Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

GROUNDWATER MONITORING REPORT
THOMPSON & THOMPSON FENCE CO.
2584 GRANT AVENUE
SAN LORENZO, CALIFORNIA

PREPARED FOR:
Thompson & Thompson Fence Co.
511 23rd Avenue
Oakland, California 94606

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
1956 Webster Street, Suite 400
Oakland, California 94612

October 11, 2006
Project No. 401157002

Ninyo & Moore

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Mr. Gary Thompson
Thompson & Thompson Fence Co.
511 23rd Avenue
Oakland, California 94606

Subject: Groundwater Monitoring Report, Thompson & Thompson Fence Co., 2584 Grant Avenue, San Lorenzo, California.

Dear Mr. Thompson:

Ninyo & Moore is pleased to present this report summarizing groundwater monitoring activities at Thompson & Thompson Fence Co. (site), located in San Lorenzo, California. The purpose of our study was to evaluate groundwater contamination and establish local hydraulic gradient, depth to groundwater, and direction of groundwater flow for the site. Conclusions and recommendations regarding the status of site groundwater contamination are discussed in this report.

We appreciate the opportunity to be of service to Thompson & Thompson Fence Co. on this project. If you have any questions or comments regarding this report, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Laura E. Osteen
Senior Staff Environmental Scientist

Professional Geologist
Kristopher M. Larson
No. 8059
State of California

Kris M. Larson, PG
Senior Project Environmental Geologist

LEO/KML/mll

Distribution: (2) Addressee

TABLE OF CONTENTS

Page

Tables

Figures

Appendices

1. INTRODUCTION AND SCOPE OF SERVICES

This report summarizes the results of the groundwater monitoring activities conducted on July 31, 2006, at Thompson & Thompson Fence Company, located in San Lorenzo, California (Figure 1). Our scope of services includes: 1) preparation of a site safety plan; 2) measurement of the depth to static groundwater at selected wells; 3) purging of a minimum of three well volumes into properly labeled reconditioned 55-gallon drums; 4) collection and chemical analysis of groundwater samples; and 5) preparation of this report documenting our field activities and findings.

2. SITE INFORMATION AND BACKGROUND

One 1,000-gallon underground storage tank (UST) containing gasoline was removed in November 1992 by Paradiso Construction Company (Paradiso, 1993). The UST was located in the center of the property on the north side of the office and shop area (Figure 1). Subsequent to the UST removal, confirmation soil samples were collected at the bottom of each end of the former UST excavation pit at approximately 8.5 feet below ground surface (bgs). Purgeable hydrocarbons were reported in confirmation samples collected, ranging from 960 milligrams per kilograms (mg/kg) to 2,000 mg/kg. Benzene, ranging from 13 mg/kg to 38 mg/kg, toluene between 38 mg/kg and 120 mg/kg, ethylbenzene between 15 mg/kg and 36 mg/kg, and total xylenes between 79 mg/kg and 190 mg/kg were also reported in soil samples. Lead was also reported in these soil samples between 7.4 mg/kg and 11 mg/kg.

Groundwater sampling was performed during the preliminary site assessment in March 1996 (Leyton & Associates, 1996). Three soil borings were drilled to 20 feet bgs and three temporary wells were installed (TW-1, TW-2 and TW-3) in March 1996. Analytical results for groundwater samples collected from TW-1 included: 28,000 milligrams per liter (µg/L) total petroleum hydrocarbons as gasoline (TPH-G), 700 µg/L benzene, and 830 µg/L for ethylbenzene. Methyl tert-butyl ether (MTBE) was reported below laboratory reporting limits. Analytical results for TW-2 included: 13,000 µg/L TPH-G, 410 µg/L benzene, and 440 µg/L ethylbenzene. MTBE was reported below laboratory reporting limits. Analytical results for TW-3 were reported below

laboratory reporting limits for TPH-G, benzene, ethlybenzene and MTBE. The temporary wells (TW-1, TW-2, and TW-3) were turned into permanent groundwater monitoring wells (MW-1, MW-2, and MW-3) for the May 1996 sampling event. MW-1 is located northwest, MW-2 is located southwest, and MW-3 is located east of the former UST location (Figure 2). A summary of the groundwater elevations and analytical laboratory results for our July 31, 2006 sampling and previous sampling events is provided in Tables 1 and 2.

Ninyo & Moore performed groundwater monitoring on September 6, 2005. Analytical results for groundwater samples collected included concentrations of TPH-G from wells MW-1 and MW-2 reported at 2,300 µg/L and 2,100 µg/L, respectively, and benzene reported in groundwater samples collected from wells MW-1, MW-2 and MW-3 at 470 µg/L, 350 µg/L, and 0.58 µg/L respectively. Toluene was reported in a groundwater sample collected from wells MW-1, MW-2 and MW-3 at 7.4 µg/L, 4.9 µg/L, and 1.6 µg/L. Ethyl benzene was reported in groundwater samples collected from wells MW-1 and MW-2 at concentrations of 8.7 µg/L and 6.8 µg/L respectively. Total xylenes was reported in groundwater collected from wells MW-1 at 4.6 µg/L, MW-2 at 3.8 µg/L and MW-3 at 0.86 µg/L. MTBE was reported in wells MW-1 at 54 µg/L and MW-2 at 22 µg/L. Quarterly groundwater monitoring was performed sporadically between 1996 through 1999. To our knowledge, no groundwater monitoring occurred between May 1999 and our September 2005, sampling event.

3. GROUNDWATER MONITORING ACTIVITIES

3.1. Groundwater Elevation and Hydraulic Gradient

Representatives from Ninyo & Moore measured depth to static groundwater in the three on-site groundwater-monitoring wells on July 31, 2006. Static groundwater levels were measured using a Solinst water level probe. The probe was decontaminated prior to each well using a Liquinox/distilled (DI) water wash and a DI water rinse. Groundwater elevation at MW-1 was calculated at 2.95 feet mean sea level (MSL), MW-2 at 2.85 feet MSL, and MW-3 at 2.98 feet MSL. Based on groundwater data collected during this round of

monitoring, the inferred direction of groundwater flow beneath the site is to the southwest with a hydraulic gradient of 0.005 feet per foot (Figure 2). A summary of the current and previous depth-to-groundwater measurements is presented in Table 1.

3.2. Groundwater Sampling and Observations

Using an electric pump for each well, a minimum of three well casing volumes of groundwater was purged from each of the three on-site wells prior to the collection of groundwater samples. The wells were allowed to recover to at least 80 percent of their pre-purging static groundwater levels prior to sampling. Groundwater parameters, including pH, temperature, and electrical conductivity were measured during well purging. Additionally, characteristics of the water (color, turbidity, odor, sheen) were noted on the field data sheets included in Appendix A.

Subsequent to purging, samples were collected using a new disposable PVC bottom-discharging bailer for each monitoring well. The samples were transferred from the bailer to the appropriate sample containers, labeled, and placed in a cooler containing ice at 4 degrees Celsius under chain-of-custody protocol. The samples were transferred for analysis to Curtis and Tompkins (C&T) Ltd., a State of California-certified analytical laboratory, in Berkeley, California. Purged and decontamination water generated during sampling activities were transferred into a properly labeled, reconditioned 55-gallon drum. The drum was left on-site in a secured storage area to be maintained by the site owner. The drum will be used for purge and decontamination water generated from future groundwater monitoring events with eventual proper disposal at a properly permitted facility.

