stock-2 was collected from the larger stock pile of the overburden soils. Soil sample locations are shown on Figure 2.

Each of soil samples were collected in clean brass liners sealed with Teflon, capped, labeled, and immediately placed in an iced cooler. The samples were kept in the cooler during transportation to Entech Analytical Laboratories (State Certification #2346). Please refer to Appendix C for the laboratory data sheets and Chain of Custody Documents.

Following the removal activities the tank pit was backfilled with the overburden soil as a safety precaution and to prevent a cave in.

2.2 Sample Analyses

Mr. Montemagni requested that each of the collected samples be analyzed for the following constituents:

- Total Petroleum Hydrocarbons as diesel (TPHd) by EPA Test Method 8015
- Total Petroleum Hydrocarbons as gasoline (TPHg) by EPA Test Method 8015
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) by EPA Test Method 8260
- Total Oil and Grease (TOG) by SM 5520C

A summary of the analytical results are presented in the following table. Complete laboratory data sheets and chain of custody documents are presented in Appendix C.

TABLE I: Soil Sample Analytical Results

	Sample ID		
Analyte	**S-1**	**Stock-1**	**Stock-2**
TPHG (µg/Kg)	4100*	130,000*	ND<50
TPHD (mg/Kg)	9600	9200	5.5
TOG (mg/Kg)	5900	5700	ND<25
Benzene (µg/Kg)	ND<25	ND<1000	ND<5
Toluene(µg/Kg)	<25	ND<1000	ND<5
Ethylbenzene (µg/Kg)	<25	ND<1000	ND<5
Xylenes (µg/Kg)	69	ND<2000	ND<10

* Denotes not a gasoline pattern; volatile fraction of Diesel calculated as gasoline

3.0 CONCLUSIONS AND RECOMMENDATIONS

As shown in Table I, high concentrations of TPHG and TPHD were detected in the soil sample (S-1) collected from two-feet below the former underground tank. However, as denoted on the laboratory report the detected TPHG concentrations do not denote a gasoline pattern. Rather this concentration is a detected fraction of Diesel calculated as gasoline. These high concentrations matched with the observed puddle of diesel below the tank, indicate that the UST did in fact leak. Based on our experience, it is likely that this case will now be passed on to the San Mateo County Health Services Groundwater Protection Program. Furthermore, it is likely that further investigations will be required at the Site by the Groundwater Protection Agency. If, indeed, further action is required a directive letter will be issued by the Groundwater Protection Agency instructed the responsible party as to what actions are required.

4.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The conclusions of this report are based solely on the Scope of Services outlined and the referenced sources of information. Any additional information that becomes available concerning this report should be submitted to E_2C, Inc. so that our conclusions may be reviewed and modified, if necessary. This report was prepared in December of 2004.

Prepared by:

Forrest Cook
Project Manager

Sako K. Noravian, MSSE, PE, REA
Principal

REGISTERED PROFESSIONAL ENGINEER
S.K. NORAVIAN
C 21294
EXP. 9/30/05
CIVIL
STATE OF CALIFORNIA

5.0 REFRENCES

Atwater, T. 1970. Implications of Plate Tectonics for Cenozoic Tectonic Evolution of Western North America, Geologic Society of AmeriCaliforniaBulletin 1981, pp. 3513-3535.

Helley, E.J. and Lajoie, K.R. 1979. Flatland Deposits of the San Francisco Bay Region, California, USGS Professional Paper 943.

United States Department of Agriculture, Soil Conservation Service. 1981. Soil Survey of Atherton County, California, Western Part.

United States Geological Survey. 1953, photorevised 1980. San Mateo Quadrangle, California, 7.5-Minute Series, Topographic Map.

FIGURES

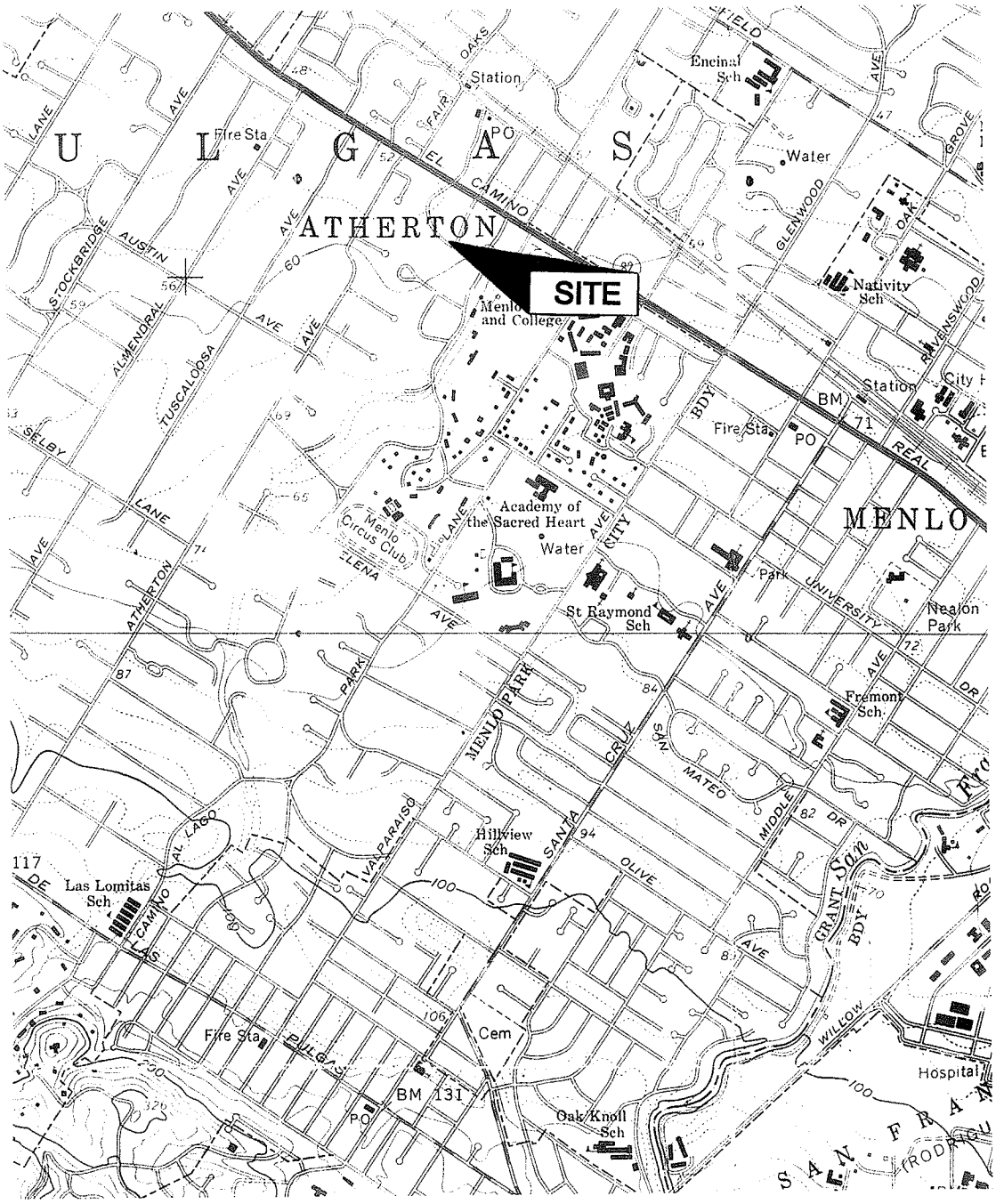

FIGURE 1 – SITE LOCATION MAP

Address: 36 Winchester Drive	Client Name: Lynch
City/State: Atherton, CA	E_2C Project Number: 2398C01

ENVIRONMENTAL/ENGINEERING CONSULTANTS
382 MARTIN AVENUE
SANTA CLARA, CALIFORNIA 95050-3112
TEL: 408.327.5700 FAX: 408.327-5707

Source:
San Jose West, CA Quad
1961 (photorevised 1980)
Scale:
1:24,000

N

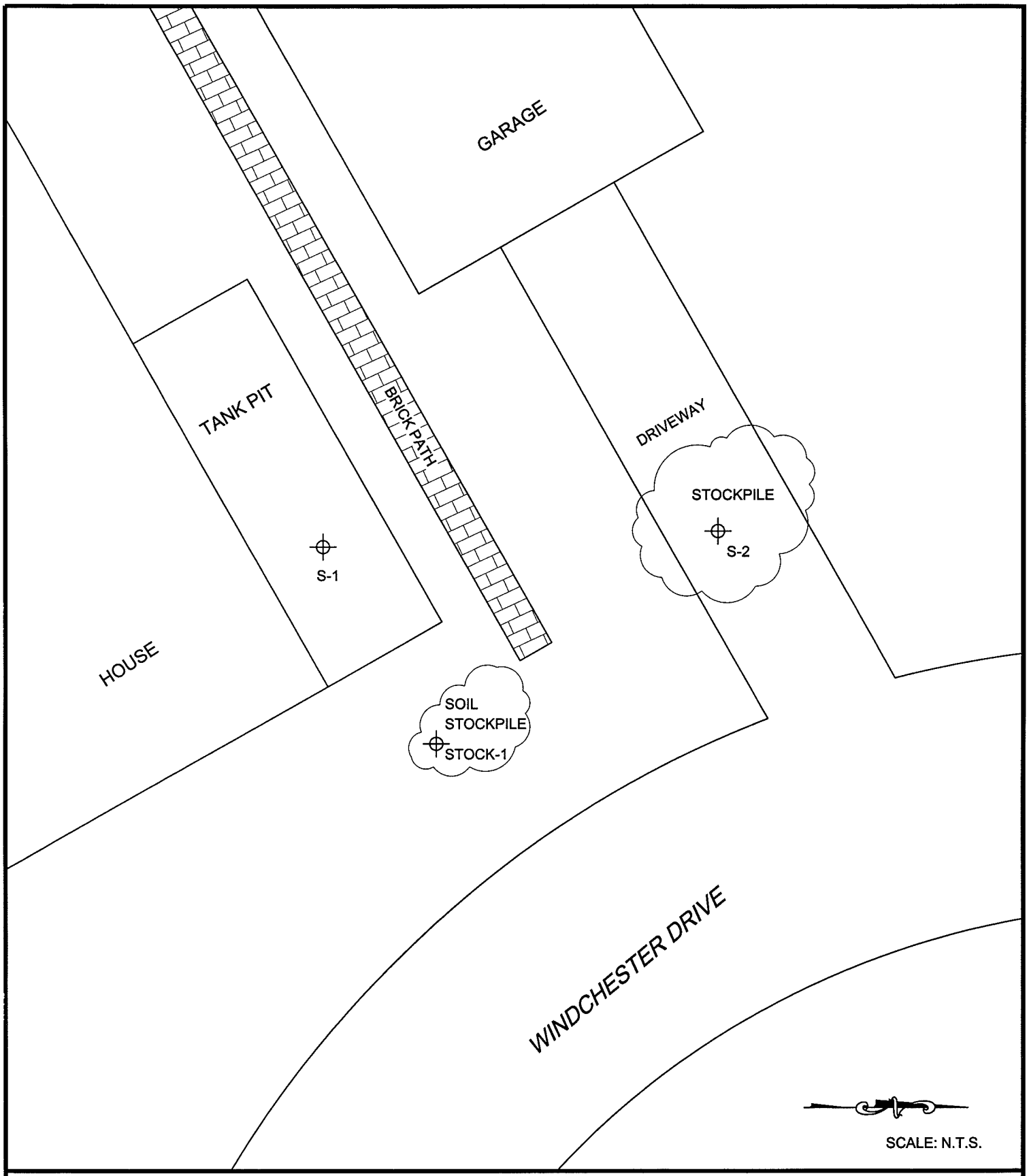

FIGURE 2 - SITE MAP

ENVIRONMENTAL / ENGINEERING CONSULTANTS
382 MARTIN AVENUE
SANTA CLARA, CALIFORNIA 95050-3112
TEL: 408.327.5700 FAX: 408.327.5707

36 WINDCHESTER DRIVE
ATHERTON, CALIFORNIA

FILENAME: 2342SC01
DATE: JULY 2004
REVISION:
DRAWN: JL

JOB NUMBER:
2342SC01

APPENDIX A

UNIFORM HAZARDOUS WASTE MANIFEST

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number: 24087071

B. State Generator's ID

5. Transporter 1 Company Name: Ecology Control Industries

6. US EPA ID Number: CAD982030173

C. State Transporter's ID [Reserved.]

D. Transporter's Phone: (510) 235-1393

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID [Reserved.]