3.3. Groundwater Monitoring Well Sample Analytical Results

Samples were analyzed for TPH-G, using method EPA 8015M, and volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE, using EPA Method 8260B. Table 2 presents historical laboratory results for groundwater monitoring, and results of groundwater samples collected on July 31, 2006.

Copies of the analytical laboratory reports and chain-of-custody documents are included in Appendix B.

Analytical results for groundwater samples collected on July 31, 2006 included concentrations of TPH-G from wells MW-1 and MW-2 reported at 3,500 µg/L and 3,100 µg/L, respectively, and benzene reported in groundwater samples collected from wells MW-1 and MW-2 at 900 µg/L and 170 µg/L respectively. Toluene was reported in a groundwater sample collected from wells MW-1 and MW-2 at concentrations of 4.7 µg/L and 8.9 µg/L. Ethyl benzene was reported in groundwater samples collected from wells MW-1 and MW-2 at concentrations of 13 µg/L and 40 µg/L respectively. Total xylenes was reported in groundwater collected from wells MW-1 at 6.5 µg/L and MW-2 at 51 µg/L. MTBE was reported in wells MW-1 at 42 µg/L and MW-2 at 12 µg/L, respectively. Analytical results for groundwater samples collected from MW-3 were below laboratory reporting limits for TPH-G, BTEX and MTBE.

Laboratory QA/QC samples, including Laboratory Control Samples (LCS), Matrix Spike (MS) and Matrix Spike Duplicates (MSD) and Surrogates were within Recovery Control Limits (RCLs). No laboratory qualifiers were associated with analytical results. A case narrative included in the laboratory analytical report prepared by C & T (Appendix B) indicated that no problems were encountered during constituent analysis.

4. SUMMARY AND CONCLUSIONS

Groundwater flow direction was calculated to the southwest with a gradient of 0.005 foot/foot. Groundwater flow direction has been reported toward the north, west and southwest in previous sampling events.

Groundwater samples collected during the July 2006 groundwater monitoring event indicated changes in groundwater chemical constituents' concentrations since the last groundwater-monitoring event in September 2005. TPH-G concentrations increased from 2,300 µg/L in September 2005 to 3,500 µg/L in July 2006 in monitoring well MW-1. Additionally, benzene

concentration increased from 470 µg/L to 900 µg/L, ethyl benzene concentration increased from 8.7 µg/L to 13 µg/L and total xylene concentration increased from 4.6 µg/L to 6.5 µg/L in MW-1. Toluene concentrations decreased from 7.4 µg/L to 4.7µg/L and MTBE concentrations also decreased from 54 µg/L to 42 µg/L in MW-1.

TPH-G concentrations also increased in MW-2 from 2,100 µg/L in September 2005 to 3,100 µg/L in July 2006. Toluene concentration increased from 4.9 µg/L to 8.9 µg/L, ethyl benzene concentration increased from 6.8 µg/L to 40 µg/L and total xylene concentration increased from 3.8 µg/L to 51 µg/L in well MW-2. Benzene concentrations decreased from 350 µg/L in September 2005 to 170 µg/L in July 2006 in well MW-2. MTBE concentrations also decreased from 22 µg/L to 12 µg/L in MW-2.

Analytical results for groundwater samples collected from MW-3 were below laboratory reporting limits. In the previous sampling event in September 2005 benzene, toluene, and total xylenes had concentrations of 0.58µg/L, 1.6 µg/L, and 0.86 µg/L, respectively.

TPH-G, benzene, and MTBE concentrations in MW-1 and MW-2 were above California Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for Commercial Use Properties Where Groundwater is a Current or Potential Source of Drinking Water (RWQCB, 2005) (Table 2) during this monitoring event. In MW-2, ethyl benzene and total xylene concentrations were also above the RWQCB ESLs. Monitoring well MW-3 has historically shown either no reported constituents or very low constituent concentrations below ESLs for TPH-G, BTEX and MTBE.

The period of time elapsed since the removal of the UST in 1992 has most likely contributed to natural attenuation in the soil and groundwater. Currently TPH-G, benzene, and MTBE groundwater concentrations are above regulatory ESLs in wells MW-1 and MW-2, located northwest and southwest of the former UST area. Ethyl benzene and total xylene concentration in MW-2 were also above the regulatory ESLs this sampling event.

5. RECOMMENDATIONS

It is our experience with similar UST sites that the RWQCB will require additional site monitoring. In order to expedite the regulatory closure of the site, additional soil and groundwater investigation should be conducted to evaluate the potential for existing source contamination and the lateral migration of groundwater contamination on site. Quarterly groundwater monitoring should also continue at the site.

6. LIMITATIONS

The field investigation, laboratory testing, and groundwater analyses presented in this report have been conducted in general accordance with current engineering practice and the standard of care exercised by reputable environmental consultants performing similar tasks in the area. No other warranty, expressed or implied, is made regarding the summary, conclusions, and recommendations presented in this report. There is no investigation detailed enough to reveal every groundwater condition. Variations may exist and conditions not observed or described in this report may be encountered at a later time. Uncertainties relative to groundwater conditions can be reduced through additional groundwater sampling. Additional groundwater investigation will be performed upon request.

Ninyo & Moore's summary, conclusions, and recommendations regarding environmental considerations, as presented in this report, are based on a limited groundwater assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and groundwater conditions will exist beyond the points explored in this investigation.

The summary, conclusions, and recommendations contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of certain chemical or physical constituents in samples collected from the subject site. The testing

and analyses have been conducted by an independent laboratory that is accredited by the U.S. Environmental Protection Agency (EPA) or certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

This report is intended for preliminary design purposes only and may not provide sufficient data to prepare an accurate bid by some contractors. This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Our summary, conclusions, and recommendations are based on an available documents and limited groundwater study. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

7. SELECTED REFERENCES

Alameda County Health Care Services, 2005, Fuel Leak Case #RO0000467, Thompson & Thompson Fence Company, 2584 Grant Ave., San Lorenzo, California: dated May 26;

Chaney, Walton & McCall, 1999, Groundwater Monitoring Report, Thompson & Thompson Fence Company.: dated May.

Leyton & Associates, 1996, Preliminary Site Assessment Report, Thompson & Thompson Fence Company: dated May;

Ninyo & Moore, 2005, Groundwater Monitoring Report, Thompson & Thompson Fence Company: dated October 7.

Paradiso Construction Company, 1993 Underground Storage Tank Removal Report, Thompson & Thompson Fence Company: dated December;

Polymatrix Associates, 1997, Groundwater monitoring report, Thompson & Thompson Fence Company: dated May.

San Francisco Bay, California Regional Water Quality Control Board, 2005, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater: dated February.

TABLE 1
GROUNDWATER MONITORING WELL ELEVATION DATA
THOMPSON THOMPSON FENCE CO.

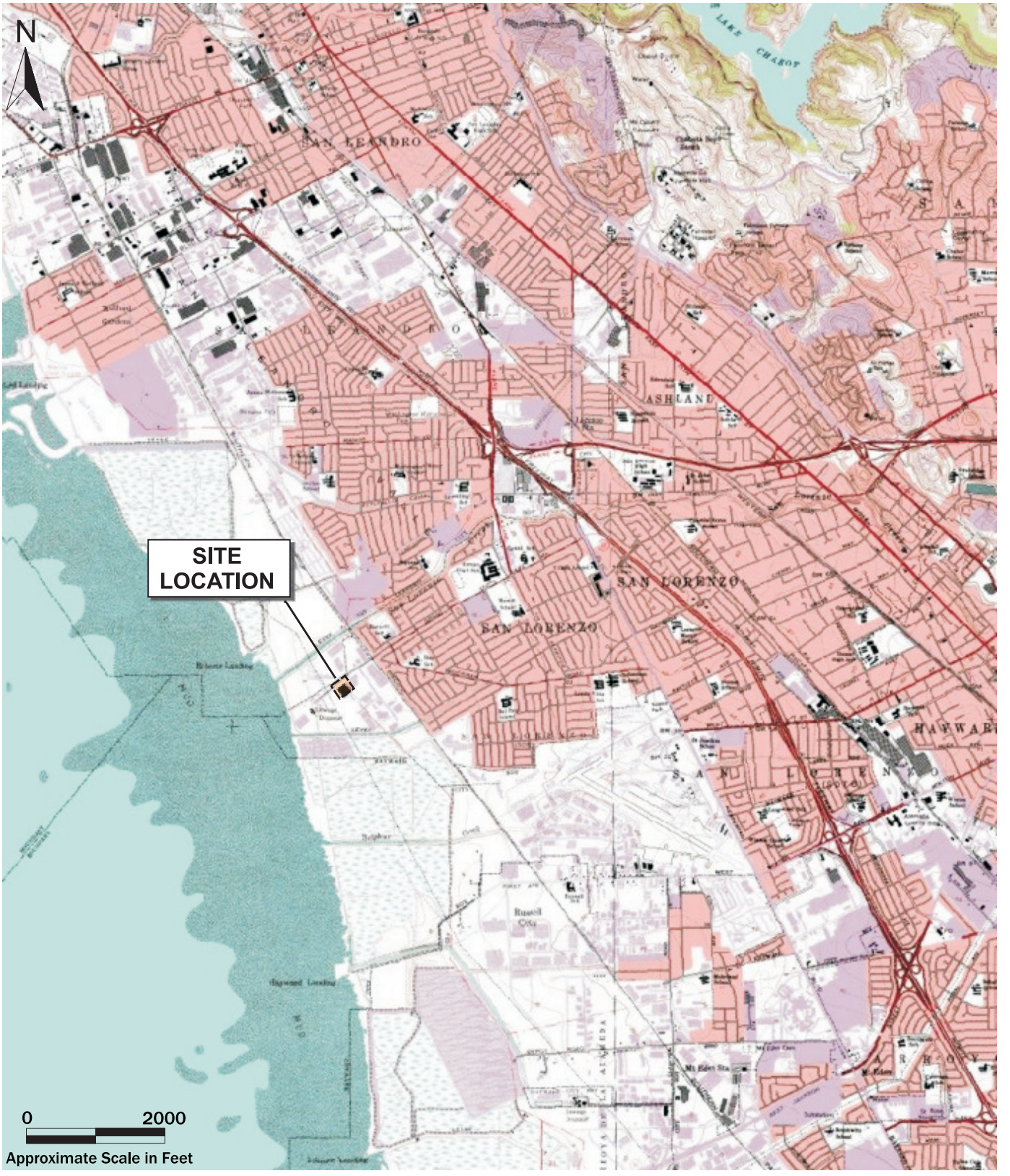
Well ID	Date	Depth to Water (feet)	Top of Casing Elevation (feet)	Groundwater Elevation (feet)
MW-1	1/21/1999[1]	5.14	8.76	3.62
	5/21/1999[1]	4.86	8.76	3.90
	9/6/2005[2]	6.08	8.76	2.68
	7/31/2006[2]	5.81	8.76	2.95
MW-2	1/21/1999[1]	5.28	8.78	3.50
	5/21/1999[1]	4.62	8.78	4.16
	9/6/2005[2]	6.25	8.78	2.53
	7/31/2006[2]	5.93	8.78	2.85
MW-3	1/21/1999[1]	4.50	8.63	4.13
	5/21/1999[1]	4.63	8.63	4.00
	9/6/2005[2]	6.74	8.63	1.89
	7/31/2006[2]	5.65	8.63	2.98

NOTES:

[1] Groundwater elevations measured by Chaney, Walton & McCall, LLC

[2] Groundwater elevations measured by Ninyo & Moore

Groundwater elevation measurements from top of casing (TOC)