F. Transporter's Phone

9. Designated Facility Name and Site Address: Ecology Control Industries, 255 Parr Blvd, Richmond, CA 94801

10. US EPA ID Number: CAD009466392

G. State Facility's ID

H. Facility's Phone: 510-235-1393

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
Non-RCRA hazardous waste, solid (waste empty storage tank)	001	TP	~~00500~~ 10750	P	State 512; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
1 EMPTY STORAGE TANK # 32190
TANKS HAVE BEEN INERTED WITH 15 LBS DRY ICE PER 1000 GALLONS CAPACITY

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Wear proper protective equipment while handling. Weights or volumes are approximate.
24 Hour emergency contact:
24 Hour emergency telephone number: ECI JOB# 52T1565

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Forrest Cook | Signature: [signature] | Month 12 Day 10 Year 04

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] | Signature: [signature] | Month 12 Day 10 Year 04

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month Day Year

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

24087071

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS

APPENDIX B

UST REMOVAL PERMIT

UNIFIED PROGRAM CONSOLIDATED FORM

TANKS

UNDERGROUND STORAGE TANKS - FACILITY

(one page per site) Page 1 of 1

TYPE OF ACTION (Check one item only): ☐ 1. NEW SITE PERMIT ☐ 3. RENEWAL PERMIT ☐ 4. AMENDED PERMIT ☐ 5. CHANGE OF INFORMATION specify change local use only _____ ☐ 6. TEMPORARY SITE CLOSURE ☐ 7. PERMANENTLY CLOSED SITE ☒ 8. TANK REMOVED 400

I. FACILITY / SITE INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As): Loring Lynch 3

FACILITY ID#: CA C0025839 12 1

NEAREST CROSS STREET: El Camino Real 401

BUSINESS TYPE: ☐ 1. GAS STATION ☐ 2. DISTRIBUTOR ☐ 3. FARM ☐ 4. PROCESSOR ☐ 5. COMMERCIAL ☐ 6. OTHER 402

FACILITY OWNER TYPE: ☐ 1. CORPORATION ☒ 2. INDIVIDUAL ☐ 3. PARTNERSHIP ☐ 4. LOCAL AGENCY/DISTRICT* ☐ 5. COUNTY AGENCY* ☐ 6. STATE AGENCY* ☐ 7. FEDERAL AGENCY* 403

TOTAL NUMBER OF TANKS REMAINING AT SITE: one 404

Is facility on Indian Reservation or trustlands? ☐ Yes ☒ No 405

*If owner of UST is a public agency: name of supervisor of division, section or office which operates the UST (This is the contact person for the tank records.) 406

II. PROPERTY OWNER INFORMATION

PROPERTY OWNER NAME: Loring Lynch 407

PHONE: 650 852-4156 408

MAILING OR STREET ADDRESS: 36 Winchester Drive 409

CITY: Atherton 410

STATE: CA 411

ZIP CODE: 94027 412

PROPERTY OWNER TYPE: ☐ 1. CORPORATION ☒ 2. INDIVIDUAL ☐ 3. PARTNERSHIP ☐ 4. LOCAL AGENCY / DISTRICT ☐ 5. COUNTY AGENCY ☐ 6. STATE AGENCY ☐ 7. FEDERAL AGENCY 413

III. TANK OWNER INFORMATION

TANK OWNER NAME: Loring Lynch 414

PHONE: 650 852-4156 415

MAILING OR STREET ADDRESS: 36 Winchester Drive 416

CITY: Atherton 417

STATE: CA 418

ZIP CODE: 94027 419

TANK OWNER TYPE: ☐ 1. CORPORATION ☒ 2. INDIVIDUAL ☐ 3. PARTNERSHIP ☐ 4. LOCAL AGENCY / DISTRICT ☐ 5. COUNTY AGENCY ☐ 6. STATE AGENCY ☐ 7. FEDERAL AGENCY 420

IV. BOARD OF EQUALIZATION UST STORAGE FEE ACCOUNT NUMBER

TY (TK) HQ 44- | | | | | | Call (916) 322-9669 if questions arise 421

V. PETROLEUM UST FINANCIAL RESPONSIBILITY

INDICATE METHOD(s): ☐ 1. SELF-INSURED ☐ 2. GUARANTEE ☒ 3. INSURANCE ☐ 4. SURETY BOND ☐ 5. LETTER OF CREDIT ☐ 6. EXEMPTION ☐ 7. STATE FUND ☐ 8. STATE FUND & CFO LETTER ☐ 9. STATE FUND & CD ☐ 10. LOCAL GOVT MECHANISM ☐ 99. OTHER: 422

VI. LEGAL NOTIFICATION AND MAILING ADDRESS

Check one box to indicate which address should be used for legal notifications and mailing. Legal notifications and mailings will be sent to the tank owner unless box 1 or 2 is checked. ☐ 1. FACILITY ☒ 2. PROPERTY OWNER ☒ 3. TANK OWNER 423

VII. APPLICANT SIGNATURE

Certification - I certify that the information provided herein is true and accurate to the best of my knowledge.

(*) SIGNATURE OF APPLICANT: Loring Lynch

DATE: 11-9-04 424

PHONE: 650-852-4156 425

(*) NAME OF APPLICANT (print): LORING LYNCH 426

TITLE OF APPLICANT 427

STATE UST FACILITY NUMBER (For local use only) 428

1998 UPGRADE CERTIFICATE NUMBER (For local use only) 429

UNIFIED PROGRAM CONSOLIDATED FORM

UNDERGROUND STORAGE TANKS – TANK PAGE 1

TANKS

(two pages per tank)

Page 1 of 2

TYPE OF ACTION (Check one item only)
- ☐ 1 NEW SITE PERMIT
- ☐ 2 RENEWAL PERMIT
- ☐ 4 AMENDED PERMIT
- ☐ 5 CHANGE OF INFORMATION (Specify reason – for local use only)
- ☐ 6 TEMPORARY SITE CLOSURE
- ☐ 7 PERMANENTLY CLOSED ON SITE
- ☒ 8 TANK REMOVED (Specify reason – for local use only)

BUSINESS NAME (Name of FACILITY NAME or DBA – Doing Business As): Loring Lunch

FACILITY ID:

LOCATION WITHIN SITE (Address): 36 Winchester Drive, Atherton

I. TANK DESCRIPTION (A scaled plot plan with the location of the UST system including buildings and landmarks shall be submitted to the local agency.)

TANK ID #: unknown

TANK MANUFACTURER: unknown

COMPARTMENTALIZED TANK ☐ Yes ☐ No (If "Yes", complete one page for each compartment)

DATE INSTALLED (YEAR/MO): 1940's

TANK CAPACITY IN GALLONS: 500

NUMBER OF COMPARTMENTS

ADDITIONAL DESCRIPTION (For local use only)

II. TANK CONTENTS

TANK USE
- ☐ 1. MOTOR VEHICLE FUEL (If marked complete Petroleum Type)
- ☐ 2. NON-FUEL PETROLEUM
- ☐ 3. CHEMICAL PRODUCT
- ☐ 4. HAZARDOUS WASTE (Includes Used Oil) – heating oil
- ☐ 99. UNKNOWN

PETROLEUM TYPE
- ☐ 1a. REGULAR UNLEADED
- ☐ 1b. PREMIUM UNLEADED
- ☐ 1c. MIDGRADE UNLEADED
- ☐ 2. LEADED
- ☐ 3. DIESEL
- ☐ 4. GASOHOL
- ☐ 5. JET FUEL
- ☐ 6. AVIATION FUEL
- ☐ 99. OTHER

COMMON NAME (From Hazardous Materials Inventory page)

CAS# (From Hazardous Materials Inventory page)

III. TANK CONSTRUCTION

TYPE OF TANK (Check one item only)
- ☐ 1. SINGLE WALL
- ☐ 2. SINGLE WALL WITH EXTERIOR MEMBRANE LINER
- ☐ 3. SINGLE WALL WITH INTERNAL BLADDER SYSTEM
- ☐ 3. DOUBLE WALL
- ☐ 4. SINGLE WALL IN VAULT
- ☒ 95. UNKNOWN
- ☐ 99. OTHER

TANK MATERIAL – primary tank (Check one item only)
- ☐ 1. BARE STEEL
- ☒ 2. STAINLESS STEEL
- ☐ 3. FIBERGLASS / PLASTIC
- ☐ 4. STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC (FRP)
- ☐ 5. CONCRETE
- ☐ 6. FRP COMPTIBLE W/100% METHANOL
- ☐ 95. UNKNOWN
- ☐ 96. OTHER

TANK MATERIAL – secondary tank (Check one item only)
- ☐ 1. BARE STEEL
- ☐ 2. STAINLESS STEEL
- ☐ 3. FIBERGLASS / PLASTIC
- ☐ 4. STEEL CLAD W/FIBERGLASS REINFORCED PLASTIC (FRP)
- ☐ 5. CONCRETE
- ☐ 6. FRP COMPTIBLE W/100% METHANOL
- ☐ 10. COATED STEEL
- ☐ 95. UNKNOWN
- ☐ 99. OTHER

TANK INTERIOR LINING OR COATING (Check one item only)
- ☐ 1. RUBBER LINED
- ☐ 2 ALKYD LINING
- ☐ 3. EPOXY LINING
- ☐ 4 PHENOLIC LINING
- ☐ 5. GLASS LINING
- ☐ 6 UNLINED
- ☒ 95. UNKNOWN
- ☐ 99 OTHER

DATE INSTALLED (For local use only)

OTHER CORROSION PROTECTION IF APPLICABLE (Check one item only)
- ☐ 1 MANUFACTURED CATHODIC PROTECTION
- ☐ 2 SACRIFICIAL ANODE
- ☐ 3 FIBERGLASS REINFORCED PLASTIC
- ☐ 4 IMPRESSED CURRENT
- ☒ 95 UNKNOWN
- ☐ 99 OTHER

DATE INSTALLED (For local use only)

SPILL AND OVERFILL (Check all that apply)
- ☐ 1 SPILL CONTAINMENT
- ☐ 2 DROP TUBE
- ☐ 3 STRIKER PLATE

YEAR INSTALLED

TYPE (local use only)

OVERFILL PROTECTION EQUIPMENT YEAR INSTALLED
- ☐ 1 ALARM
- ☐ 2 BALL FLOAT
- ☐ 3 FILL TUBE SHUT OFF VALVE
- ☐ 4 EXEMPT

IV. TANK LEAK DETECTION (A description of the monitoring program shall be submitted to the local agency.)

IF SINGLE WALL TANK (Check all that apply)
- ☐ 1 VISUAL (EXPOSED PORTION ONLY)
- ☐ 2 AUTOMATIC TANK GAUGING (ATG)
- ☐ 3 CONTINUOUS ATG
- ☐ 4 STATISTICAL INVENTORY RECONCILIATION (SIR) BIENNIAL TANK TESTING
- ☐ 5 MANUAL TANK GAUGING (MTG)
- ☐ 6 VADOSE ZONE
- ☐ 7 GROUNDWATER
- ☐ 8 TANK TESTING
- ☐ 99 OTHER

IF DOUBLE WALL TANK OR TANK WITH BLADDER (Check one item only)
- ☐ 1 VISUAL (SINGLE WALL IN VAULT ONLY)
- ☐ 2 CONTINUOUS INTERSTITIAL MONITORING
- ☐ 3 MANUAL MONITORING

IV. TANK CLOSURE INFORMATION / PERMANENT CLOSURE IN PLACE

ESTIMATED DATE LAST USED (YR/MO/DAY)

ESTIMATED QUANTITY OF SUBSTANCE REMAINING ____ gallons

TANK FILLED WITH INERT MATERIAL? ☐ Yes ☒ No

UNIFIED PROGRAM CONSOLIDATED FORM

UNDERGROUND STORAGE TANKS – TANK PAGE 2

TANKS

VI. PIPING CONSTRUCTION (Check all that apply)

Page 2 of 2

UNDERGROUND PIPING	ABOVEGROUND PIPING
SYSTEM TYPE ☐ 1. PRESSURE ☐ 2. SUCTION ☐ 3. GRAVITY 451	☐ 1. PRESSURE ☐ 2. SUCTION ☐ 3. GRAVITY 459
CONSTRUCTION ☐ 1. SINGLE WALL ☐ 3. LINED TRENCH ☐ 99. OTHER 460	☐ 1. SINGLE WALL ☒ 95. UNKNOWN 462
MANUFACTURER ☐ 2. DOUBLE WALL ☒ 95. UNKNOWN	☐ 2. DOUBLE WALL ☐ 99. OTHER
MANUFACTURER 461	MANUFACTURER 463
☐ 1. BARE STEEL ☐ 6. FRP COMPATIBLE w/100% METHANOL	☐ 1. BARE STEEL ☐ 6. FRP COMPATIBLE W/100% METHANOL
☐ 2. STAINLESS STEEL ☐ 7. GALVANIZED STEEL ☐ Unknown	☒ 2. STAINLESS STEEL ☐ 7. GALVANIZED STEEL
☐ 3. PLASTIC COMPATIBLE W/ CONTENTS ☐ 99. Other	☐ 3. PLASTIC COMPATIBLE W/ CONTENTS ☐ 8. FLEXIBLE (HDPE) ☐ 99. OTHER
☐ 4. FIBERGLASS ☐ 8. FLEXIBLE (HDPE)	☐ 4. FIBERGLASS ☐ 9. CATHODIC PROTECTION
☐ 5. STEEL W/COATING ☐ 9. CATHODIC PROTECTION 464	☐ 5. STEEL W/COATING ☐ 95. UNKNOWN 465

VII. PIPING LEAK DETECTION (Check all that apply) (A description of the monitoring program shall be submitted to the local agency.)

UNDERGROUND PIPING

SINGLE WALL PIPING 466

PRESSURIZED PIPING (Check all that apply):

☐ 1. ELECTRONIC LINE LEAK DETECTOR 3.0 GPH TEST WITH AUTO PUMP SHUT OFF FOR LEAK, SYSTEM FAILURE, AND SYSTEM DISCONNECTION + AUDIBLE AND VISUAL ALARMS.