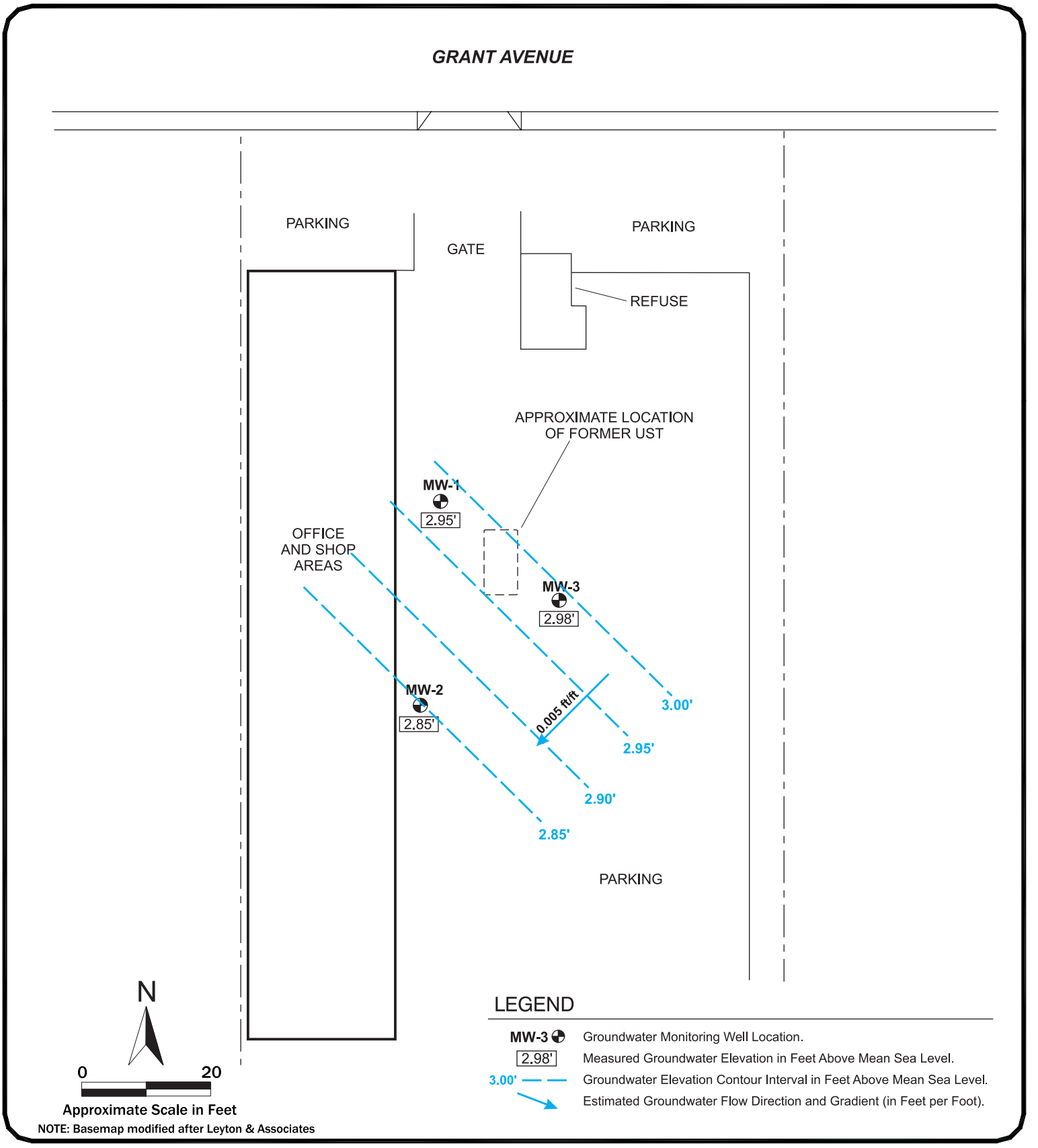


Ninyo & Moore

SITE LOCATION MAP

2584 GRANT AVENUE
SAN LORENZO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
401157002	10/06	1



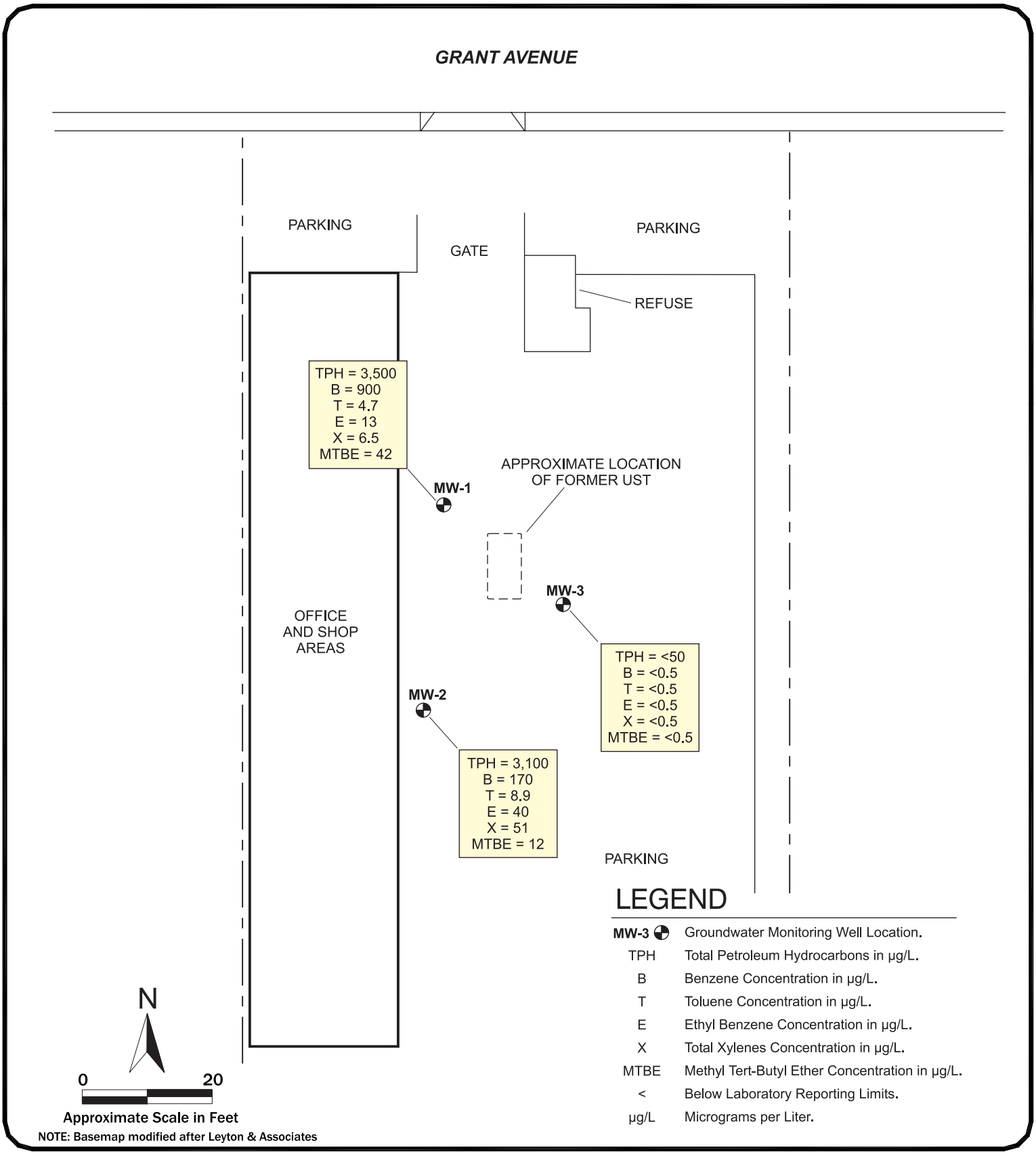
NOTE: Basemap modified after Leyton & Associates

Ninyo & Moore

SHALLOW GROUNDWATER GRADIENT MAP

2584 GRANT AVENUE
SAN LORENZO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
401157002	10/06	2



Ninyo & Moore

SHALLOW GROUNDWATER CONSTITUENT CONCENTRATION MAP

2584 GRANT AVENUE
SAN LORENZO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
401157002	10/06	3

APPENDIX A

FIELD SHEETS

Ninyo & Moore — GROUNDWATER SAMPLING FIELD DATA SHEET

Project Name: Thompson Fencing

Site: MW-1
Project No.: 401157002
Monitoring Well ID: MW-1

Date: 7/31/06 Sampler: DBB
Weather: Sunny
Vapor Monitoring Results (ppmv): BZ= WH=

Casing Diameter: ☑ 2" ☑ 4" ☑ 6" ☐ Other
Casing Material: ☑ SCH 40-PVC ☐ Other: S. Steel
Total Depth (ft-TOC): 18.27
Depth to Water (ft-TOC): 5.81
Floating Immiscible Layer Observed?: No
Floating Immiscible Layer Thickness (feet): NA
Water Column Height (feet): 12.46 x (2" = 0.16, 4"=0.65, 6" = 1.47) gal/ft = 2 x 3 = 6 Min. Purge Volume (gallons)

Water Level Measurement Equip.: Solinst Water Level Indicator
Purging Method/Equipment: Disp. PVC Bailer/ 2" GRUNDFOS Pump/Whale Pump
Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned
Temp./pH Meter: Ultrameter
Conductivity Meter: Ultrameter
Comments:

Cleaned: yes
Cleaned: yes
Calibration (date/time):
Calibration (date/time): Factory calibrated

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0		

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
1654	0		18.3	7.08	5.00 ms	Black, non turbid, strong petrol odor, no sheen
1658	1.5		18.6	7.06	4.88	" " " " " " "
1702	3		18.5	6.99	4.90	" " " " " " "
1702	4.5		18.6	7.28	4.32	" " " " " " "
1705	6		18.5	7.41	4.41	" " " " " " "