☐ 2. MONTHLY 0.2 GPH TEST

☐ 3. ANNUAL INTEGRITY TEST (0.1GPH)

CONVENTIONAL SUCTION SYSTEMS

☐ 5. DAILY VISUAL MONITORING OF PUMPING SYSTEM + TRIENNIAL PIPING INTEGRITY TEST (0.1 GPH)

SAFE SUCTION SYSTEMS (NO VALVES IN BELOW GROUNDPIPING):

☐ 7. SELF MONITORING

GRAVITY FLOW

☐ 9. BIENNIAL INTEGRITY TEST (0.1 GPH)

SECONDARILY CONTAINED PIPING

PRESSURIZED PIPING (Check all that apply):

10. CONTINUOUS TURBINE SUMP SENSOR WITH AUDIBLE AND VISUAL ALARMS AND (Check one)

☐ a. AUTO PUMP SHUT OFF WHEN A LEAK OCCURS

☐ b. AUTO PUMP SHUT OFF FOR LEAKS, SYSTEM FAILURE AND SYSTEM DISCONNECTION

☐ c. NO AUTO PUMP SHUT OFF

☐ 11. AUTOMATIC LINE LEAK DETECTOR (3.0 GPH TEST) WITH FLOW SHUT OFF OR RESTRICTION

☐ 12. ANNUAL INTEGRITY TEST (0.1 GPH)

SUCTION/GRAVITY SYSTEM

☐ 13. CONTINUOUS SUMP SENSOR + AUDIBLE AND VISUAL ALARMS

EMERGENCY GENERATORS ONLY (Check all that apply)

☐ 14. CONTINUOUS SUMP SENSOR WITHOUT AUTO PUMP SHUT OFF + AUDIBLE AND VISUAL ALARMS

☐ 15. AUTOMATIC LINE LEAK DETECTOR (3.0 GPH TEST) WITHOUT FLOW SHUT OFF OR RESTRICTION

☐ 16. ANNUAL INTEGRITY TEST (0.1 GPH)

☐ 17. DAILY VISUAL CHECK

ABOVEGROUND PIPING

SINGLE WALL PIPING 467

PRESSURIZED PIPING (Check all that apply):

☐ 1. ELECTRONIC LINE LEAK DETECTOR 3.0 GPH TEST WITH AUTO PUMP SHUT OFF FOR LEAK, SYSTEM FAILURE, AND SYSTEM DISCONNECTION + AUDIBLE AND VISUAL ALARMS.

☐ 2. MONTHLY 0.2 GPH TEST

☐ 3. ANNUAL INTEGRITY TEST (0.1GPH)

☐ 4. DAILY VISUAL CHECK

CONVENTIONAL SUCTION SYSTEMS (Check all that apply)

☐ 5. DAILY VISUAL MONITORING OF PIPING AND PUMPING SYSTEM

☐ 6. TRIENNIAL INTEGRITY TEST (0.1 GPH)

SAFE SUCTION SYSTEMS (NO VALVES IN BELOW GROUND PIPING):

☐ 7. SELF MONITORING

GRAVITY FLOW (Check all that apply):

☐ 8. DAILY VISUAL MONITORING

☐ 9. BIENNIAL INTEGRITY TEST (0.1 GPH)

SECONDARILY CONTAINED PIPING

PRESSURIZED PIPING (Check all that apply):

10. CONTINUOUS TURBINE SUMP SENSOR WITH AUDIBLE AND VISUAL ALARMS AND (Check one)

☐ a. AUTO PUMP SHUT OFF WHEN A LEAK OCCURS

☐ b. AUTO PUMP SHUT OFF FOR LEAKS, SYSTEM FAILURE AND SYSTEM DISCONNECTION

☐ c. NO AUTO PUMP SHUT OFF

☐ 11. AUTOMATIC LEAK DETECTOR

☐ 12. ANNUAL INTEGRITY TEST (0.1 GPH)

SUCTION/GRAVITY SYSTEM

☐ 13. CONTINUOUS SUMP SENSOR + AUDIBLE AND VISUAL ALARMS

EMERGENCY GENERATORS ONLY (Check all that apply)

☐ 14. CONTINUOUS SUMP SENSOR WITHOUT AUTO PUMP SHUT OFF + AUDIBLE AND VISUAL ALARMS

☐ 15. AUTOMATIC LINE LEAK DETECTOR (3.0 GPH TEST)

☐ 16. ANNUAL INTEGRITY TEST (0.1 GPH)

☐ 17. DAILY VISUAL CHECK

VIII. DISPENSER CONTAINMENT

DISPENSER CONTAINMENT

DATE INSTALLED 468

☐ 1. FLOAT MECHANISM THAT SHUTS OFF SHEAR VALVE

☐ 2. CONTINUOUS DISPENSER PAN SENSOR + AUDIBLE AND VISUAL ALARMS

☐ 3. CONTINUOUS DISPENSER PAN SENSOR WITH AUTO SHUT OFF FOR DISPENSER + AUDIBLE AND VISUAL ALARMS

☐ 4. DAILY VISUAL CHECK

☐ 5. TRENCH LINER / MONITORING

☐ 6. NONE 469

IX. OWNER/OPERATOR SIGNATURE

I certify that the information provided herein is true and accurate to the best of my knowledge.

SIGNATURE OF OWNER/OPERATOR: Loring Lynch

DATE: 11-09-04 470

NAME OF OWNER/OPERATOR (print): LORING LYNCH 471

TITLE OF OWNER/OPERATOR 472

Permit Number (Permit use only) 473 Permit Approved (For local use only) 474 Permit Expiration Date (For local use only) 475

APPENDIX C
LABORATORY DATA SHEETS &
CHAIN OF CUSTODY DOCUMENTS

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Jack Horner
E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050

Certificate ID: 41617 - 12/17/2004 3:09:18 PM

Order: 41617
Project Name: Loring Lynch
Project Number: 2398SC01

Date Collected: 12/10/2004
Date Received: 12/10/2004
P.O. Number: 2398SC01

Certificate of Analysis - Revision

Note: This is a revision of the original 12/16/2004 issue to include comment on the TPH analysis.

On December 10, 2004, samples were received under chain of custody for analysis. Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test	Method	Comments
Solid	8260Petroleum	EPA 8260B	
	Oil & Grease-IR	SM 5520 C	
	TPH as Gasoline - GCMS	GC-MS	
	TPH-Extractable	EPA 8015 MOD. (Extractable)	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Laurie Glantz-Murphy
Laboratory Director

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050
Attn: Jack Horner

Project Number: 2398SC01
Project Name: Loring Lynch
Date Received: 12/10/2004
P.O. Number: 2398SC01
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 41617-001 **Sample ID:** S-1 **Matrix:** Solid **Sample Date:** 12/10/2004 10:45 AM

Method: EPA 8015 MOD. (Extractable) / EPA 3545 / Pressurized Fluid Extraction, MeCl

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	9600		250	630	mg/Kg	12/13/2004	DS4479A	12/14/2004	DS4479A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	NR	41 - 137

*** Surrogate recovery not reportable due to dilution of the sample.

Analyzed by: Jhsiang
Reviewed by: LGLANTZ

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		5	25	µg/Kg	N/A	N/A	12/14/2004	SMS3041214
Toluene	ND		5	25	µg/Kg	N/A	N/A	12/14/2004	SMS3041214
Ethyl Benzene	ND		5	25	µg/Kg	N/A	N/A	12/14/2004	SMS3041214
Xylenes, Total	69		5	50	µg/Kg	N/A	N/A	12/14/2004	SMS3041214

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	102	75 - 125
Dibromofluoromethane	107	75 - 125
Toluene-d8	107	75 - 125

Analyzed by: BELA
Reviewed by: MTU

Method: GC-MS

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	4100		5	250	µg/Kg	N/A	N/A	12/14/2004	SMS3041214

Note: Not a gasoline pattern; volatile fraction of Diesel calculated as gasoine.

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	102	75 - 125
Dibromofluoromethane	107	75 - 125
Toluene-d8	107	75 - 125

Analyzed by: BELA
Reviewed by: MTU

Method: SM 5520 C

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease, Total	5900		20	500	mg/Kg	12/16/2004	SINO041216	12/16/2004	SOGIR041216

Analyzed by: Mfelix
Reviewed by: RLAZARO

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

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E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050
Attn: Jack Horner

Project Number: 2398SC01
Project Name: Loring Lynch
Date Received: 12/10/2004
P.O. Number: 2398SC01
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 41617-002 **Sample ID: Stock-1** **Matrix:** Solid **Sample Date:** 12/10/2004 10:50 AM

Method: EPA 8015 MOD. (Extractable) / EPA 3545 / Pressurized Fluid Extraction, MeCl

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	9200		250	630	mg/Kg	12/13/2004	DS4479A	12/14/2004	DS4479A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	NR	41 - 137

*** Surrogate recovery not reportable due to dilution of the sample.

Analyzed by: Jhsiang
Reviewed by: LGLANTZ

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		200	1000	µg/Kg	12/14/2004	PMS041214	12/15/2004	SMS3041214B
Toluene	ND		200	1000	µg/Kg	12/14/2004	PMS041214	12/15/2004	SMS3041214B
Ethyl Benzene	ND		200	1000	µg/Kg	12/14/2004	PMS041214	12/15/2004	SMS3041214B
Xylenes, Total	ND		200	2000	µg/Kg	12/14/2004	PMS041214	12/15/2004	SMS3041214B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	118	75 - 125
Dibromofluoromethane	103	75 - 125
Toluene-d8	109	75 - 125

Analyzed by: BELA
Reviewed by: MTU

Method: GC-MS

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	130000		200	10000	µg/Kg	12/14/2004	PMS041214	12/15/2004	SMS3041214B

Note: Not a gasoline pattern; volatile fraction of Diesel calculated as gasoine.

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	118	75 - 125
Dibromofluoromethane	103	75 - 125
Toluene-d8	109	75 - 125

Analyzed by: BELA
Reviewed by: MTU

Method: SM 5520 C

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease, Total	5700		20	500	mg/Kg	12/16/2004	SINO041216	12/16/2004	SOGIR041216

Analyzed by: Mfelix
Reviewed by: RLAZARO

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

Entech Analytical Labs, Inc.

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E2C, Inc.
382 Martin Avenue
Santa Clara, CA 95050
Attn: Jack Horner

Project Number: 2398SC01
Project Name: Loring Lynch
Date Received: 12/10/2004
P.O. Number: 2398SC01
Sampled By: Client

Certificate of Analysis - Data Report

Lab # : 41617-003 **Sample ID: Stock-2** **Matrix:** Solid **Sample Date:** 12/10/2004 10:55 AM

Method: EPA 8015 MOD. (Extractable) / EPA 3545 / Pressurized Fluid Extraction, MeCl

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	5.5		1	2.5	mg/Kg	12/13/2004	DS4479A	12/14/2004	DS4479A

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	99.3	41 - 137

Analyzed by: Jhsiang
Reviewed by: LGLANTZ

Method: EPA 8260B / EPA 5030B / Purge & Trap

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1	5	µg/Kg	N/A	N/A	12/14/2004	SMS3041214
Toluene	ND		1	5	µg/Kg	N/A	N/A	12/14/2004	SMS3041214
Ethyl Benzene	ND		1	5	µg/Kg	N/A	N/A	12/14/2004	SMS3041214
Xylenes, Total	ND		1	10	µg/Kg	N/A	N/A	12/14/2004	SMS3041214

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94.5	75 - 125
Dibromofluoromethane	113	75 - 125
Toluene-d8	107	75 - 125

Analyzed by: Bdhabalia
Reviewed by: MTU

Method: GC-MS

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1	50	µg/Kg	N/A	N/A	12/14/2004	SMS3041214

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	94.5	75 - 125
Dibromofluoromethane	113	75 - 125
Toluene-d8	107	75 - 125

Analyzed by: Bdhabalia
Reviewed by: MTU

Method: SM 5520 C

Parameter	Result	Flag	DF	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease, Total	ND		1	25	mg/Kg	12/16/2004	SINO041216	12/16/2004	SOGIR041216

Analyzed by: Mfelix
Reviewed by: RLAZARO

Detection Limit = Detection Limit for Reporting.
DF = Dilution and/or Prep Factor including sample volume adjustments.
ND = Not Detected at or above the Detection Limit.

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Quality Control - Method Blank
Solid

Prep Batch ID: DS4479A Validated by: LGLANTZ - 12/14/04 **QC Batch ID: DS4479A**

Prep Date: 12/13/2004 **Analysis Date: 12/13/2004**

Method Blank **Method: EPA 8015 MOD. (Extractable)**

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	2.5	mg/Kg

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	106	41 - 137

Quality Control - Laboratory Control Spike / Duplicate Results
Solid

Prep Batch ID: DS4479A Reviewed by: LGLANTZ - 12/14/04 **QC Batch ID: DS4479A**

Prep Date: 12/13/2004 **Analysis Date: 12/13/2004**

LCS **Method: EPA 8015 MOD. (Extractable)** **Conc. Units:** mg/Kg

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<0.7	50.0	50.9	LCS	12/13/2004	102			44 - 108

Surrogate	% Recovery	Control Limits
o-Terphenyl	118	41 - 137

LCSD **Method: EPA 8015 MOD. (Extractable)** **Conc. Units:** mg/Kg

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<0.7	50.0	49.4	LCSD	12/13/2004	98.8	3.0	30	44 - 108

Surrogate	% Recovery	Control Limits
o-Terphenyl	112	41 - 137

Quality Control - Matrix Spike / Duplicate Results
Solid

Prep Batch ID: DS4479A Reviewed by: LGLANTZ - 12/16/04 **QC Batch ID: DS4479A**

Prep Date: 12/13/2004 **Analysis Date: 12/13/2004**

Method EPA 8015 MOD. (Extractable) **Conc. Units: mg/Kg**

Parameter	Sample Result	Spike Amount	Spike Result	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
MS SampleNumber: 41638-001									
TPH as Diesel	ND	50	41.8	MS	12/13/2004	83.6			33 - 107
TPH as Motor Oil	ND	50	25.4	MS	12/13/2004	50.9			11 - 158
MSD SampleNumber: 41638-001									
TPH as Diesel	ND	50	39.6	MSD	12/13/2004	79.2	5.4	30	33 - 107
TPH as Motor Oil	ND	50	25.9	MSD	12/13/2004	51.8	1.8	30	11 - 158