Total Volume Purged (gallon):
Time Finished Purging:

Sampling Method/Equipment: Disposable PVC Bailer
Bailer Rope-New or Cleaned?: New
Sample Time: 1650
Sample ID: MW-1
Replicate ID (if appl.) None
Laboratory: C-T ~~Sparger Technologies~~
Comments:

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/ TYPE (Voa/Glass/Plastic)	PRES.
TPH-g/ BTEX/MTBE	8015M	4 x 40mL VOA	4 °C, HCl

Ninyo & Moore

GROUNDWATER SAMPLING FIELD DATA SHEET

Project Name: Thompson Fencing

Site: MW-2
Project No.: 401157002
Monitoring Well ID: MW-1

Date: 7/31/06 Sampler: DBB
Weather: Sunny
Vapor Monitoring Results (ppmv): BZ= WH=

Casing Diameter: ☑ 2" ☑ 4" ☑ 6" ☐ Other
Casing Material: ☑ SCH 40-PVC ☐ Other: S. Steel
Total Depth (ft-TOC): 18.30
Depth to Water (ft-TOC): 5.93
Floating Immiscible Layer Observed?: No
Floating Immiscible Layer Thickness (feet): NA

Water Column Height (feet): 12.37 x 2" = 0.16, 4"=0.65, 6" = 1.47 gal/ft = 1.979 x 3 = 5.9 Min. Purge Volume (gallons)

Water Level Measurement Equip.: Solinst Water Level Indicator
Purging Method/Equipment: Disp. PVC Bailer/ 2" GRUNDFOS Pump/Whale Pump
Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned
Temp./pH Meter: Ultrameter
Conductivity Meter: Ultrameter
Comments:

Cleaned: yes
Cleaned: yes
Calibration (date/time):
Calibration (date/time): Factory calibrated

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0		

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. (°F)	6.55 pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
1440	0		19.2	[illegible]	9.90 mS	Black, Non turbid, strong odor, no sheen
1444	1.5		18.2	6.77	11.38 mS	" " " "
1448	3		17.9	7.20	11.23 mS	" " " "
1451	4.5		18.4	7.60	10.21	" "
1455	6		18.9	7.71	10.22	" " " "
[illegible]						
						odor of petroleum.

Total Volume Purged (gallon):
Time Finished Purging:

Sampling Method/Equipment: Disposable PVC Bailer
Bailer Rope-New or Cleaned?: New
Sample Time: 1544
Sample ID: MW-1
Replicate ID (if appl.) None
Laboratory: C-T ~~Sparger Technologies~~
Comments:

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/ TYPE (Voa/Glass/Plastic)	PRES.
TPH-g/ BTEX/MTBE	8015M	4 x 40mL VOA	4 °C, HCl

Ninyo & Moore

GROUNDWATER SAMPLING FIELD DATA SHEET

Project Name: Thompson Fencing

Site: MW-3
Project No.: 401157002
Monitoring Well ID: MW-3

Date: 7/31/06 **Sampler:** DBB
Weather: Sunny
Vapor Monitoring Results (ppmv): BZ= WH=

Casing Diameter: ☑ 2" ☑ 4" ☑ 6" ☐ Other
Casing Material: ☑ SCH 40-PVC ☐ Other: S. Steel

Total Depth (ft-TOC): 18.26
Depth to Water (ft-TOC): 5.65
Floating Immiscible Layer Observed?: No
Floating Immiscible Layer Thickness (feet): NA

Water Column Height (feet): 12.61 x (2" = 0.16, 4"=0.65, 6" = 1.47) gal/ft = 2.1 x 3 = 6.3 **Min. Purge Volume (gallons)**

Water Level Measurement Equip.: Solinst Water Level Indicator
Purging Method/Equipment: Disp. PVC Bailer/ 2" GRUNDFOS Pump/Whale Pump
Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned
Temp./pH Meter: Ultrameter
Conductivity Meter: Ultrameter
Comments:

Cleaned: yes
Cleaned: yes
Calibration (date/time):
Calibration (date/time): Factory calibrated

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0		

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
1605	0.0		18.5	7.30	2.86	Light brown, mod turbid, no odor, no sheen
1610	1.5		17.8	7.23	3.11	" " " " " "
1615	3.0		17.4	7.04	3.63	" " " " " "
1620	4.5		17.1	7.40	3.96	clear " " " "
1625	6.0		17.4	7.48	3.08	Brown, turbid, " " " "

Total Volume Purged (gallon): **Time Finished Purging:**

Sampling Method/Equipment: Disposable PVC Bailer
Bailer Rope-New or Cleaned?: New
Sample Time: 1600
Sample ID: MW-3
Replicate ID (if appl.) None

Laboratory: ~~Sparger Technologies~~ C&T

Comments:

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/ TYPE (Voa/Glass/Plastic)	PRES.
TPH-g/ BTEX/MTBE	8015M	4-x 40mL VOA	4 °C, HCl

APPENDIX B

LABORATORY ANALYTICAL REPORTS

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Ninyo & Moore
1956 Webster St.
Suite 400
Oakland, CA 94612

Date: 15-AUG-06
Lab Job Number: 188446
Project ID: STANDARD
Location: Thompson Fencing

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**188446**
Client:	**Ninyo & Moore**
Location:	**Thompson Fencing**
Request Date:	**08/01/06**
Samples Received:	**07/31/06**

This hardcopy data package contains sample and QC results for three water samples, requested for the above referenced project on 08/01/06. The samples were received on ice and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):
High surrogate recovery was observed for bromofluorobenzene (PID) in MW-1 (lab # 188446-003), due to interference from coeluting hydrocarbon peaks. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Water	Sampled:	07/31/06
Units:	ug/L	Received:	07/31/06
Batch#:	115880		

Field ID:	MW-2	Diln Fac:	2.000
Type:	SAMPLE	Analyzed:	08/01/06
Lab ID:	188446-001		

Analyte	Result	RL	Analysis
Gasoline C7-C12	3,100	100	EPA 8015B
MTBE	ND	4.0	EPA 8021B
Benzene	190	1.0	EPA 8021B
Toluene	9.9	1.0	EPA 8021B
Ethylbenzene	37	1.0	EPA 8021B
m,p-Xylenes	42	1.0	EPA 8021B
o-Xylene	7.6 C	1.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	123	69-137	EPA 8015B
Bromofluorobenzene (FID)	121	80-133	EPA 8015B
Trifluorotoluene (PID)	124	64-132	EPA 8021B
Bromofluorobenzene (PID)	115	80-120	EPA 8021B

Field ID:	MW-3	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	08/01/06
Lab ID:	188446-002		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	5.6 C	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	92	69-137	EPA 8015B
Bromofluorobenzene (FID)	97	80-133	EPA 8015B
Trifluorotoluene (PID)	111	64-132	EPA 8021B
Bromofluorobenzene (PID)	116	80-120	EPA 8021B

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD		
Matrix:	Water	Sampled:	07/31/06
Units:	ug/L	Received:	07/31/06
Batch#:	115880		

Field ID:	MW-1	Lab ID:	188446-003
Type:	SAMPLE	Analyzed:	08/01/06

Analyte	Result	RL	Diln Fac	Analysis
Gasoline C7-C12	3,500	100	2.000	EPA 8015B
MTBE C6	62	4.0	2.000	EPA 8021B
Benzene	1,000	5.0	10.00	EPA 8021B
Toluene	6.0	1.0	2.000	EPA 8021B
Ethylbenzene	18 C	1.0	2.000	EPA 8021B
m,p-Xylenes	6.5	1.0	2.000	EPA 8021B
o-Xylene	3.4 C	1.0	2.000	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Analysis
Trifluorotoluene (FID)	111	69-137	2.000	EPA 8015B
Bromofluorobenzene (FID)	117	80-133	2.000	EPA 8015B
Trifluorotoluene (PID)	132	64-132	2.000	EPA 8021B
Bromofluorobenzene (PID)	126 *	80-120	2.000	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC349758	Analyzed:	07/31/06

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

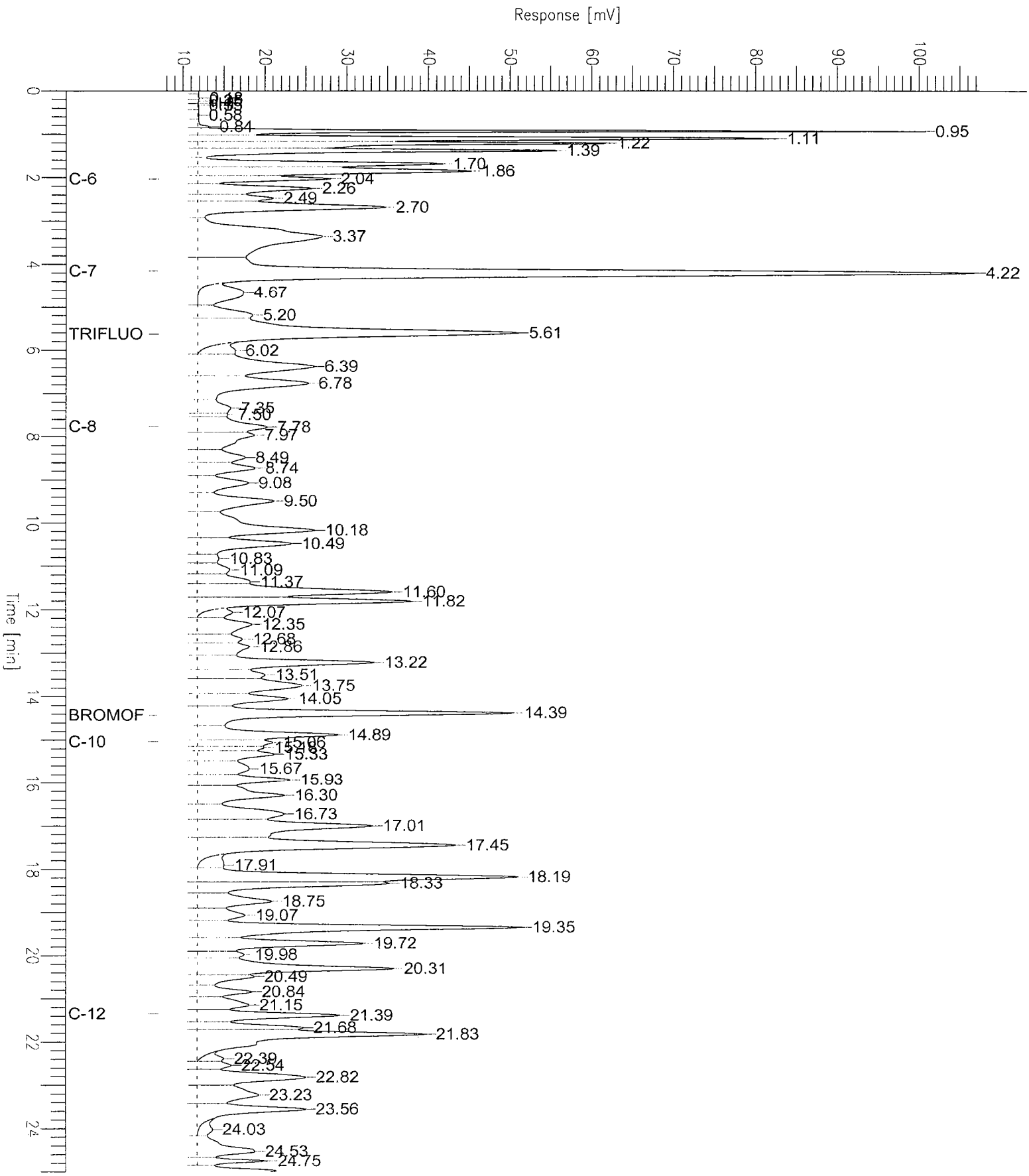
Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	91	69-137	EPA 8015B
Bromofluorobenzene (FID)	95	80-133	EPA 8015B
Trifluorotoluene (PID)	107	64-132	EPA 8021B
Bromofluorobenzene (PID)	110	80-120	EPA 8021B

*= Value outside of QC limits; see narrative
C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Chromatogram

Sample Name : 188446-001,115880,tvh+mbtxe
FileName : G:\GC05\DATA\212G036.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: 7 mV