Surrogate	% Recovery	Control Limits
o-Terphenyl	88.9	41 - 137
o-Terphenyl	86.4	41 - 137

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Quality Control - Method Blank

Solid

Validated by: MTU - 12/15/04

QC Batch ID: SMS3041214

Analysis Date: 12/14/2004

Method Blank **Method: EPA 8260B**

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	5	µg/Kg
Diisopropyl Ether	ND	1	5	µg/Kg
Ethyl Benzene	ND	1	5	µg/Kg
Ethyl-t-butyl Ether	ND	1	5	µg/Kg
Methyl-t-butyl Ether	ND	1	5	µg/Kg
tert-Amyl Methyl Ether	ND	1	5	µg/Kg
tert-Butanol (TBA)	ND	1	40	µg/Kg
Toluene	ND	1	5	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**104**	75 - 125
Dibromofluoromethane	**109**	75 - 125
Toluene-d8	**112**	75 - 125

Quality Control - Laboratory Control Spike / Duplicate Results

Solid

Reviewed by: MTU - 12/15/04

QC Batch ID: SMS3041214

Analysis Date: 12/14/2004

LCS **Method: EPA 8260B** **Conc. Units: µg/Kg**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.2	40.0	43.5	LCS	12/14/2004	**109**			70 - 130
Methyl-t-butyl Ether	<0.5	40.0	32.0	LCS	12/14/2004	**80.0**			70 - 130
Toluene	<0.5	40.0	42.6	LCS	12/14/2004	**107**			70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**113**	75 - 125
Dibromofluoromethane	**107**	75 - 125
Toluene-d8	**110**	75 - 125

LCSD **Method: EPA 8260B** **Conc. Units: µg/Kg**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.2	40.0	47.3	LCSD	12/14/2004	**118**	**8.4**	30	70 - 130
Methyl-t-butyl Ether	<0.5	40.0	36.2	LCSD	12/14/2004	**90.5**	**12.4**	30	70 - 130
Toluene	<0.5	40.0	48.2	LCSD	12/14/2004	**120**	**12.2**	30	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**113**	75 - 125
Dibromofluoromethane	**114**	75 - 125
Toluene-d8	**117**	75 - 125

Entech Analytical Labs, Inc.

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Quality Control - Matrix Spike / Duplicate Results
Solid

Reviewed by: MTU - 12/15/04

QC Batch ID: SMS3041214

Analysis Date: 12/14/2004

Method EPA 8260B

Conc. Units: µg/Kg

Parameter	Sample Result	Spike Amount	Spike Result	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
MS SampleNumber: 41617-003									
Benzene	ND	40	38.4	MS	12/14/2004	**96.0**			65 - 135
Toluene	ND	40	36.6	MS	12/14/2004	**91.5**			65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**101**	75 - 125
Dibromofluoromethane	**110**	75 - 125
Toluene-d8	**111**	75 - 125

MSD SampleNumber: 41617-003									
Benzene	ND	40	40.7	MSD	12/14/2004	**102**	**5.9**	30	65 - 135
Toluene	ND	40	39.1	MSD	12/14/2004	**97.9**	**6.8**	30	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**105**	75 - 125
Dibromofluoromethane	**112**	75 - 125
Toluene-d8	**109**	75 - 125

Entech Analytical Labs, Inc.

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Quality Control - Method Blank

Solid

Prep Batch ID: PMS041214 Validated by: MTU - 12/15/04 **QC Batch ID: SMS3041214B**

Prep Date: 12/14/2004 **Analysis Date: 12/14/2004**

Method Blank1 **Method: EPA 8260B**

Parameter	Result	DF	PQLR	Units
1,2-Dibromoethane (EDB)	0.0	50	250	µg/Kg
1,2-Dichloroethane	0.0	50	250	µg/Kg
Benzene	ND	50	250	µg/Kg
Diisopropyl Ether	ND	50	250	µg/Kg
Ethyl Benzene	ND	50	250	µg/Kg
Ethyl-t-butyl Ether	ND	50	250	µg/Kg
Methyl-t-butyl Ether	ND	50	250	µg/Kg
tert-Amyl Methyl Ether	ND	50	250	µg/Kg
tert-Butanol (TBA)	ND	50	2000	µg/Kg
Toluene	ND	50	250	µg/Kg
Xylenes, Total	ND	50	500	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**97.6**	75 - 125
Dibromofluoromethane	**99.7**	75 - 125
Toluene-d8	**110**	75 - 125

Quality Control - Laboratory Control Spike / Duplicate Results

Solid

Prep Batch ID: PMS041214 Reviewed by: MTU - 12/15/04 **QC Batch ID: SMS3041214B**

Prep Date: 12/14/2004 **Analysis Date: 12/14/2004**

LCS1 **Method: EPA 8260B** **Conc. Units: µg/Kg**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.2	2000	2380	LCS1	12/14/2004	**119**			70 - 130
Methyl-t-butyl Ether	<0.5	2000	1810	LCS1	12/14/2004	**90.5**			70 - 130
Toluene	<0.5	2000	2330	LCS1	12/14/2004	**117**			70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**95**	75 - 125
Dibromofluoromethane	**111**	75 - 125
Toluene-d8	**103**	75 - 125

LCSD1 **Method: EPA 8260B** **Conc. Units: µg/Kg**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.2	2000	2420	LCSD1	12/14/2004	**121**	**1.9**	30	70 - 130
Methyl-t-butyl Ether	<0.5	2000	1900	LCSD1	12/14/2004	**94.9**	**4.7**	30	70 - 130
Toluene	<0.5	2000	2420	LCSD1	12/14/2004	**121**	**3.7**	30	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**95.2**	75 - 125
Dibromofluoromethane	**108**	75 - 125
Toluene-d8	**103**	75 - 125

Entech Analytical Labs, Inc.

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Quality Control - Method Blank

Solid

Validated by: MTU - 12/15/04

QC Batch ID: SMS3041214

Analysis Date: 12/14/2004

Method Blank **Method: GC-MS**

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	104	75 - 125
Dibromofluoromethane	109	75 - 125
Toluene-d8	112	75 - 125

Quality Control - Laboratory Control Spike / Duplicate Results

Solid

Reviewed by: MTU - 12/15/04

QC Batch ID: SMS3041214

Analysis Date: 12/14/2004

LCS **Method: GC-MS** **Conc. Units: µg/KG**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<9	250	239	LCS	12/14/2004	95.6			70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	99.5	75 - 125
Dibromofluoromethane	111	75 - 125
Toluene-d8	109	75 - 125

LCSD **Method: GC-MS** **Conc. Units: µg/KG**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<9	250	231	LCSD	12/14/2004	92.2	3.6	30	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	102	75 - 125
Dibromofluoromethane	109	75 - 125
Toluene-d8	109	75 - 125

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Quality Control - Method Blank

Solid

Prep Batch ID: PMS041214 Validated by: MTU - 12/15/04 **QC Batch ID: SMS3041214B**

Prep Date: 12/14/2004 **Analysis Date: 12/14/2004**

Method Blank1 **Method: GC-MS**

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	50	2500	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	97.6	75 - 125
Dibromofluoromethane	99.7	75 - 125
Toluene-d8	110	75 - 125

Quality Control - Laboratory Control Spike / Duplicate Results

Solid

Prep Batch ID: PMS041214 Reviewed by: MTU - 12/15/04 **QC Batch ID: SMS3041214B**

Prep Date: 12/14/2004 **Analysis Date: 12/14/2004**

LCS1 **Method: EPA 8260B** **Conc. Units: µg/Kg**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.2	2000	2380	LCS1	12/14/2004	119			70 - 130
Methyl-t-butyl Ether	<0.5	2000	1810	LCS1	12/14/2004	90.5			70 - 130
Toluene	<0.5	2000	2330	LCS1	12/14/2004	117			70 - 130

LCSD1 **Method: EPA 8260B** **Conc. Units: µg/Kg**

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.2	2000	2420	LCSD1	12/14/2004	121	1.9	30	70 - 130
Methyl-t-butyl Ether	<0.5	2000	1900	LCSD1	12/14/2004	94.9	4.7	30	70 - 130
Toluene	<0.5	2000	2420	LCSD1	12/14/2004	121	3.7	30	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Quality Control - Method Blank

Solid

Prep Batch ID: SINO041216 Validated by: RLAZARO - 12/16/04 **QC Batch ID: SOGIR041216**

Prep Date: 12/16/2004 **Analysis Date: 12/16/2004**

Method Blank **Method: SM 5520 C**

Parameter	Result	DF	PQLR	Units
Oil and Grease, Total	ND	1	25	mg/Kg

Quality Control - Laboratory Control Spike / Duplicate Results

Solid

Prep Batch ID: SINO041216 Reviewed by: RLAZARO - 12/16/04 **QC Batch ID: SOGIR041216**

Prep Date: 12/16/2004 **Analysis Date: 12/16/2004**

LCS **Method: SM 5520 C** **Conc. Units:** mg/Kg

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Oil and Grease, Total	<25	217	200	LCS	12/16/2004	92.3			75 - 125

LCSD **Method: SM 5520 C** **Conc. Units:** mg/Kg

Parameter	Blank (MDL)	Spike Amt	SpikeResult	QC Type	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Oil and Grease, Total	<25	217	203	LCSD	12/16/2004	93.7	1.5	30	75 - 125

E2C, Inc.

Page 1 of 1

Chain of Custody Record

382 Martin Ave, Santa Clara, CA 95050; 408 - 327 - 5700, FAX: 327-5707

Job Name/Location: Loring Lynch / 36 Winchester Dr. Atherton

Project No: 2398C01 | For EDF/ Global ID: NA

Sampler's Name: Forrest Cook

Send Results To: Forrest Cook

Analysis Requested

Sample ID	Date	Time	Matrix	# of Con	Con Type	Prsv	BTEX (EPA 8021)	TPH Gasoline (8015M)	TPH Diesel (8015M)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	MTBE (EPA 8260B)	BTEX (8260B)	Full Scan 8260B	TPH Gasoline by GC/MS	T.O.G.				Comments
S-1	12.10.04	10:45	Soil	1				X	X				X			X				41617-001
Stock-1	↓	10:50	↓	↓				X	X				X			X				-002
Stock-2	↓	10:55	↓	↓				X	X				X			X				-003

Containers:
B = Bottle; J = Jar
V = Vial; T = Tube
G = Glass; P=Plastic
M = Metal; A =Amber
Matrix:
SO = Soil / Solid;
W = Water; A = Air
L = Liquid; O = Oil
P = Product;
V=Vapor; SL=Sludge
GS = Soil Gas

NOTES:

Turn-Around Time: Standard____ 5-Day X 72-Hour____ 48-Hour____ 24-Hour____ Other:_____

Relinquished By: [signature] Date: 12/10/04 | Relinquished By: Date:

Received By: J Machado Date: 12/10/04 1600 | Received By: Date:

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\1\DATA\M3041214\M3121409.D
Acq On : 14 Dec 2004 1:40 pm
Sample : 41617-003S5.00
Misc : 8260PET/GAS
MS Integration Params: RTEINT.P
Quant Time: Dec 14 14:13 2004

Vial: 8
Operator: BELA
Inst : VMS-03
Multiplr: 1.00

Quant Results File: M3S30930.RES

Quant Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Initial Calibration
DataAcq Meth : 8260S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	12.34	168	85371	100.00	ng	-0.06
39) 1,4-Difluorobenzene	13.90	114	147131	100.00	ng	-0.08
54) Chlorobenzene-d5	18.51	117	144890	100.00	ng	-0.09
80) 1,4-Dichlorobenzene-d4	22.09	152	74236	100.00	ng	-0.08

System Monitoring Compounds						
20) MTBE-d3	9.71	76	1481	0.00	ng	0.15
Spiked Amount 100.000	Range 56 - 139		Recovery = 0.00%#			
35) Dibromofluoromethane	12.49	111	55231	113.14	ng	-0.07
Spiked Amount 100.000	Range 57 - 139		Recovery = 113.14%			
37) 1,2-Dichloroethane-d4	13.28	65	52646	107.01	ng	-0.06
Spiked Amount 100.000	Range 65 - 135		Recovery = 107.01%			
55) Toluene-d8	16.23	98	195425	106.77	ng	-0.09
Spiked Amount 100.000	Range 65 - 135		Recovery = 106.77%			
77) 4-Bromofluorobenzene	20.21	95	70889	94.50	ng	-0.08
Spiked Amount 100.000	Range 65 - 135		Recovery = 94.50%			

Target Compounds						Qvalue
19) Carbon Disulfide	9.71	76	1481	0.85	ng #	75
43) Benzene	13.54	78	1948m	0.95	ng	
56) Toluene	16.35	92	3871	2.83	ng	92
62) Tetrachloroethene	17.39	164	5167	9.02	ng	98
63) Dibromochloromethane	17.38	129	5026	7.25	ng #	11
83) 1,3,5-Trimethylbenzene	20.66	105	1126	0.58	ng #	29
88) 1,2,4-Trimethylbenzene	21.28	105	2204m	1.11	ng	
99) Naphthalene	26.68	128	10325m	5.35	ng	
101) TPH-Gasoline	15.00	TIC	144923m	32.08	ng	

MW 12/15/04

(#) = qualifier out of range (m) = manual integration

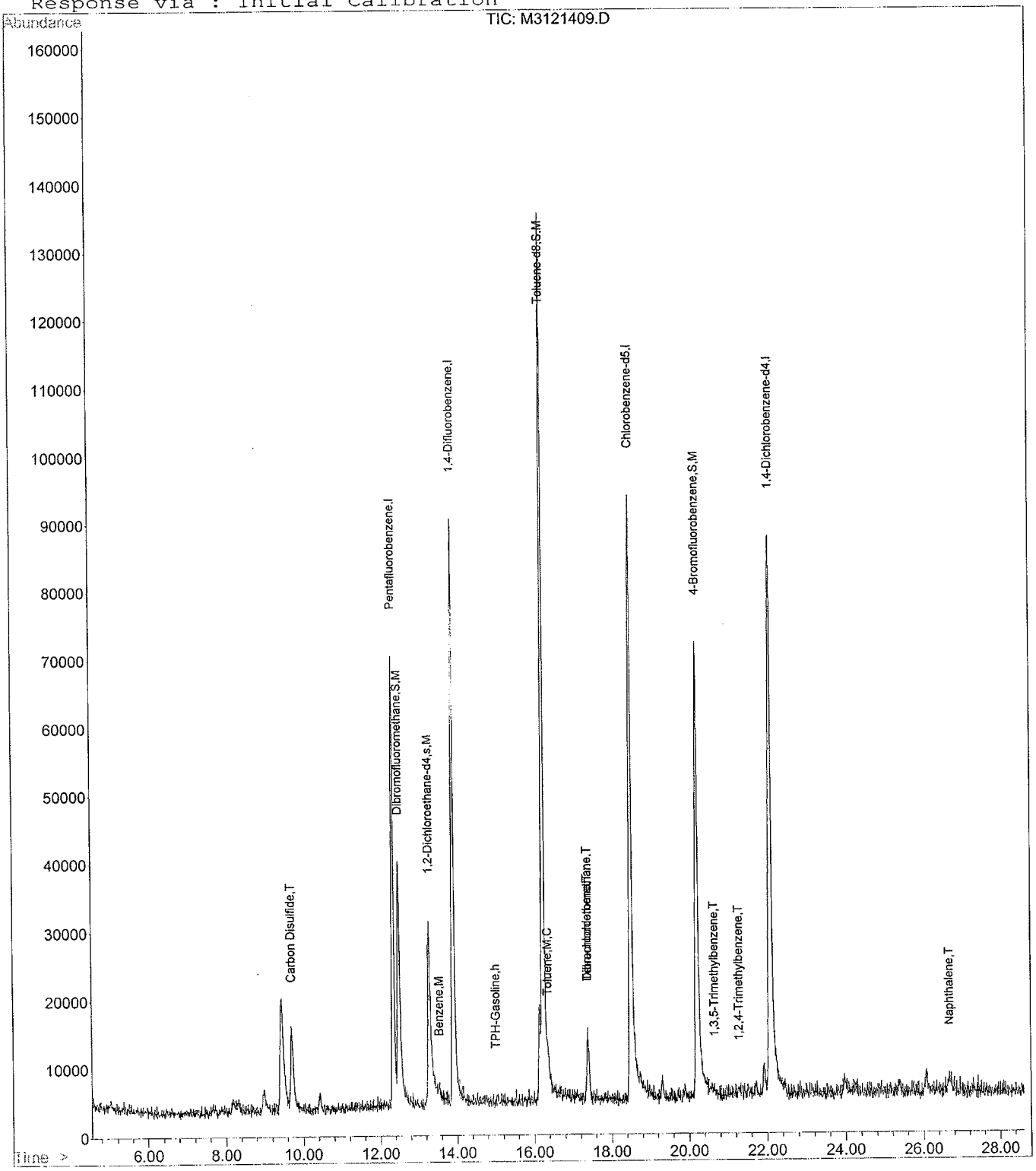
Quantitation Report

Data File : G:\HPCHEM\1\DATA\M3041214\M3121409.D
Acq On : 14 Dec 2004 1:40 pm
Sample : 41617-003S5.00
Misc : 8260PET/GAS
MS Integration Params: RTEINT.P
Quant Time: Dec 14 14:13 2004

Vial: 8
Operator: BELA
Inst : VMS-03
Multiplr: 1.00

Quant Results File: M3S30930.RES

Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Initial Calibration



QCBatchID	SampleNumber	Test	Param	Result	Units	Dilution	TestDate	Analysis	NG AMT
SMS3041214B	41617-002	8260Petroleum	Methyl-t-butyl Ether	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	Dibromofluoromethane	103.4	%	200	12/15/04	BELA	103.4
SMS3041214B	41617-002	8260Petroleum	Toluene-d8	108.5	%	200	12/15/04	BELA	108.5
SMS3041214B	41617-002	8260Petroleum	4-Bromofluorobenzene	117.9	%	200	12/15/04	BELA	117.9
SMS3041214B	41617-002	8260Petroleum	Diisopropyl Ether	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	Ethyl-t-butyl Ether	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	Methyl-t-butyl Ether	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	tert-Amyl Methyl Ether	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	tert-Butanol (TBA)	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	Dibromofluoromethane	103.4	%	200	12/15/04	BELA	103.4
SMS3041214B	41617-002	8260Petroleum	Toluene-d8	108.5	%	200	12/15/04	BELA	108.5
SMS3041214B	41617-002	8260Petroleum	4-Bromofluorobenzene	117.9	%	200	12/15/04	BELA	117.9
SMS3041214B	41617-002	8260Petroleum	1,2-Dibromoethane (EDB)	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	1,2-Dichloroethane	ND	µg/Kg	200	12/15/04	BELA	0.000
SMS3041214B	41617-002	8260Petroleum	Dibromofluoromethane	103.4	%	200	12/15/04	BELA	103.4
SMS3041214B	41617-002	8260Petroleum	Toluene-d8	108.5	%	200	12/15/04	BELA	108.5
SMS3041214B	41617-002	8260Petroleum	4-Bromofluorobenzene	117.9	%	200	12/15/04	BELA	117.9
SMS3041214B	41617-002	8260Petroleum	Benzene	ND	µg/Kg	200	12/15/04	BELA	2.508
SMS3041214B	41617-002	8260Petroleum	Ethyl Benzene	ND	µg/Kg	200	12/15/04	BELA	6.793
SMS3041214B	41617-002	8260Petroleum	Toluene	ND	µg/Kg	200	12/15/04	BELA	20.278
SMS3041214B	41617-002	8260Petroleum	Xylene, m+p	1760.752	µg/Kg	200	12/15/04	BELA	44.019
SMS3041214B	41617-002	8260Petroleum	Xylene, o	ND	µg/Kg	200	12/15/04	BELA	19.380
SMS3041214B	41617-002	8260Petroleum	Xylenes, Total	1760.752	µg/Kg	200	12/15/04	BELA	63.399
SMS3041214B	41617-002	8260Petroleum	Dibromofluoromethane	103.4	%	200	12/15/04	BELA	103.4
SMS3041214B	41617-002	8260Petroleum	Toluene-d8	108.5	%	200	12/15/04	BELA	108.5
SMS3041214B	41617-002	8260Petroleum	4-Bromofluorobenzene	117.9	%	200	12/15/04	BELA	117.9
SMS3041214B	41617-002	TPH as Gasoline - G	TPH as Gasoline	126156.956	µg/Kg	200	12/15/04	BELA	3153.924
SMS3041214B	41617-002	TPH as Gasoline - G	Dibromofluoromethane	103.4	%	200	12/15/04	BELA	103.447
SMS3041214B	41617-002	TPH as Gasoline - G	Toluene-d8	108.5	%	200	12/15/04	BELA	108.491
SMS3041214B	41617-002	TPH as Gasoline - G	4-Bromofluorobenzene	117.9	%	200	12/15/04	BELA	117.870

Laboratory ID	**41617-002S.025**
Run Number	M3121432.D
Misc. Inf.	8260PET/GAS
vol MEOH ml	**.025**
Wt.meoh (ml):	5
Wt. of Soil (grams)	5

Surrogates	Recovery	Amount
Pentafluorobenzene(i.s.)	121%	ICLVL5
MTBE-d3 (Surro)	NOT USED	
Dibromofluoromethane (Su	**103.4%**	103.45
1,2-Dichloroethane-d4 (Surro	NOT USED	
1,4-Difluorobenzene(i.s.)	124.2%	ICLVL5
Chlorobenzene-d5 (i.s.)	121.0%	ICLVL5
Toluene-d8 (Surro)	**108.5%**	108.49
4-Bromofluorobenzene (Su	**117.9%**	117.87
1,4-Dichlorobenzene-d4 (i.s.)	120.46%	24.09

100ul of the extract is a 10x dil from the 1 g purge

MS 12/15/04

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\1\DATA\M3041214\M3121432.D
Acq On : 15 Dec 2004 3:26 am
Sample : 41617-002S.025
Misc : 8260PET/GAS
MS Integration Params: RTEINT.P
Quant Time: Dec 15 10:29 2004

Vial: 19
Operator: BELA
Inst : VMS-03
Multiplr: 1.00
Quant Results File: M3S30930.RES

Quant Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Initial Calibration
DataAcq Meth : 8260S

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	12.34	168	94494	100.00 ng	-0.05
39) 1,4-Difluorobenzene	13.92	114	167459	100.00 ng	-0.07
54) Chlorobenzene-d5	18.52	117	160158	100.00 ng	-0.08
80) 1,4-Dichlorobenzene-d4	22.10	152	87844	100.00 ng	-0.07

System Monitoring Compounds					
20) MTBE-d3	0.00	76	0	0.00 ng	
Spiked Amount 100.000	Range 56 - 139		Recovery = 0.00%#		
35) Dibromofluoromethane	12.50	111	55894	103.45 ng	-0.06
Spiked Amount 100.000	Range 57 - 139		Recovery = 103.45%		
37) 1,2-Dichloroethane-d4	13.29	65	19353	35.54 ng	-0.05
Spiked Amount 100.000	Range 65 - 135		Recovery = 35.54%#		
55) Toluene-d8	16.25	98	219491	108.49 ng	-0.07
Spiked Amount 100.000	Range 65 - 135		Recovery = 108.49%		
77) 4-Bromofluorobenzene	20.22	95	97740	117.87 ng	-0.07
Spiked Amount 100.000	Range 65 - 135		Recovery = 117.87%		

Target Compounds						Qvalue
32) Methacrylonitrile	13.55	41	4332	6.49 ng	#	48
43) Benzene	13.55	78	5830	2.51 ng		100
44) n-Heptane	13.57	43	9933	9.59 ng	#	82
48) Methylcyclohexane	14.77	98	10132	17.91 ng		76
52) 4-Methyl-2-Pentanone (MIBK	15.54	43	11132	12.30 ng	#	45
56) Toluene	16.37	92	30673	20.28 ng		95
59) 1,1,2-Trichloroethane	16.68	83	1651	2.94 ng	#	1
60) 2-Hexanone	16.75	43	7406	11.34 ng	#	27
68) Ethyl Benzene	18.63	91	19775	6.79 ng		92
69) Xylene, m+p	18.74	106	48115m	44.02 ng		
70) Xylene, o	19.37	106	21430	19.38 ng		91
75) Isopropylbenzene	19.87	105	7895	2.66 ng	#	49
76) 1,1,2,2-Tetrachloroethane	20.08	83	1382	1.29 ng	#	26
79) trans-1,4-Dichloro-2-buten	20.57	89	1258	2.05 ng	#	1
81) n-Propylbenzene	20.45	91	20893	6.01 ng		91
83) 1,3,5-Trimethylbenzene	20.66	105	53704	23.37 ng		93
84) 2-Chlorotoluene	20.65	91	4887	2.26 ng	#	45
85) 4-Chlorotoluene	20.65	91	4887	2.40 ng	#	41
86) tert-Butylbenzene	21.30	119	16827	7.32 ng	#	83
88) 1,2,4-Trimethylbenzene	21.29	105	138044	58.85 ng		99
89) sec-Butylbenzene	21.59	105	9263	2.90 ng	#	91
90) p-Isopropyltoluene	21.76	119	12901	5.06 ng	#	68
94) n-Butylbenzene	22.44	91	16868	7.19 ng	#	43
99) Naphthalene	26.68	128	29266	12.82 ng		100
101) TPH-Gasoline	22.09	TIC	16861348m	3153.92 ng		