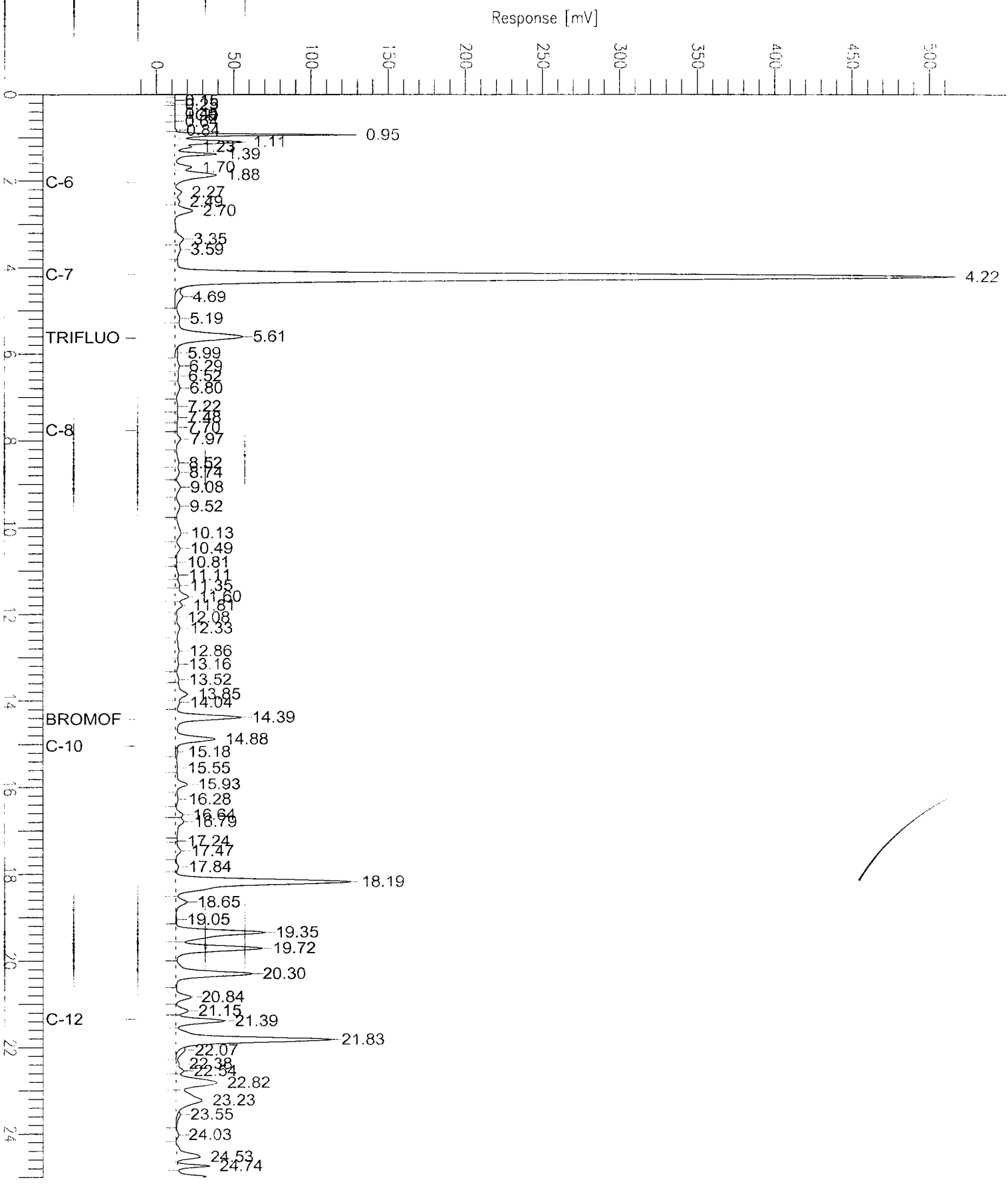
Sample #: a1.0 Page 1 of 1
Date : 8/1/06 02:17 PM
Time of Injection: 8/1/06 11:06 AM
Low Point : 7.04 mV High Point : 107.02 mV
Plot Scale: 100.0 mV



Chromatogram

Sample Name : 188446-003,115880,tvh+mbtxe
FileName : G:\GC05\DATA\212G035.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: -13 mV

Sample #: a1.0 Page 1 of 1
Date : 8/1/06 11:00 AM
Time of Injection: 8/1/06 10:35 AM
Low Point : -13.38 mV High Point : 516.67 mV
Plot Scale: 530.1 mV

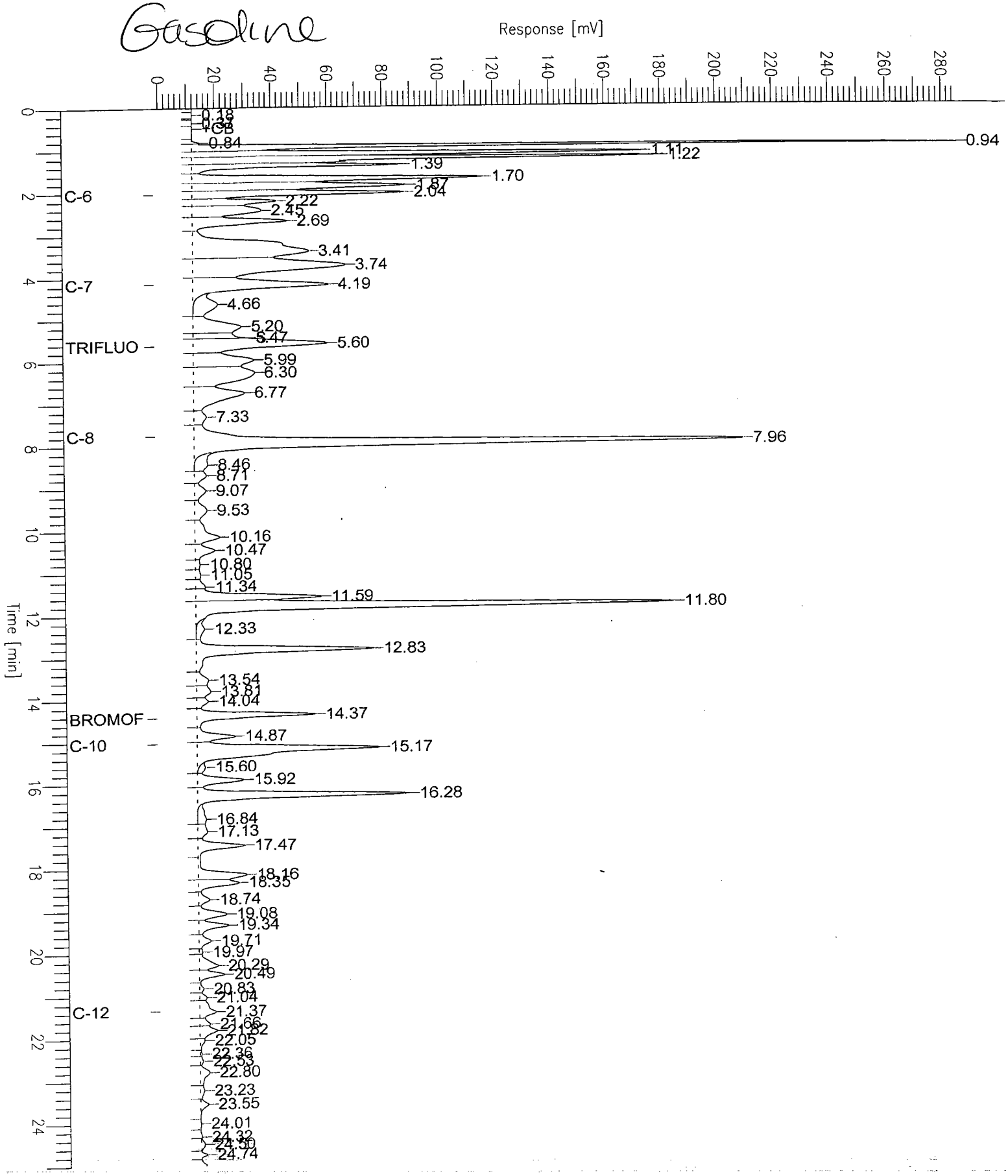


Chromatogram

Sample Name : ccv/lcs,qc349760,115880,s3982,5/5000
FileName : G:\GC05\DATA\212G003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor: 1.0 Plot Offset: -2 mV

Sample #:
Date : 8/1/06 02:17 PM
Time of Injection: 7/31/06 11:09 AM
Low Point : -1.70 mV High Point : 285.48 mV
Plot Scale: 287.2 mV

Gasoline



Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC349759	Batch#:	115880
Matrix:	Water	Analyzed:	07/31/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	23.06	115	72-124
Benzene	20.00	21.37	107	80-120
Toluene	20.00	22.13	111	80-120
Ethylbenzene	20.00	22.20	111	80-120
m,p-Xylenes	20.00	23.02	115	80-120
o-Xylene	20.00	22.95	115	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	112	64-132
Bromofluorobenzene (PID)	111	80-120

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC349760	Batch#:	115880
Matrix:	Water	Analyzed:	07/31/06
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,976	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	69-137
Bromofluorobenzene (FID)	115	80-133

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	115880
MSS Lab ID:	188394-007	Sampled:	07/28/06
Matrix:	Water	Received:	07/28/06
Units:	ug/L	Analyzed:	08/01/06
Diln Fac:	1.000		

Type: MS Lab ID: QC349891

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	26.36	2,000	1,931	95	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	69-137
Bromofluorobenzene (FID)	109	80-133

Type: MSD Lab ID: QC349892

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,933	95	80-120	0	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	134	69-137
Bromofluorobenzene (FID)	106	80-133

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-1	Units:	ug/L
Lab ID:	188446-003	Sampled:	07/31/06
Matrix:	Water	Received:	07/31/06

Analyte	Result	RL	Dil'n Fac	Batch#	Analyzed
MTBE	42	0.5	1.000	115977	08/02/06
Benzene	900	6.3	12.50	116062	08/04/06
Toluene	4.7	0.5	1.000	115977	08/02/06
Chlorobenzene	ND	0.5	1.000	115977	08/02/06
Ethylbenzene	13	0.5	1.000	115977	08/02/06
m,p-Xylenes	6.5	0.5	1.000	115977	08/02/06
o-Xylene	1.8	0.5	1.000	115977	08/02/06
1,3-Dichlorobenzene	ND	0.5	1.000	115977	08/02/06
1,4-Dichlorobenzene	ND	0.5	1.000	115977	08/02/06
1,2-Dichlorobenzene	ND	0.5	1.000	115977	08/02/06

Surrogate	%REC	Limits	Dil'n Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	93	80-130	1.000	115977	08/02/06
Toluene-d8	111	80-120	1.000	115977	08/02/06
Bromofluorobenzene	107	80-122	1.000	115977	08/02/06

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-2	Units:	ug/L
Lab ID:	188446-001	Sampled:	07/31/06
Matrix:	Water	Received:	07/31/06

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
MTBE	12	0.5	1.000	115977	08/02/06
Benzene	170	1.3	2.500	116008	08/03/06
Toluene	8.9	0.5	1.000	115977	08/02/06
Chlorobenzene	ND	0.5	1.000	115977	08/02/06
Ethylbenzene	40	0.5	1.000	115977	08/02/06
m,p-Xylenes	51	0.5	1.000	115977	08/02/06
o-Xylene	5.4	0.5	1.000	115977	08/02/06
1,3-Dichlorobenzene	ND	0.5	1.000	115977	08/02/06
1,4-Dichlorobenzene	ND	0.5	1.000	115977	08/02/06
1,2-Dichlorobenzene	ND	0.5	1.000	115977	08/02/06

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
1,2-Dichloroethane-d4	122	80-130	1.000	115977	08/02/06
Toluene-d8	111	80-120	1.000	115977	08/02/06
Bromofluorobenzene	108	80-122	1.000	115977	08/02/06

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	115977
Lab ID:	188446-002	Sampled:	07/31/06
Matrix:	Water	Received:	07/31/06
Units:	ug/L	Analyzed:	08/02/06
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	125	80-130
Toluene-d8	109	80-120
Bromofluorobenzene	106	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC350115	Batch#:	115977
Matrix:	Water	Analyzed:	08/02/06
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	124	80-130
Toluene-d8	108	80-120
Bromofluorobenzene	108	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC350262	Batch#:	116008
Matrix:	Water	Analyzed:	08/03/06
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	128	80-130
Toluene-d8	111	80-120
Bromofluorobenzene	110	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC350462	Batch#:	116062
Matrix:	Water	Analyzed:	08/04/06
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5
Benzene	ND	0.5
Toluene	ND	0.5
Chlorobenzene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	127	80-130
Toluene-d8	112	80-120
Bromofluorobenzene	108	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	115977
Units:	ug/L	Analyzed:	08/02/06
Diln Fac:	1.000		

Type: BS Lab ID: QC350113

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	24.63	99	72-120
Benzene	25.00	27.49	110	80-120
Toluene	25.00	25.21	101	80-120
Chlorobenzene	25.00	25.97	104	80-120
Ethylbenzene	25.00	27.12	108	80-120
m,p-Xylenes	50.00	52.90	106	80-121
o-Xylene	25.00	25.68	103	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	122	80-130
Toluene-d8	109	80-120
Bromofluorobenzene	105	80-122

Type: BSD Lab ID: QC350114

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	23.30	93	72-120	6	20
Benzene	25.00	26.23	105	80-120	5	20
Toluene	25.00	24.46	98	80-120	3	20
Chlorobenzene	25.00	25.82	103	80-120	1	20
Ethylbenzene	25.00	27.48	110	80-120	1	20
m,p-Xylenes	50.00	51.88	104	80-121	2	20
o-Xylene	25.00	24.60	98	80-120	4	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	122	80-130
Toluene-d8	109	80-120
Bromofluorobenzene	105	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	116008
Units:	ug/L	Analyzed:	08/03/06
Diln Fac:	1.000		

Type: BS Lab ID: QC350260

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	26.26	105	72-120
Benzene	25.00	27.26	109	80-120
Toluene	25.00	25.14	101	80-120
Chlorobenzene	25.00	26.46	106	80-120
Ethylbenzene	25.00	28.35	113	80-120
m,p-Xylenes	50.00	54.45	109	80-121
o-Xylene	25.00	26.20	105	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	119	80-130
Toluene-d8	110	80-120
Bromofluorobenzene	107	80-122

Type: BSD Lab ID: QC350261

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	23.12	92	72-120	13	20
Benzene	25.00	27.95	112	80-120	2	20
Toluene	25.00	25.25	101	80-120	0	20
Chlorobenzene	25.00	26.66	107	80-120	1	20
Ethylbenzene	25.00	27.71	111	80-120	2	20
m,p-Xylenes	50.00	53.56	107	80-121	2	20
o-Xylene	25.00	25.77	103	80-120	2	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	123	80-130
Toluene-d8	112	80-120
Bromofluorobenzene	105	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Aromatics by GC/MS

Lab #:	188446	Location:	Thompson Fencing
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	116062
Units:	ug/L	Analyzed:	08/04/06
Diln Fac:	1.000		

Type: BS Lab ID: QC350460

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	25.47	102	72-120
Benzene	25.00	27.95	112	80-120
Toluene	25.00	25.56	102	80-120
Chlorobenzene	25.00	26.81	107	80-120
Ethylbenzene	25.00	28.76	115	80-120
m,p-Xylenes	50.00	54.84	110	80-121
o-Xylene	25.00	26.47	106	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	124	80-130
Toluene-d8	112	80-120
Bromofluorobenzene	106	80-122

Type: BSD Lab ID: QC350461

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	22.40	90	72-120	13	20
Benzene	25.00	26.11	104	80-120	7	20
Toluene	25.00	23.85	95	80-120	7	20
Chlorobenzene	25.00	25.08	100	80-120	7	20
Ethylbenzene	25.00	27.62	110	80-120	4	20
m,p-Xylenes	50.00	51.05	102	80-121	7	20
o-Xylene	25.00	24.44	98	80-120	8	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	125	80-130
Toluene-d8	111	80-120
Bromofluorobenzene	107	80-122

RPD= Relative Percent Difference