(#) = qualifier out of range (m) = manual integration

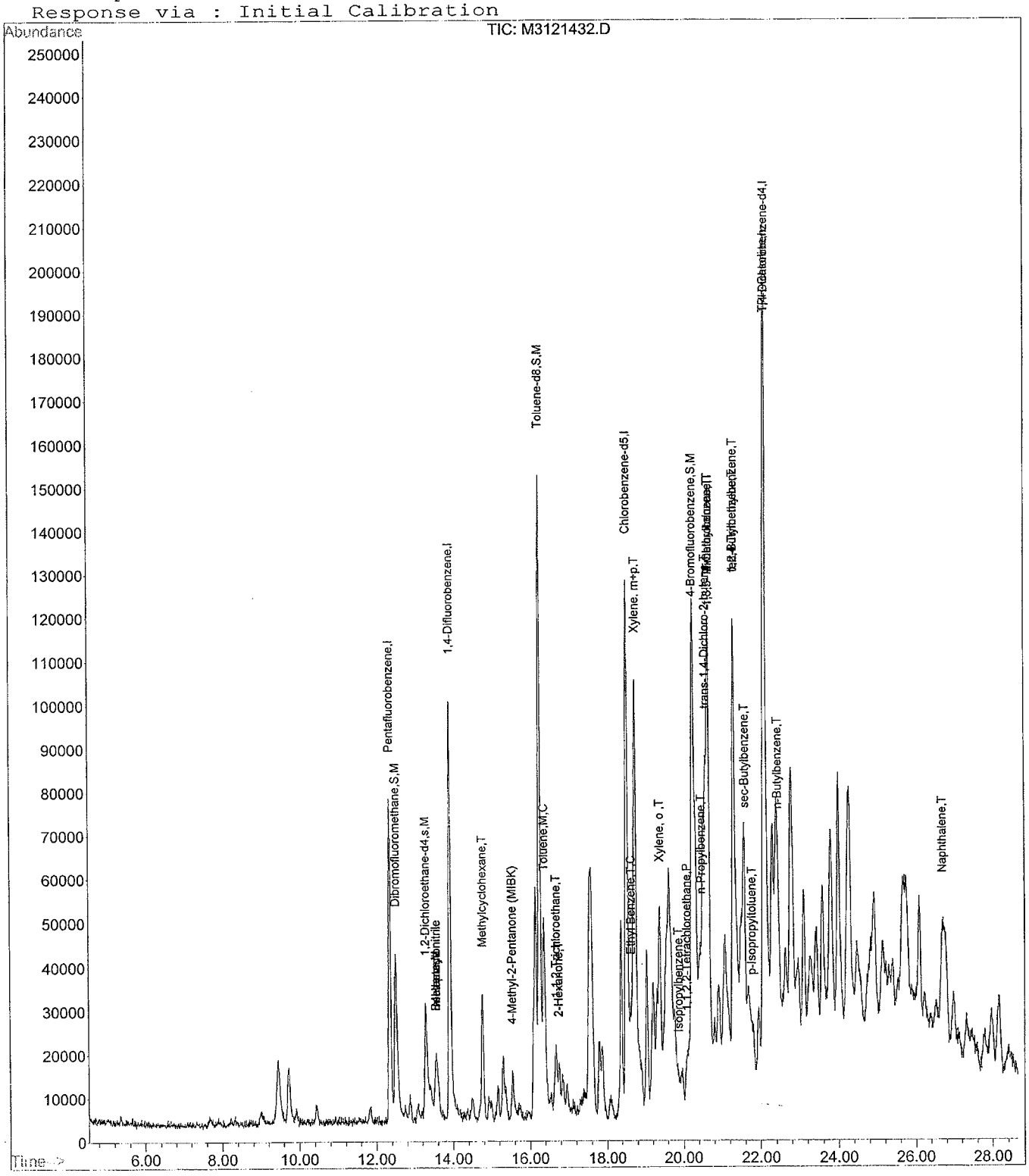
Quantitation Report

Data File : G:\HPCHEM\1\DATA\M3041214\M3121432.D
Acq On : 15 Dec 2004 3:26 am
Sample : 41617-002S.025
Misc : 8260PET/GAS
MS Integration Params: RTEINT.P
Quant Time: Dec 15 10:29 2004

Vial: 19
Operator: BELA
Inst : VMS-03
Multiplr: 1.00

Quant Results File: M3S30930.RES

Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Initial Calibration

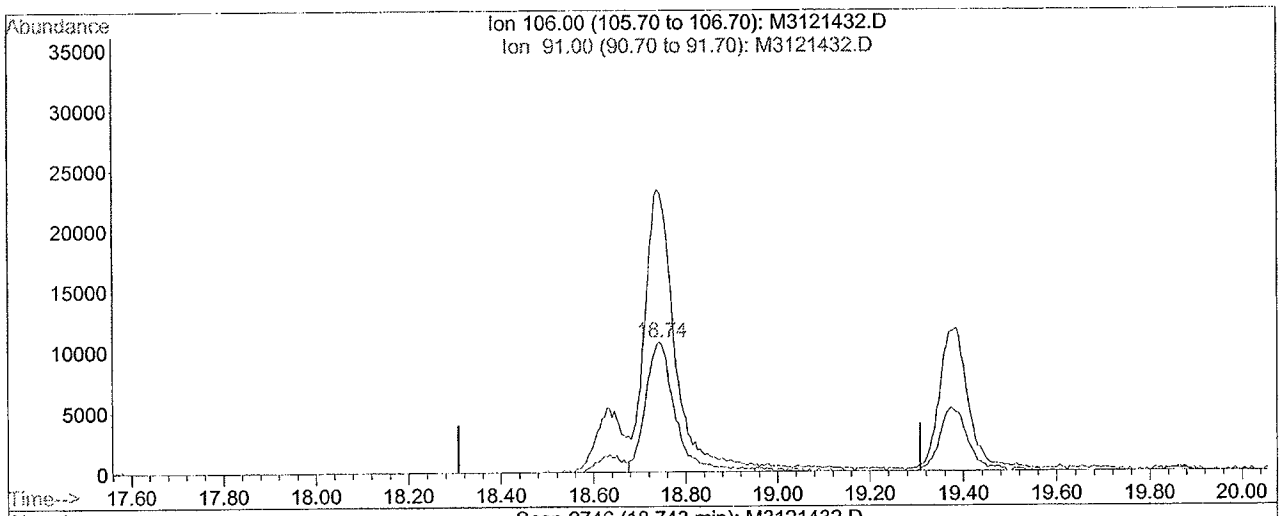


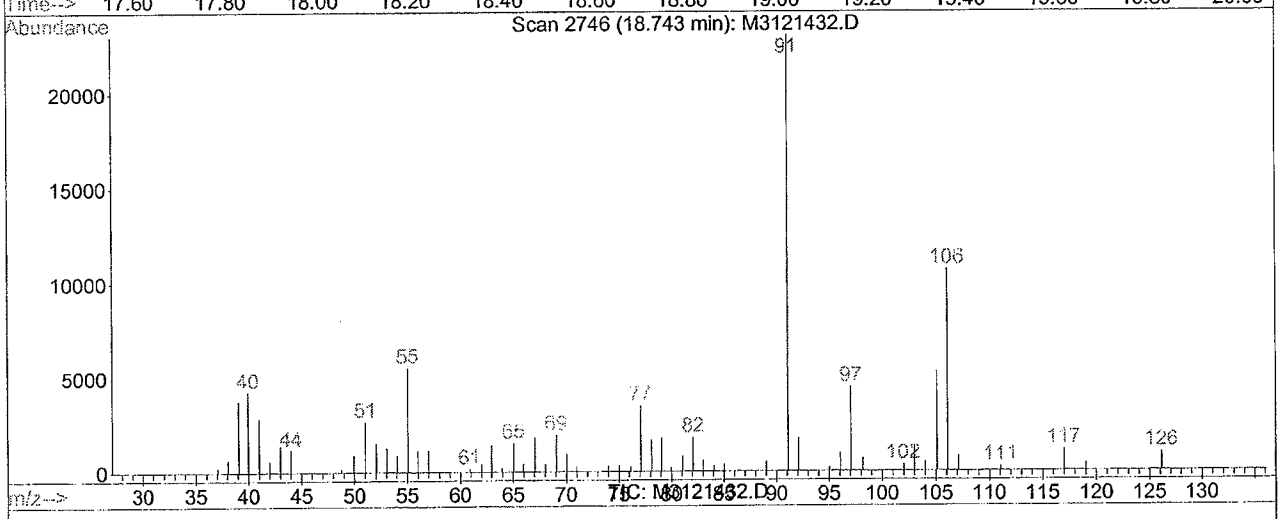
Quantitation Report (Qedit)

Data File : G:\HPCHEM\1\DATA\M3041214\M3121432.D
Acq On : 15 Dec 2004 3:26 am
Sample : 41617-002S.025
Misc : 8260PET/GAS
MS Integration Params: RTEINT.P
Quant Time: Dec 15 10:28 2004

Vial: 19
Operator: BELA
Inst : VMS-03
Multiplr: 1.00
Quant Results File: temp.res

Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Multiple Level Calibration





(69) Xylene, m+p (T)

18.74min 44.02ng m

response 48115

Ion	Exp%	Act%
106.00	100	100
91.00	206.70	194.94
0.00	0.00	0.00
0.00	0.00	0.00

QCBatchID	SampleNumb	Test	Param	Result	Units	Dilution	TestDate	Analysisl	NG AMT
SMS3041214	41617-001	8260Petroleum	Methyl-t-butyl Ether	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	Dibromofluoromethane	107.0	%	5	12/14/04	BELA	107.0
SMS3041214	41617-001	8260Petroleum	Toluene-d8	107.3	%	5	12/14/04	BELA	107.3
SMS3041214	41617-001	8260Petroleum	4-Bromofluorobenzene	102.5	%	5	12/14/04	BELA	102.5
SMS3041214	41617-001	8260Petroleum	Diisopropyl Ether	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	Ethyl-t-butyl Ether	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	Methyl-t-butyl Ether	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	tert-Amyl Methyl Ether	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	tert-Butanol (TBA)	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	Dibromofluoromethane	107.0	%	5	12/14/04	BELA	107.0
SMS3041214	41617-001	8260Petroleum	Toluene-d8	107.3	%	5	12/14/04	BELA	107.3
SMS3041214	41617-001	8260Petroleum	4-Bromofluorobenzene	102.5	%	5	12/14/04	BELA	102.5
SMS3041214	41617-001	8260Petroleum	1,2-Dibromoethane (EDB)	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	1,2-Dichloroethane	ND	µg/Kg	5	12/14/04	BELA	0.000
SMS3041214	41617-001	8260Petroleum	Dibromofluoromethane	107.0	%	5	12/14/04	BELA	107.0
SMS3041214	41617-001	8260Petroleum	Toluene-d8	107.3	%	5	12/14/04	BELA	107.3
SMS3041214	41617-001	8260Petroleum	4-Bromofluorobenzene	102.5	%	5	12/14/04	BELA	102.5
SMS3041214	41617-001	8260Petroleum	Benzene	ND	µg/Kg	5	12/14/04	BELA	0.876
SMS3041214	41617-001	8260Petroleum	Ethyl Benzene	ND	µg/Kg	5	12/14/04	BELA	2.256
SMS3041214	41617-001	8260Petroleum	Toluene	ND	µg/Kg	5	12/14/04	BELA	4.171
SMS3041214	41617-001	8260Petroleum	Xylene, m+p	ND	µg/Kg	5	12/14/04	BELA	9.456
SMS3041214	41617-001	8260Petroleum	Xylene, o	68.532	µg/Kg	5	12/14/04	BELA	68.532
SMS3041214	41617-001	8260Petroleum	Xylenes, Total	68.532	µg/Kg	5	12/14/04	BELA	77.988
SMS3041214	41617-001	8260Petroleum	Dibromofluoromethane	107.0	%	5	12/14/04	BELA	107.0
SMS3041214	41617-001	8260Petroleum	Toluene-d8	107.3	%	5	12/14/04	BELA	107.3
SMS3041214	41617-001	8260Petroleum	4-Bromofluorobenzene	102.5	%	5	12/14/04	BELA	102.5
SMS3041214	41617-001	TPH as Gasoline - G	TPH as Gasoline	4129.012	µg/Kg	5	12/14/04	BELA	4129.012
SMS3041214	41617-001	TPH as Gasoline - G	Dibromofluoromethane	107.0	%	5	12/14/04	BELA	107.038
SMS3041214	41617-001	TPH as Gasoline - G	Toluene-d8	107.3	%	5	12/14/04	BELA	107.256
SMS3041214	41617-001	TPH as Gasoline - G	4-Bromofluorobenzene	102.5	%	5	12/14/04	BELA	102.475

Laboratory ID	**41617-001S1.00**
Run Number	M3121410.D
Misc. Inf.	8260PET/GAS
Wt. of Soil (grams)	1.00

Surrogates	Recovery	Amount
Pentafluorobenzene(i.s.)	117%	ICLVL5
MTBE-d3 (Surro)	NOT USED	
Dibromofluoromethane (Su	**107.0%**	107.04
1,2-Dichloroethane-d4 (Surro	NOT USED	
1,4-Difluorobenzene(i.s.)	115.6%	ICLVL5
Chlorobenzene-d5 (i.s.)	111.6%	ICLVL5
Toluene-d8 (Surro)	**107.3%**	107.26
4-Bromofluorobenzene (Su	**102.5%**	102.47
1,4-Dichlorobenzene-d4 (i.s.)	109.35%	21.87

Not GAS

ws 12/15/04

Quantitation Report (QT Reviewed)

Data File : G:\HPCHEM\1\DATA\M3041214\M3121410.D
Acq On : 14 Dec 2004 2:17 pm
Sample : 41617-001S1.00
Misc : 8260PET/GAS
MS Integration Params: RTEINT.P
Quant Time: Dec 14 14:56 2004

Vial: 9
Operator: BELA
Inst : VMS-03
Multiplr: 1.00
Quant Results File: M3S30930.RES

Quant Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Initial Calibration
DataAcq Meth : 8260S

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	12.33	168	91039	100.00	ng	-0.06
39) 1,4-Difluorobenzene	13.91	114	155828	100.00	ng	-0.08
54) Chlorobenzene-d5	18.51	117	147730	100.00	ng	-0.09
80) 1,4-Dichlorobenzene-d4	22.08	152	79742	100.00	ng	-0.09
System Monitoring Compounds						
20) MTBE-d3	9.72	76	2395	0.00	ng	0.15
Spiked Amount 100.000	Range 56 - 139		Recovery = 0.00%#			
35) Dibromofluoromethane	12.49	111	55720	107.04	ng	-0.07
Spiked Amount 100.000	Range 57 - 139		Recovery = 107.04%			
37) 1,2-Dichloroethane-d4	13.29	65	47801	91.12	ng	-0.05
Spiked Amount 100.000	Range 65 - 135		Recovery = 91.12%			
55) Toluene-d8	16.24	98	200154	107.26	ng	-0.08
Spiked Amount 100.000	Range 65 - 135		Recovery = 107.26%			
77) 4-Bromofluorobenzene	20.21	95	78380	102.47	ng	-0.08
Spiked Amount 100.000	Range 65 - 135		Recovery = 102.47%			

Target Compounds						Qvalue
10) Acetone	8.15	58	3936m	52.57	ng	
19) Carbon Disulfide	9.72	76	2395	1.29	ng #	75
32) Methacrylonitrile	13.57	41	1381	2.15	ng #	48
43) Benzene	13.54	78	1895m	0.88	ng	
44) n-Heptane	13.56	43	2645	2.75	ng #	36
48) Methylcyclohexane	14.75	98	8045	15.28	ng	75
52) 4-Methyl-2-Pentanone (MIBK	15.54	43	5657	6.72	ng #	45
56) Toluene	16.36	92	5819	4.17	ng	98
59) 1,1,2-Trichloroethane	16.73	83	1512	2.92	ng #	1
60) 2-Hexanone	16.75	43	8237	13.67	ng #	26
66) Chlorobenzene	18.50	112	1135	0.72	ng #	17
68) Ethyl Benzene	18.62	91	6059	2.26	ng #	44
69) Xylene, m+p	18.74	106	9534	9.46	ng	81
70) Xylene, o	19.36	106	69899	68.53	ng	94
71) Styrene	19.36	104	2157	1.12	ng #	1
74) Cyclohexanone	19.88	98	1595	15.48	ng #	1
75) Isopropylbenzene	19.86	105	20066	7.32	ng	95
76) 1,1,2,2-Tetrachloroethane	19.92	83	5416	5.48	ng #	26
78) 1,2,3-Trichloropropane	20.28	77	1415	4.06	ng #	1
79) trans-1,4-Dichloro-2-buten	20.64	89	2346	4.14	ng #	1
81) n-Propylbenzene	20.45	91	12103	3.84	ng #	87
83) 1,3,5-Trimethylbenzene	20.65	105	237826	114.01	ng	88
84) 2-Chlorotoluene	20.65	91	22466	11.46	ng #	45
85) 4-Chlorotoluene	20.65	91	22466	12.14	ng #	41
86) tert-Butylbenzene	21.28	119	11520	5.52	ng #	87
88) 1,2,4-Trimethylbenzene	21.28	105	71379	33.52	ng	96
89) sec-Butylbenzene	21.56	105	20026	6.91	ng #	88
90) p-Isopropyltoluene	21.74	119	24135	10.43	ng #	84
93) Benzyl Chloride	22.37	126	1025	3.71	ng	1
94) n-Butylbenzene	22.37	91	21990	10.32	ng #	1
99) Naphthalene	26.68	128	30970	14.95	ng	100
100) 1,2,3-Trichlorobenzene	27.24	180	1965	3.01	ng #	12
101) TPH-Gasoline	22.08	TIC	20038362m	4129.01	ng	

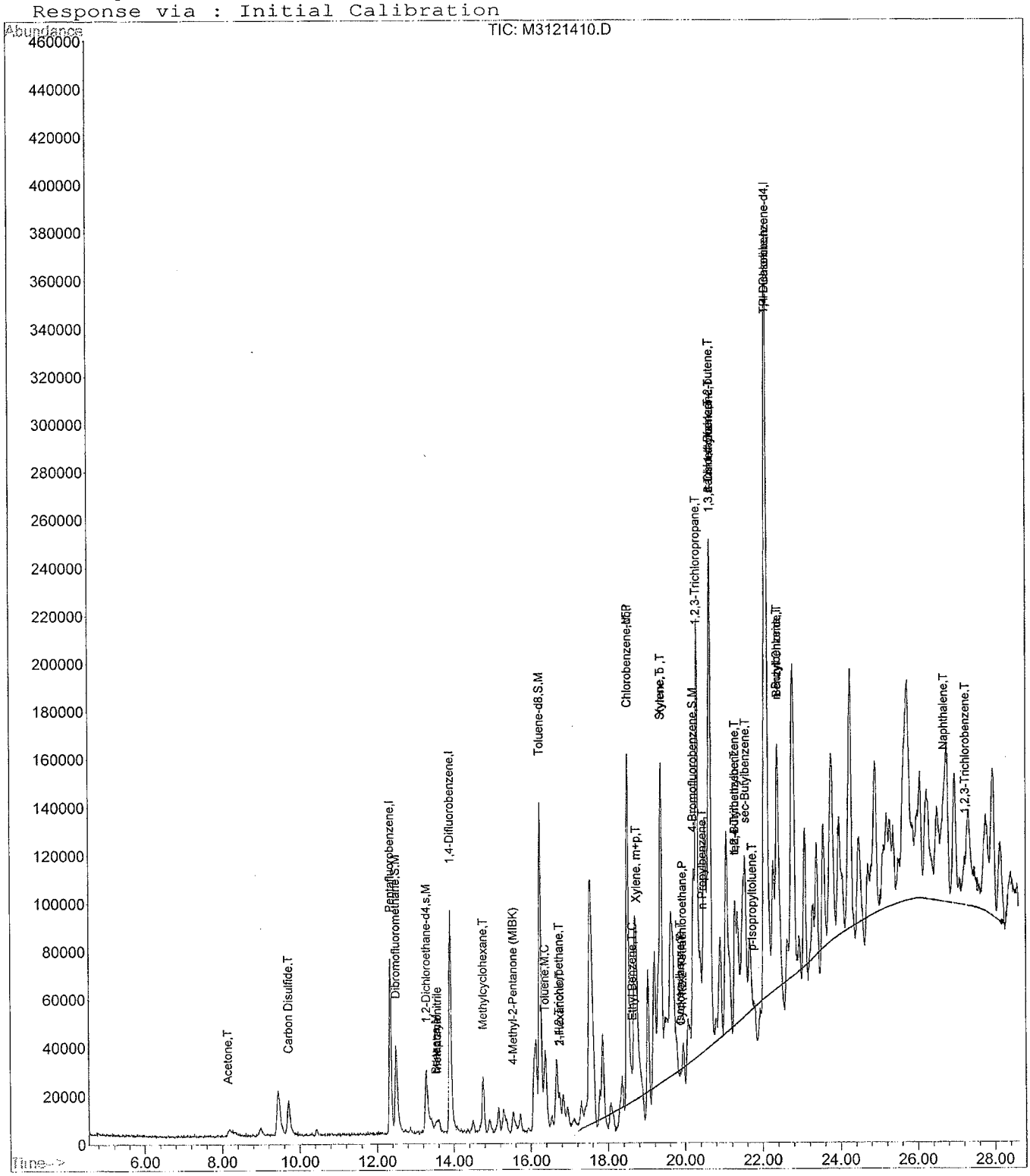
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : G:\HPCHEM\1\DATA\M3041214\M3121410.D
Acq On : 14 Dec 2004 2:17 pm
Sample : 41617-001S1.00
Misc : 8260PET/GAS
MS Integration Params: RTEINT.P
Quant Time: Dec 14 14:56 2004

Vial: 9
Operator: BELA
Inst : VMS-03
Multiplr: 1.00
Quant Results File: M3S30930.RES

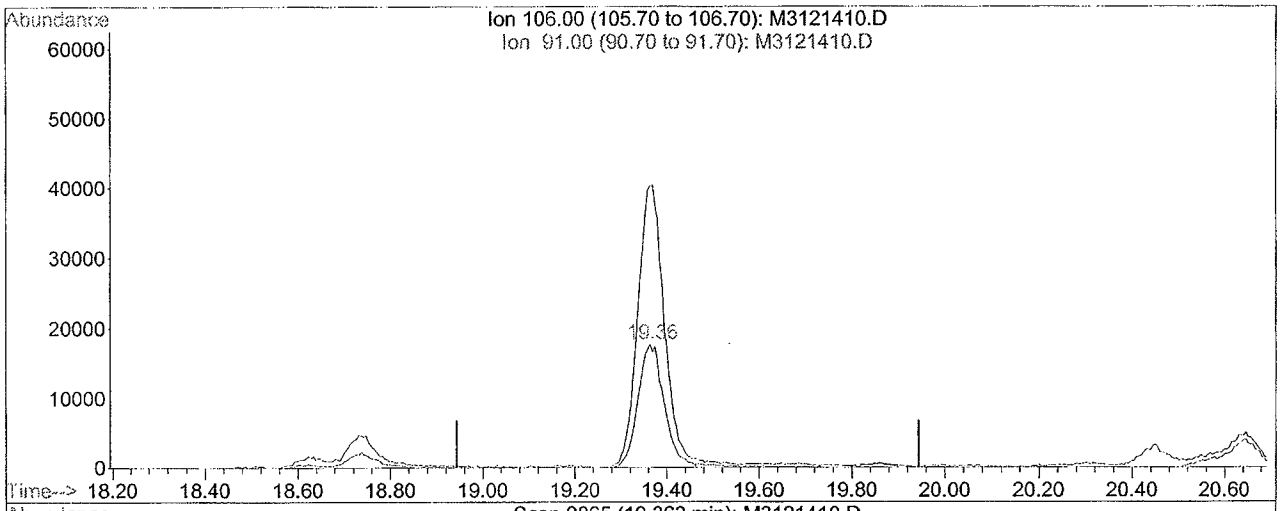
Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Initial Calibration

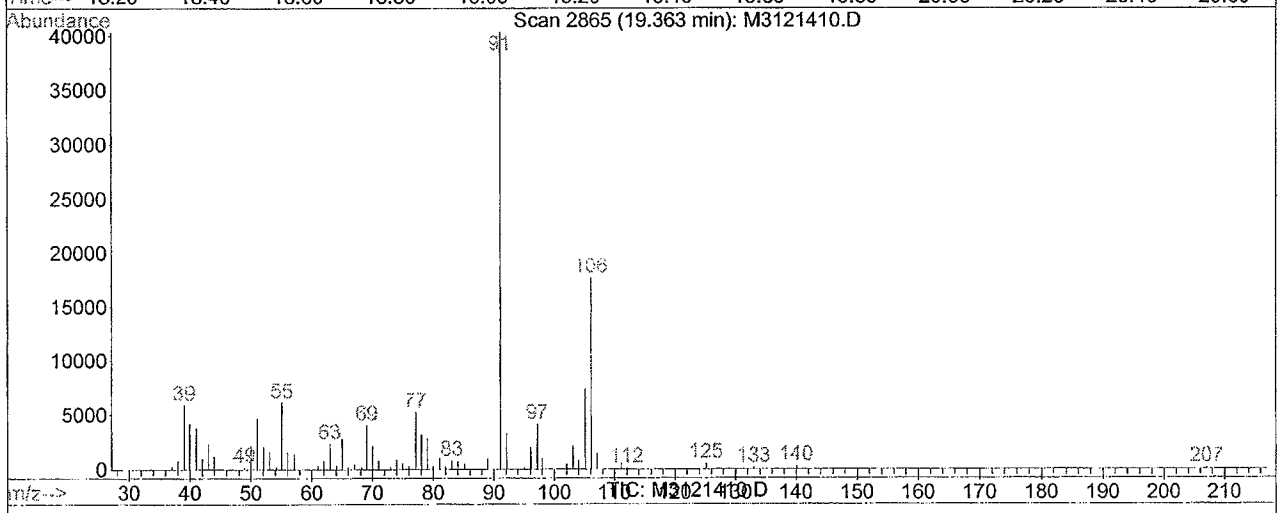


Quantitation Report (Qedit)

Data File : G:\HPCHEM\1\DATA\M3041214\M3121410.D Vial: 9
Acq On : 14 Dec 2004 2:17 pm Operator: BELA
Sample : 41617-001S1.00 Inst : VMS-03
Misc : 8260PET/GAS Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Dec 14 14:56 2004 Quant Results File: temp.res

Method : H:\HPCHEM\1\METHODS\M3S30930.M (RTE Integrator)
Title : MS #3 EPA 8260B
Last Update : Tue Oct 26 15:22:53 2004
Response via : Multiple Level Calibration





(70) Xylene, o (T)

19.36min 68.53ng

response 69899

Ion	Exp%	Act%
106.00	100	100
91.00	223.50	233.36
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\D#2\DATA\D2-1214\D2121411.D Vial: 11
Acq On : 12-14-04 12:05:01 PM Operator: JH
Sample : 41617-01@S1:250 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 14 12:58 2004 Quant Results File: D2111004.RES

Quant Method : L:\HPCHEM\2\METHODS\D2111004.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Wed Dec 01 14:27:53 2004
Response via : Initial Calibration
DataAcq Meth : D2111402.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S,M o-Terphenyl	8.66	284538	0.244	ng	m
Spiked Amount 75.000		Recovery =	0.33%		
Target Compounds					
2) H Kerosene	0.00	0	N.D.	ng	
3) H Mineral Spirits	0.00	0	N.D.	ng	
4) H,M Diesel	7.50	826302232	771.853	ng	
5) H Motor Oil	14.00	7361749	7.169	ng	

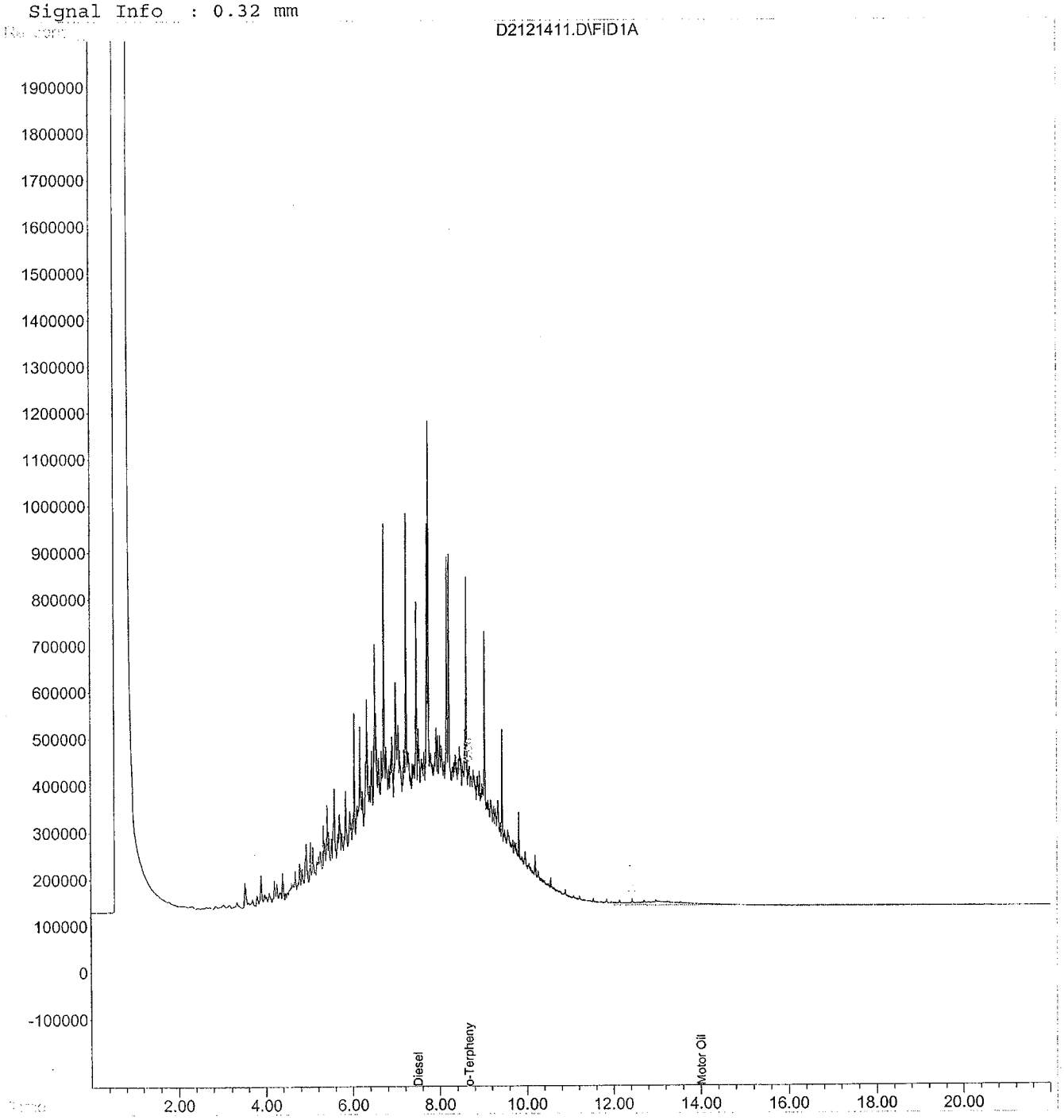
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\D#2\DATA\D2-1214\D2121411.D Vial: 11
Acq On : 12-14-04 12:05:01 PM Operator: JH
Sample : 41617-01@S1:250 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 14 12:58 2004 Quant Results File: D2111004.RES

Quant Method : L:\HPCHEM\2\METHODS\D2111004.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Wed Dec 01 14:27:53 2004
Response via : Single Level Calibration
DataAcq Meth : D2111402.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\D#2\DATA\D2-1214\D2121412.D Vial: 12
Acq On : 12-14-04 12:33:33 PM Operator: JH
Sample : 41617-02@S1:250 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 14 12:59 2004 Quant Results File: D2111004.RES

Quant Method : L:\HPCHEM\2\METHODS\D2111004.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Wed Dec 01 14:27:53 2004
Response via : Initial Calibration
DataAcq Meth : D2111402.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
1) S,M o-Terphenyl	8.67	679915	0.583	ng	m
Spiked Amount 75.000		Recovery =	0.78%		
Target Compounds					
2) H Kerosene	0.00	0	N.D.	ng	
3) H Mineral Spirits	0.00	0	N.D.	ng	
4) H,M Diesel	7.50	790847472	738.735	ng	
5) H Motor Oil	14.00	1827949	1.780	ng	

(f)=RT Delta > 1/2 Window (m)=manual int.

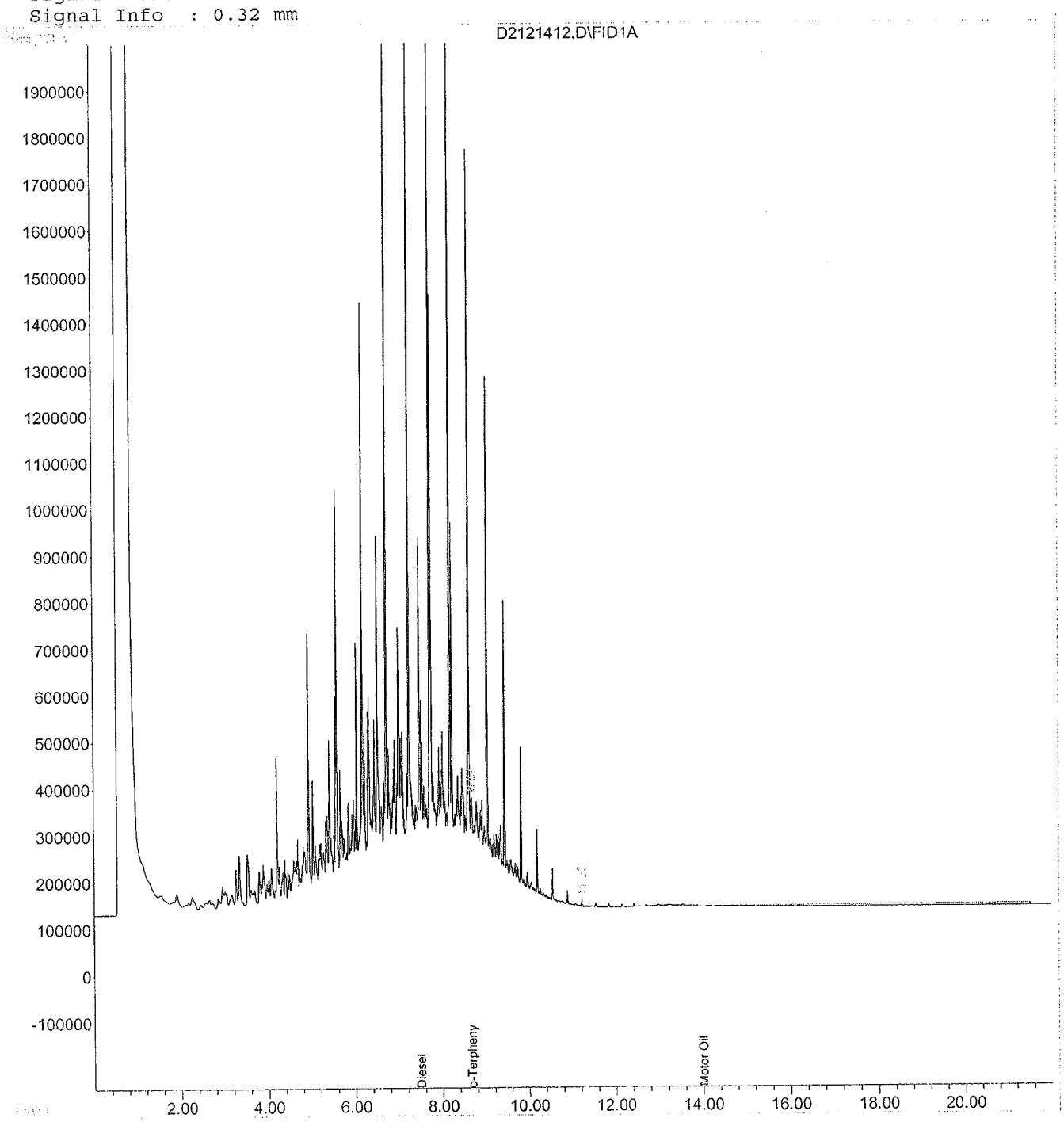
Quantitation Report

Data File : C:\HPCHEM\D#2\DATA\D2-1214\D2121412.D
Acq On : 12-14-04 12:33:33 PM
Sample : 41617-02@S1:250
Misc :
IntFile : AUTOINT1.E
Quant Time: Dec 14 12:59 2004 Quant Results File: D2111004.RES

Vial: 12
Operator: JH
Inst : HP G1530A
Multiplr: 1.00

Quant Method : L:\HPCHEM\2\METHODS\D2111004.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Wed Dec 01 14:27:53 2004
Response via : Single Level Calibration
DataAcq Meth : D2111402.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\D#2\DATA\D2-1214\D2121413.D Vial: 13
Acq On : 12-14-04 1:02:12 PM Operator: JH
Sample : 41617-03@S1:1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 14 13:58 2004 Quant Results File: D2111004.RES

Quant Method : L:\HPCHEM\2\METHODS\D2111004.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Wed Dec 01 14:27:53 2004
Response via : Initial Calibration
DataAcq Meth : D2111402.M

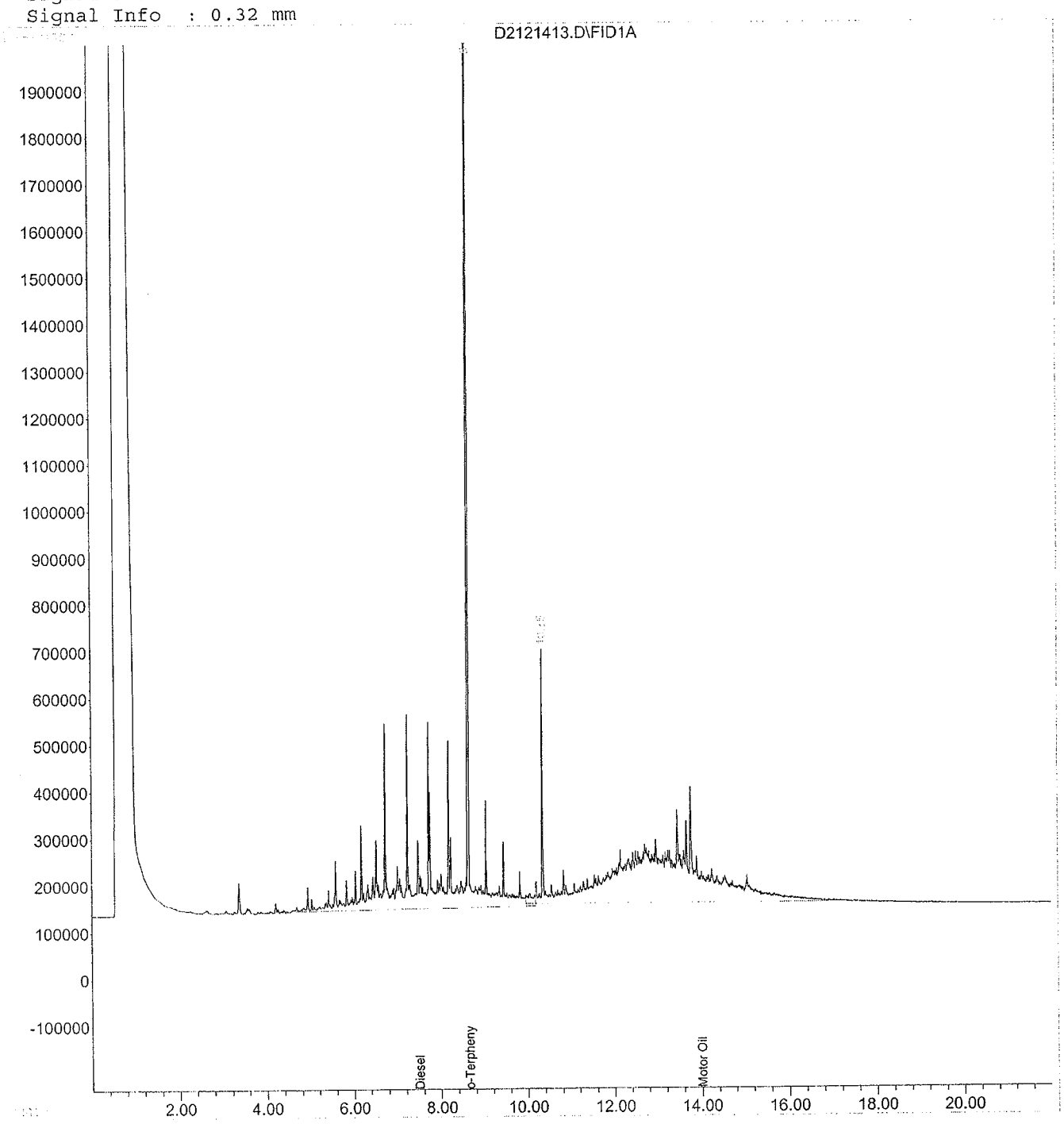
Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
1) S,M o-Terphenyl	8.64	86862161	74.435	ng
Spiked Amount 75.000		Recovery =	99.25%	
Target Compounds				
2) H Kerosene	0.00	0	N.D.	ng
3) H Mineral Spirits	0.00	0	N.D.	ng
4) H,M Diesel	7.50	116866499	109.166	ng
5) H Motor Oil	14.00	189060851	184.121	ng

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File : C:\HPCHEM\D#2\DATA\D2-1214\D2121413.D Vial: 13
Acq On : 12-14-04 1:02:12 PM Operator: JH
Sample : 41617-03@S1:1 Inst : HP G1530A
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Dec 14 13:58 2004 Quant Results File: D2111004.RES

Quant Method : L:\HPCHEM\2\METHODS\D2111004.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Wed Dec 01 14:27:53 2004
Response via : Single Level Calibration
DataAcq Meth : D2111402.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm