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December 19, 2011

Ms. Michelle Mullin
Project Manager
USEPA, Region 5
77 West Jackson Boulevard
LU-95
Chicago, IL 60604-3590

Subject: Response to USEPA Comments Dated December 5, 2011 Regarding the Environmental Indicator Report for Human Health Under Control

Dear Ms. Mullin:

Thank you for your timely review of the Current Human Exposures Under Control Environmental Indicator Report (Current Human Exposures Report). TRC Environmental Corporation (TRC) and Tecumseh Products Company (TPC) reviewed the United States Environmental Protection Agency's (USEPA) comments dated December 5, 2011 and have prepared the following response to address USEPA comments and to supplement the Current Human Exposures Report.

Indoor Air at Residential Properties East of the Site

USEPA comment:

However, I believe this report is incomplete because at the time of submittal TPC had not completed sampling at potential sites of exposure and therefore was unable to demonstrate that all exposures from the site had been identified. Specifically, crawl space samples were collected from 502 and 610 Mohawk Lane properties and 505 and 507 South Maumee properties between October 11 and 12, 2011 to determine whether or not a pathway for exposure existed and required mitigation.

Response:

As noted above crawl space samples were collected at 502 Mohawk Street, 505 S. Maumee Street, 507 S. Maumee Street, and 610 Mohawk Street between October 11 and 12, 2011. Analytical laboratory reports are included as Attachment 1, and crawl space sample results are tabulated in the attached Table 1. Sample results were tabulated and evaluated, and letter reports dated November 4, 2011 were sent to the homeowners. USEPA received copies of these letters. Constituents of concern (COCs) for the site were compared to risk-based residential indoor air criteria. **No COCs were detected above risk-based criteria in crawl space air.**

USEPA comment:

Additionally, a Sub-Slab Depressurization System was installed at 704 Mohawk Lane, and a sub-slab sample collected between October 11-12, 2011 to mitigate a potential exposure and assess the efficacy of the system, respectively. The results of the sub-slab sample revealed exceedances above soil gas screening criteria triggering a requirement for a follow up indoor air sample that was collected between November 14-15, 2011; results are not yet reported.

Response:

A sub-slab depressurization/ventilation (SSDV) system was installed at 704 Mohawk Street on October 11, 2011. An initial system performance evaluation was conducted on October 12, 2011 and the 30-day performance evaluation was conducted from November 14 to November 15, 2011. Analytical laboratory reports from samples collected during performance evaluation are included as Attachment 2, indoor air and soil gas sample results are tabulated in the attached Tables 1 and 2, respectively.

A letter report dated November 4, 2011 documents SSDV system construction and the October 2011 performance evaluation, including soil gas sample results. A letter report dated December 12, 2011 documents the 30-day system evaluation including soil gas and indoor air sample results. USEPA received copies of these letter reports. Both the initial system performance evaluation and the 30-day performance evaluation indicated that the SSDV system is operating as intended, creating a negative pressure (>1 Pascal) between the sub-slab and the basement throughout the building footprint. This pressure differential indicates that **the SSDV system has eliminated the potential volatilization to indoor air migration pathway at 704 Mohawk Street.** However, because trichloroethene was detected in the sub-slab soil gas above the provisional SGSLs calculated using a soil gas attenuation factor of 0.1 (Attachment 2 and Table 2), a 24-hour indoor air sample was collected from the breathing zone of the basement to confirm system performance.

Analytical laboratory reports for samples collected at 704 Mohawk Street in October 2011 and November 2011 are included as Attachment 2, and indoor air sample results are tabulated in the attached Table 1. **No COCs for the site were detected in the indoor air.**

Indoor Air at Residential Properties North of the Site

USEPA comment:

In addition, on at least two occasions I have shared with representatives of TPC my concern about the lack of data that exists for residences north of the TPC site and the potential for vapor intrusion at these homes. Specifically residences bounded by Patterson on the south, Pottawatamie on the north, South Evans on the west and South Maumee on the east have very little soil gas data to support a conclusion that a pathway of exposure to VOCs from TPC does not exist. Four of the sample locations TPC selected in this region have never produced any data due to the sample ports being flooded with water. My position has consistently been for TPC to either drill new sample ports, or provide some other documentation that a pathway cannot exist. TPC indicated they had evidence of a clay layer providing an effective barrier to vapor intrusion in that region. However, the updated cross sections TPC provided for the entire site in their September 29 submittal fail to support TPCs conclusion that vapor intrusion is not a matter of concern for homeowners north of the TPC site.

Response:

TPC agrees that USEPA expressed concerns regarding the potential volatilization to indoor air migration pathway north and northeast of the site in August 2010 and February 2011. TPC has addressed these concerns:

- Two additional soil gas sample points were installed in September 2010;
- A clay layer investigation was conducted and new cross-sections were prepared (Figures 5, 6, 7, 9 and 10 of the Current Human Exposures Under Control Report); and
- USEPA concerns regarding elevated detection limits were addressed through communications with the analytical laboratory.

TPC disagrees with USEPA's assessment that "very little soil gas data" is available to support the position that current human exposure to affected indoor air north of the site is under control. USEPA further states that "Four of the sample locations TPC selected in this region have never produced any data due to the sample ports being flooded with water." There are a total of four sample ports in the area north of the site (bounded by Patterson on the south, Pottawatamie on the north, South Evans on the west and South Maumee on the east) where the intermediate clay layer is not present: SG-10, SG-11, SG-13, and SG-16.

Soil gas sample results are tabulated in Table 8 of the Current Human Exposures Under Control Report. At the time the Current Human Exposures Under Control Report was under preparation, at least four samples had been collected and analyzed at each of these locations. In fact, of these four soil gas sample locations, only one (SG-10) during a single sample event (June 2011) has not been sampled due to water in the sample point.

In February 2010, USEPA did express concern regarding elevated detection limits at SG-10 and SG-16. Residential soil gas screening levels (SGSLs) calculated using the generic soil gas attenuation factor of 0.1 are sufficiently low for 1,2-DCA (2.4 ppbv) and PCE (6.2 ppbv) that detection limits at residential sample locations exceeded these SGSLs at some locations for sample events conducted in 2010. In 2011, in response to USEPA comments, alternative laboratory procedures were implemented to ensure the lowest reasonable detection limits for subsequent sample events. Since that time, detection limits at these sample location have not exceeded soil gas screening levels calculated using an attenuation factor of 0.1.

As stated in the Current Human Exposures Under Control Report, concentrations of detected COCs at soil gas sample locations north of the site (SG-10, SG-11, SG-13, and SG-16) were below all of the soil gas screening levels considered, therefore the migration pathway is not complete. At the time the Current Human Exposures Under Control Report was submitted, current human exposures were under control. TPC continues to collect quarterly samples at SG-10, SG-11, SG-13 and SG-16, and will address potential future exposures, as appropriate, in the Final Corrective Measures Proposal.

Surface Water East of the Site

USEPA comment:

Furthermore, TPC contends that although MW-31 has levels of VOCs above drinking water criteria, and groundwater downgradient of MW-31 may be discharging to the River Raisin at concentrations above risk-based levels for drinking water, those concentrations are expected to be diluted by the river. I disagree that estimates for dilution are an acceptable method for ruling out human exposures at this pathway. As I have previously shared with Graham Crockford of TRC, a spring discharges to the River Raisin at the abandoned Blood Road Bridge, which is immediately downgradient of MW-31. It is common knowledge that some residents use this spring as a direct source of drinking water during their recreational activities, for example hunters fill up their water bottles from the spring. Therefore, TPC needs to re-evaluate its proposed remedy for VOC contamination observed at MW-31.

Response:

In a comment letter dated March 11, 2011, Ms. Mullin at USEPA noted that a "spring or artesian well that residents commonly drink from is located on the west bank of the River Raisin, on the north side of the old Blood Road Bridge." In April 2011, TRC communicated with a local resident for help locating the spring and conducted site reconnaissance to locate and identify the alleged spring. The Resident stated that persons may have drunk from the spring years ago, when he was a child, but that he was unaware of continued use. The results of site reconnaissance activities were reported in the Second Quarter 2011 Progress Report:

- No well, fountain, or other devise to facilitate collection of seeping groundwater was identified.
- The groundwater seep was of insufficient volume to reasonably fill a water bottle or cupped hands directly.

Considering the results of site reconnaissance, TPC supports the evaluation of current human exposure provided in Section 7 of the Current Human Exposures Under Control Report.

Summary

The responses above and the attached data addresses concerns expressed by USEPA, and further demonstrate that all current human exposures to contamination at or from the facility are under control, as required under Paragraph 13 of the Agreed Order of Consent.

If you have any questions regarding this correspondence, please contact me at (734) 585-7813.

Sincerely,

TRC Environmental Corporation

Graham Crockford, C.P.G.
Project Manager

Attachments

Table 1 – Summary of Volatile Organic Compounds in Crawl Space and Indoor Air Samples
Table 2 – Summary of Volatile Organic Compounds in Sub-Slab Soil Gas at 704 Mohawk Street

Attachment 1 – Laboratory Analytical Data – Crawl Space Samples, October 2011
Attachment 2 – Laboratory Analytical Data – 704 Mohawk Street, October-November 2011

cc: Susan Perdomo – USEPA
Jason Smith – Tecumseh Products Company
Douglas McClure – Conlin, McKenney & Philbrick, PC
Roger Jackson – Tecumseh Products Company
Stacy Metz, TRC

Tables

Table 1
Summary of Volatile Organic Compounds in Crawlspace and Indoor Air Samples
Tecumseh Products Company
Tecumseh, Michigan

Analyte	Units	Residential Indoor Air Criteria[(1)]	502 Mohawk Bedroom Crawlspace	502 Mohawk Deep Crawlspace	505 Maumee Crawlspace	507 Maumee Crawlspace	610 Mohawk Crawlspace	Duplicate - 610 Mohawk	704 Mohawk Indoor Air
Acetone	ppbv	NC	**6.6**	**4.5**	**4.2**	<0.50	**1.9**	**2.2**	**9.3**
Benzene	ppbv	NC	**0.68**	**0.97**	<0.10	**0.06**	**0.20**	**0.21**	**0.19**
Bromodichloromethane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Bromoform	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Bromomethane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
2-Butanone (MEK)	ppbv	NC	**0.74**	**0.55**	<0.40	<0.20	<0.20	**0.28**	<0.40
Carbon disulfide	ppbv	NC	<0.20	<0.20	<0.20	**0.17**	<0.10	<0.10	<0.20
Carbon tetrachloride	ppbv	NC	<0.10	<0.10	<0.10	**0.05**	**0.08**	**0.07**	<0.10
Chlorobenzene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Chloroethane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Chloroform	ppbv	NC	<0.10	<0.10	<0.10	<0.05	<0.05	<0.05	<0.10
Chloromethane	ppbv	NC	<0.20	<0.20	<0.20	**0.10**	<0.10	<0.10	<0.20
Dibromochloromethane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,2-Dichlorobenzene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,3-Dichlorobenzene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,4-Dichlorobenzene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,2-Dibromoethane (EDB)	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Dichlorodifluoromethane (F12)	ppbv	NC	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.40
1,1-Dichloroethane	ppbv	3.8	**0.25**	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,2-Dichloroethane (EDC)	ppbv	0.24	<0.20	**0.23**	<0.20	<0.10	<0.10	<0.10	<0.20
1,1-Dichloroethene	ppbv	52	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
cis-1,2-Dichloroethene	ppbv	9.3	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
trans-1,2-Dichloroethene	ppbv	16	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,2-Dichloropropane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
cis-1,3-Dichloropropene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
trans-1,3-Dichloropropene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Dichlorotetrafluoroethane (F114)	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Ethylbenzene	ppbv	NC	**1.1**	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
4-Ethyltoluene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Hexachlorobutadiene	ppbv	NC	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.40
2-Hexanone (MBK)	ppbv	NC	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.40
4-Methyl-2-pentanone (MIBK)	ppbv	NC	<0.40	<0.40	<0.40	<0.20	<0.20	<0.20	<0.40

Notes:

1) Provisional Indoor Air Criteria were calculated for site constituents of concern and their degradation products according the methods described in the MDNRE document titled "Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels ($GW_{VI}SLs$).

2) Quality control results for this datum are outside the established control limits. The result is approximate.

ppbv = parts per billion by volume

NC = No criterion was calculated because the analyte is not a constituent of concern at the site.

Table 1
Summary of Volatile Organic Compounds in Crawlspace and Indoor Air Samples
Tecumseh Products Company
Tecumseh, Michigan

Analyte	Units	Residential Indoor Air Criteria[1]	502 Mohawk Bedroom Crawlspace	502 Mohawk Deep Crawlspace	505 Maumee Crawlspace	507 Maumee Crawlspace	610 Mohawk Crawlspace	Duplicate - 610 Mohawk	704 Mohawk Indoor Air
Methylene chloride (Dichloromethane)	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Styrene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,1,1,2-Tetrachloroethane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,1,2,2-Tetrachloroethane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Tetrachloroethene	ppbv	0.62	<0.20	<0.20	<0.20	<0.10	**0.11**	<0.10	<0.20
Toluene	ppbv	NC	**1.7**	**2.2**	<1.0	<0.50	**0.74**	**0.65**	**1.9**
1,2,4-Trichlorobenzene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	**0.16**	<0.10	<0.20
1,1,1-Trichloroethane	ppbv	940	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
1,1,2-Trichloroethane	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Trichloroethene	ppbv	2.3	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Trichlorofluoromethane (F11)	ppbv	NC	**0.24**	**0.23**	**0.23**	<0.10	**0.24**	**0.22**	**0.21**
1,1,2-Trichlorotrifluoroethane (F113)	ppbv	NC	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<1.0
1,2,4-Trimethylbenzene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	**0.15**	**0.13**	<0.20
1,3,5-Trimethylbenzene	ppbv	NC	<0.20	<0.20	<0.20	<0.10	<0.10	<0.10	<0.20
Vinyl chloride	ppbv	1.1	<0.10	<0.10	<0.10	<0.05	<0.05	<0.05	<0.10[2]
m,p-Xylene	ppbv	NC	**0.78**	**0.50**	<0.20	<0.10	**0.35**	**0.34**	<0.20
o-Xylene	ppbv	NC	**0.33**	<0.20	<0.20	<0.10	**0.14**	**0.13**	<0.20

Notes:

1) Provisional Indoor Air Criteria were calculated for site constituents of concern and their degradation products according the methods described in the MDNRE document titled "Background Document: Draft Proposed Vapor Intrusion Indoor Air Criteria (IAC), Soil Gas Criteria (SGC), and Groundwater Screening Levels (GW_{VI}SLs).

2) Quality control results for this datum are outside the established control limits. The result is approximate.

ppbv = parts per billion by volume

NC = No criterion was calculated because the analyte is not a constituent of concern at the site.

Table 2
Summary of Volatile Organic Compounds in Sub-Slab Soil Gas at 704 Mohawk Street
Tecumseh Products Company
Tecumseh, Michigan

Analyte	Units	Residential SGSLs where $\alpha = 0.1$[(1)]	Oct 12, 2011	Nov 14, 2011
Acetone	ppbv	NC	**8.7**	<10
Benzene	ppbv	NC	**0.07**	<1.0
Bromodichloromethane	ppbv	NC	<0.10	<2.0
Bromoform	ppbv	NC	<0.10	<2.0
Bromomethane	ppbv	NC	<0.10	<2.0
2-Butanone (MEK)	ppbv	NC	**0.83**	<4.0
Carbon disulfide	ppbv	NC	<0.10	<2.0
Carbon tetrachloride	ppbv	NC	<0.05	<1.0
Chlorobenzene	ppbv	NC	<0.10	<2.0
Chloroethane	ppbv	NC	<0.10	<2.0
Chloroform	ppbv	NC	**0.23**	<1.0
Chloromethane	ppbv	NC	<0.10	<2.0
Dibromochloromethane	ppbv	NC	<0.10	<2.0
1,2-Dibromoethane (EDB)	ppbv	NC	<0.10	<2.0
1,2-Dichlorobenzene	ppbv	NC	<0.10	<2.0
1,3-Dichlorobenzene	ppbv	NC	<0.10	<2.0
1,4-Dichlorobenzene	ppbv	NC	<0.10	<2.0
Dichlorodifluoromethane (F12)	ppbv	NC	<0.20	<4.0
1,1-Dichloroethane	ppbv	**38**	**8.0**	**11**
1,2-Dichloroethane (EDC)	ppbv	**2.4**	<0.10	<2.0
1,1-Dichloroethene	ppbv	**520**	<0.10	<2.0
cis-1,2-Dichloroethene	ppbv	**93**	**8.1**[(2)]	**14**
trans-1,2-Dichloroethene	ppbv	**160**	**2.8**	**4.2**
1,2-Dichloropropane	ppbv	NC	<0.10	<2.0
cis-1,3-Dichloropropene	ppbv	NC	<0.10	<2.0
trans-1,3-Dichloropropene	ppbv	NC	<0.10	<2.0
Dichlorotetrafluoroethane (F114)	ppbv	NC	<0.10	<2.0
Ethylbenzene	ppbv	NC	**0.78**	<2.0
4-Ethyltoluene	ppbv	NC	<0.10	<2.0
Hexachlorobutadiene	ppbv	NC	<0.20	<4.0
2-Hexanone (MBK)	ppbv	NC	<0.20	<4.0
4-Methyl-2-pentanone (MIBK)	ppbv	NC	<0.20	<4.0
Methylene chloride (Dichloromethane)	ppbv	NC	<0.10	<2.0
Styrene	ppbv	NC	<0.10	<2.0
1,1,1,2-Tetrachloroethane	ppbv	NC	<0.10	<2.0
1,1,2,2-Tetrachloroethane	ppbv	NC	<0.10	<2.0
Tetrachloroethene	ppbv	**6.2**	<0.10	<2.0
Toluene	ppbv	NC	<0.50	<10
1,2,4-Trichlorobenzene	ppbv	NC	<0.10	<2.0
1,1,1-Trichloroethane	ppbv	**940**	**140**	**140**
1,1,2-Trichloroethane	ppbv	NC	<0.10	<2.0
Trichloroethene	ppbv	**23**	**480**	**620**
Trichlorofluoromethane (F11)	ppbv	NC	**1.9**	<2.0
1,1,2-Trichlorotrifluoroethane (F113)	ppbv	NC	<0.50	<10
1,2,4-Trimethylbenzene	ppbv	NC	**0.11**	<2.0
1,3,5-Trimethylbenzene	ppbv	NC	<0.10	<2.0
Vinyl chloride	ppbv	**11**	<0.05	<1.0[(2)]
m,p-Xylene	ppbv	NC	**0.81**	<2.0
o-Xylene	ppbv	NC	**0.34**	<2.0
1,1-Difluoroethane - TRACER	percent	1.0	$<3.6 \times 10^{-4}$	$<3.6 \times 10^{-4}$

Notes:
1) Provisional soil gas screening levels (SGSLs) for site constituents of concern and their degradation products were calculated using provisional indoor air crieria and an attenuation factor (α) of 0.1 as specified in a comment letter from USEPA dated August 24, 2010.
2) Quality control results for this datum are outside the established control limits. The result is approximate.

Denotes concentrations above one or more applicable soil gas screening levels.

ppbv = parts per billion by volume
NC = No criterion was calculated because the analyte is not a constituent of concern at the site.

Attachment 1
Laboratory Analytical Data – Crawl Space Samples, October 2011

H&P Mobile Geochemistry Inc.

25 October 2011

Mr. James Alfonsi
TRC Environmental - MI
3754 Ranchero Drive
Ann Arbor, MI 48108

H&P Project: TRC101411-12
Client Project: 004313.0000.0000 / Tecumseh

Dear Mr. James Alfonsi:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 14-Oct-11 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

2470 Impala Drive, Carlsbad, California 92010 ┌ 760.804.9678 — Fax 760.804.9159
1855 Coronado Avenue, Signal Hill, California 90755
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Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

TRC Environmental - MI	Project: TRC101411-12	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
502 Mohawk-Bedroom Crawl Space	E110045-01	Vapor	12-Oct-11	14-Oct-11
502 Mohawk-Deep Crawl Space	E110045-02	Vapor	12-Oct-11	14-Oct-11
505 Maumee	E110045-03	Vapor	12-Oct-11	14-Oct-11
507 Maumee	E110045-04	Vapor	12-Oct-11	14-Oct-11

H&P Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

TRC Environmental - MI	Project: TRC101411-12	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
502 Mohawk-Bedroom Crawl Space (E110045-01) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Dichlorodifluoromethane (F12)	ND	0.40	ppbv	2	EJ11810	18-Oct-11	18-Oct-11	EPA TO-15	
Chloromethane	ND	0.20	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.20	"	"	"	"	"	"	
Vinyl chloride	ND	0.10	"	"	"	"	"	"	
Bromomethane	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**0.24**	0.20	"	"	"	"	"	"	
Acetone	**6.6**	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	1.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.20	"	"	"	"	"	"	
Carbon disulfide	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	**0.25**	0.20	"	"	"	"	"	"	
2-Butanone (MEK)	**0.74**	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.20	"	"	"	"	"	"	
Benzene	**0.68**	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.40	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
Toluene	**1.7**	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.20	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.40	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
Tetrachloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Ethylbenzene	**1.1**	0.20	"	"	"	"	"	"	
m,p-Xylene	**0.78**	0.20	"	"	"	"	"	"	
Styrene	ND	0.20	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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TRC Environmental - MI	Project: TRC101411-12	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
502 Mohawk-Bedroom Crawl Space (E110045-01) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
o-Xylene	**0.33**	0.20	ppbv	2	EJ11810	18-Oct-11	18-Oct-11	EPA TO-15	
Bromoform	ND	0.20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.20	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.20	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*94.0 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*77-127*	"	"	"	"	
502 Mohawk-Deep Crawl Space (E110045-02) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Dichlorodifluoromethane (F12)	ND	0.40	ppbv	2	EJ11810	18-Oct-11	19-Oct-11	EPA TO-15	
Chloromethane	ND	0.20	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.20	"	"	"	"	"	"	
Vinyl chloride	ND	0.10	"	"	"	"	"	"	
Bromomethane	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**0.23**	0.20	"	"	"	"	"	"	
Acetone	**4.5**	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	1.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.20	"	"	"	"	"	"	
Carbon disulfide	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
2-Butanone (MEK)	**0.55**	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	**0.23**	0.20	"	"	"	"	"	"	
Benzene	**0.97**	0.10	"	"	"	"	"	"	

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TRC Environmental - MI	Project: TRC101411-12	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
502 Mohawk-Deep Crawl Space (E110045-02) Vapor	**Sampled: 12-Oct-11**	**Received: 14-Oct-11**							
Carbon tetrachloride	ND	0.10	ppbv	2	EJ11810	18-Oct-11	19-Oct-11	EPA TO-15	
Trichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.40	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
Toluene	**2.2**	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.20	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.40	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
Tetrachloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Ethylbenzene	ND	0.20	"	"	"	"	"	"	
m,p-Xylene	**0.50**	0.20	"	"	"	"	"	"	
Styrene	ND	0.20	"	"	"	"	"	"	
o-Xylene	ND	0.20	"	"	"	"	"	"	
Bromoform	ND	0.20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.20	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.20	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*90.8 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*92.5 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*77-127*	"	"	"	"	

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TRC Environmental - MI	Project: TRC101411-12	
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Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
505 Maumee (E110045-03) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Dichlorodifluoromethane (F12)	ND	0.40	ppbv	2	EJ11903	18-Oct-11	19-Oct-11	EPA TO-15	
Chloromethane	ND	0.20	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.20	"	"	"	"	"	"	
Vinyl chloride	ND	0.10	"	"	"	"	"	"	
Bromomethane	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**0.23**	0.20	"	"	"	"	"	"	
Acetone	**4.2**	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	1.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.20	"	"	"	"	"	"	
Carbon disulfide	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.20	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.40	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.20	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.40	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
Tetrachloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Ethylbenzene	ND	0.20	"	"	"	"	"	"	
m,p-Xylene	ND	0.20	"	"	"	"	"	"	
Styrene	ND	0.20	"	"	"	"	"	"	

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TRC Environmental - MI
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Project: TRC101411-12
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
505 Maumee (E110045-03) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
o-Xylene	ND	0.20	ppbv	2	EJ11903	18-Oct-11	19-Oct-11	EPA TO-15	
Bromoform	ND	0.20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.20	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.20	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.1 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*80.1 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*97.9 %*		*77-127*	"	"	"	"	
507 Maumee (E110045-04) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Dichlorodifluoromethane (F12)	ND	0.20	ppbv	1	EJ11810	18-Oct-11	19-Oct-11	EPA TO-15	
Chloromethane	**0.10**	0.10	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.10	"	"	"	"	"	"	
Acetone	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Carbon disulfide	**0.17**	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.05	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Benzene	**0.06**	0.05	"	"	"	"	"	"	

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Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
507 Maumee (E110045-04) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Carbon tetrachloride	**0.05**	0.05	ppbv	1	EJ11810	18-Oct-11	19-Oct-11	EPA TO-15	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	ND	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
o-Xylene	ND	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*84.3 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*88.2 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*77-127*	"	"	"	"	

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Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11810 - TO-15										
Blank (EJ11810-BLK1)				Prepared & Analyzed: 18-Oct-11						
Dichlorodifluoromethane (F12)	ND	0.20	ppbv							
Chloromethane	ND	0.10	"							
Dichlorotetrafluoroethane (F114)	ND	0.10	"							
Vinyl chloride	ND	0.05	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
Acetone	ND	0.50	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Carbon disulfide	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2-Butanone (MEK)	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.05	"							
1,1,1-Trichloroethane	ND	0.10	"							
1,2-Dichloroethane (EDC)	ND	0.10	"							
Benzene	ND	0.05	"							
Carbon tetrachloride	ND	0.05	"							
Trichloroethene	ND	0.10	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
4-Methyl-2-pentanone (MIBK)	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
2-Hexanone (MBK)	ND	0.20	"							
Dibromochloromethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							

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TRC Environmental - MI
3754 Ranchero Drive
Ann Arbor, MI 48108

Project: TRC101411-12
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11810 - TO-15										
Blank (EJ11810-BLK1)				Prepared & Analyzed: 18-Oct-11						
Chlorobenzene	ND	0.10	ppbv							
Ethylbenzene	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Bromoform	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
4-Ethyltoluene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*53.9*		*"*	*50.2*		*108*	*76-134*			
Surrogate: Toluene-d8	*48.3*		*"*	*49.8*		*97.0*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*51.7*		*"*	*50.2*		*103*	*77-127*			
LCS (EJ11810-BS1)				Prepared & Analyzed: 18-Oct-11						
Dichlorodifluoromethane (F12)	1.69	0.20	ppbv	2.01		84.3	65-135			
Vinyl chloride	1.46	0.05	"	2.02		72.3	65-135			
Chloroethane	1.40	0.10	"	2.00		69.8	65-135			
Trichlorofluoromethane (F11)	1.98	0.10	"	1.99		99.7	65-135			
1,1-Dichloroethene	1.68	0.10	"	2.01		83.9	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	2.15	0.50	"	2.01		107	65-135			
Methylene chloride (Dichloromethane)	1.46	0.10	"	2.01		72.8	65-135			
trans-1,2-Dichloroethene	1.64	0.10	"	2.01		81.6	65-135			
1,1-Dichloroethane	1.61	0.10	"	2.01		80.1	65-135			
cis-1,2-Dichloroethene	1.41	0.10	"	1.99		70.9	65-135			
Chloroform	1.74	0.05	"	2.00		86.6	65-135			
1,1,1-Trichloroethane	1.75	0.10	"	2.02		86.8	65-135			
1,2-Dichloroethane (EDC)	1.71	0.10	"	2.01		85.1	65-135			

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Reported:
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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11810 - TO-15										
LCS (EJ11810-BS1)				Prepared & Analyzed: 18-Oct-11						
Benzene	1.40	0.05	ppbv	2.00		70.0	65-135			
Carbon tetrachloride	1.87	0.05	"	2.01		93.3	65-135			
Trichloroethene	1.74	0.10	"	2.01		86.3	65-135			
Toluene	1.58	0.50	"	2.01		78.8	65-135			
1,1,2-Trichloroethane	1.69	0.10	"	2.02		83.7	65-135			
Tetrachloroethene	1.66	0.10	"	2.01		82.6	65-135			
1,1,1,2-Tetrachloroethane	1.91	0.10	"	2.01		94.9	65-135			
Ethylbenzene	1.80	0.10	"	2.01		89.9	65-135			
m,p-Xylene	4.08	0.10	"	4.02		101	65-135			
o-Xylene	2.18	0.10	"	2.01		109	65-135			
1,1,2,2-Tetrachloroethane	2.19	0.10	"	2.01		109	65-135			
Surrogate: 1,2-Dichloroethane-d4	*50.3*		*"*	*50.2*		*100*	*76-134*			
Surrogate: Toluene-d8	*46.8*		*"*	*49.8*		*93.9*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*56.3*		*"*	*50.2*		*112*	*77-127*			
LCS Dup (EJ11810-BSD1)				Prepared & Analyzed: 18-Oct-11						
Dichlorodifluoromethane (F12)	1.73	0.20	ppbv	2.01		86.1	65-135	2.16	35	
Vinyl chloride	1.63	0.05	"	2.02		80.7	65-135	11.0	35	
Chloroethane	1.50	0.10	"	2.00		74.9	65-135	7.11	35	
Trichlorofluoromethane (F11)	2.02	0.10	"	1.99		102	65-135	2.05	35	
1,1-Dichloroethene	1.81	0.10	"	2.01		90.1	65-135	7.15	35	
1,1,2-Trichlorotrifluoroethane (F113)	2.04	0.50	"	2.01		101	65-135	5.30	35	
Methylene chloride (Dichloromethane)	1.56	0.10	"	2.01		77.7	65-135	6.55	35	
trans-1,2-Dichloroethene	1.72	0.10	"	2.01		85.4	65-135	4.53	35	
1,1-Dichloroethane	1.70	0.10	"	2.01		84.5	65-135	5.27	35	
cis-1,2-Dichloroethene	1.49	0.10	"	1.99		75.1	65-135	5.71	35	
Chloroform	1.80	0.05	"	2.00		89.8	65-135	3.57	35	
1,1,1-Trichloroethane	1.75	0.10	"	2.02		86.9	65-135	0.171	35	
1,2-Dichloroethane (EDC)	1.74	0.10	"	2.01		86.5	65-135	1.63	35	
Benzene	1.46	0.05	"	2.00		72.9	65-135	3.99	35	
Carbon tetrachloride	1.93	0.05	"	2.01		96.2	65-135	3.05	35	
Trichloroethene	1.77	0.10	"	2.01		88.1	65-135	2.05	35	
Toluene	1.58	0.50	"	2.01		78.4	65-135	0.507	35	

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Project: TRC101411-12
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11810 - TO-15										
LCS Dup (EJ11810-BSD1)				Prepared & Analyzed: 18-Oct-11						
1,1,2-Trichloroethane	1.59	0.10	ppbv	2.02		79.0	65-135	5.85	35	
Tetrachloroethene	1.68	0.10	"	2.01		83.3	65-135	0.779	35	
1,1,1,2-Tetrachloroethane	1.92	0.10	"	2.01		95.7	65-135	0.836	35	
Ethylbenzene	1.79	0.10	"	2.01		89.0	65-135	1.00	35	
m,p-Xylene	4.11	0.10	"	4.02		102	65-135	0.684	35	
o-Xylene	2.14	0.10	"	2.01		107	65-135	1.71	35	
1,1,2,2-Tetrachloroethane	2.12	0.10	"	2.01		105	65-135	3.25	35	
Surrogate: 1,2-Dichloroethane-d4	*51.1*		*"*	*50.2*		*102*	*76-134*			
Surrogate: Toluene-d8	*46.5*		*"*	*49.8*		*93.3*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*55.5*		*"*	*50.2*		*110*	*77-127*			
Batch EJ11903 - TO-15										
Blank (EJ11903-BLK1)				Prepared & Analyzed: 19-Oct-11						
Dichlorodifluoromethane (F12)	ND	0.20	ppbv							
Chloromethane	ND	0.10	"							
Dichlorotetrafluoroethane (F114)	ND	0.10	"							
Vinyl chloride	ND	0.05	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
Acetone	ND	0.50	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Carbon disulfide	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2-Butanone (MEK)	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.05	"							
1,1,1-Trichloroethane	ND	0.10	"							
1,2-Dichloroethane (EDC)	ND	0.10	"							

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TRC Environmental - MI	Project: TRC101411-12	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11903 - TO-15										
Blank (EJ11903-BLK1)				Prepared & Analyzed: 19-Oct-11						
Benzene	ND	0.05	ppbv							
Carbon tetrachloride	ND	0.05	"							
Trichloroethene	ND	0.10	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
4-Methyl-2-pentanone (MIBK)	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
2-Hexanone (MBK)	ND	0.20	"							
Dibromochloromethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							
Chlorobenzene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Bromoform	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
4-Ethyltoluene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*54.8*		*"*	*50.2*		*109*	*76-134*			
Surrogate: Toluene-d8	*48.9*		*"*	*49.8*		*98.1*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*52.7*		*"*	*50.2*		*105*	*77-127*			

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TRC Environmental - MI	Project: TRC101411-12	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11903 - TO-15										
LCS (EJ11903-BS1)				Prepared: 19-Oct-11 Analyzed: 20-Oct-11						
Dichlorodifluoromethane (F12)	1.53	0.20	ppbv	2.01		76.3	65-135			
Vinyl chloride	1.55	0.05	"	2.02		76.6	65-135			
Chloroethane	1.46	0.10	"	2.00		73.1	65-135			
Trichlorofluoromethane (F11)	1.92	0.10	"	1.99		96.9	65-135			
1,1-Dichloroethene	1.69	0.10	"	2.01		84.1	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	1.87	0.50	"	2.01		93.1	65-135			
Methylene chloride (Dichloromethane)	1.43	0.10	"	2.01		70.9	65-135			
trans-1,2-Dichloroethene	1.65	0.10	"	2.01		82.2	65-135			
1,1-Dichloroethane	1.55	0.10	"	2.01		77.2	65-135			
cis-1,2-Dichloroethene	1.33	0.10	"	1.99		66.8	65-135			
Chloroform	1.63	0.05	"	2.00		81.3	65-135			
1,1,1-Trichloroethane	1.69	0.10	"	2.02		83.8	65-135			
1,2-Dichloroethane (EDC)	1.67	0.10	"	2.01		83.3	65-135			
Benzene	1.43	0.05	"	2.00		71.5	65-135			
Carbon tetrachloride	1.82	0.05	"	2.01		90.6	65-135			
Trichloroethene	1.96	0.10	"	2.01		97.4	65-135			
Toluene	1.70	0.50	"	2.01		84.8	65-135			
1,1,2-Trichloroethane	1.73	0.10	"	2.02		85.8	65-135			
Tetrachloroethene	1.86	0.10	"	2.01		92.2	65-135			
1,1,1,2-Tetrachloroethane	2.07	0.10	"	2.01		103	65-135			
Ethylbenzene	1.95	0.10	"	2.01		97.3	65-135			
m,p-Xylene	4.27	0.10	"	4.02		106	65-135			
o-Xylene	2.21	0.10	"	2.01		110	65-135			
1,1,2,2-Tetrachloroethane	2.19	0.10	"	2.01		109	65-135			
Surrogate: 1,2-Dichloroethane-d4	*44.7*		*"*	*50.2*		*89.2*	*76-134*			
Surrogate: Toluene-d8	*46.4*		*"*	*49.8*		*93.2*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*53.9*		*"*	*50.2*		*107*	*77-127*			

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11903 - TO-15										
LCS Dup (EJ11903-BSD1)				Prepared: 19-Oct-11 Analyzed: 20-Oct-11						
Dichlorodifluoromethane (F12)	1.79	0.20	ppbv	2.01		88.9	65-135	15.3	35	
Vinyl chloride	1.60	0.05	"	2.02		79.0	65-135	3.11	35	
Chloroethane	1.48	0.10	"	2.00		73.6	65-135	0.749	35	
Trichlorofluoromethane (F11)	2.01	0.10	"	1.99		101	65-135	4.22	35	
1,1-Dichloroethene	1.74	0.10	"	2.01		86.8	65-135	3.09	35	
1,1,2-Trichlorotrifluoroethane (F113)	1.74	0.50	"	2.01		86.4	65-135	7.48	35	
Methylene chloride (Dichloromethane)	1.46	0.10	"	2.01		72.9	65-135	2.70	35	
trans-1,2-Dichloroethene	1.70	0.10	"	2.01		84.5	65-135	2.69	35	
1,1-Dichloroethane	1.59	0.10	"	2.01		79.2	65-135	2.61	35	
cis-1,2-Dichloroethene	1.35	0.10	"	1.99		68.0	65-135	1.79	35	
Chloroform	1.73	0.05	"	2.00		86.5	65-135	6.13	35	
1,1,1-Trichloroethane	1.76	0.10	"	2.02		87.4	65-135	4.17	35	
1,2-Dichloroethane (EDC)	1.69	0.10	"	2.01		84.1	65-135	0.953	35	
Benzene	1.42	0.05	"	2.00		71.1	65-135	0.631	35	
Carbon tetrachloride	1.88	0.05	"	2.01		93.7	65-135	3.35	35	
Trichloroethene	1.96	0.10	"	2.01		97.7	65-135	0.306	35	
Toluene	1.68	0.50	"	2.01		83.8	65-135	1.18	35	
1,1,2-Trichloroethane	1.76	0.10	"	2.02		87.2	65-135	1.55	35	
Tetrachloroethene	1.83	0.10	"	2.01		91.0	65-135	1.30	35	
1,1,1,2-Tetrachloroethane	2.11	0.10	"	2.01		105	65-135	1.86	35	
Ethylbenzene	1.95	0.10	"	2.01		97.0	65-135	0.256	35	
m,p-Xylene	4.41	0.10	"	4.02		110	65-135	3.34	35	
o-Xylene	2.25	0.10	"	2.01		112	65-135	1.48	35	
1,1,2,2-Tetrachloroethane	2.24	0.10	"	2.01		112	65-135	2.39	35	
Surrogate: 1,2-Dichloroethane-d4	*45.8*		"	*50.2*		*91.4*	*76-134*			
Surrogate: Toluene-d8	*46.0*		"	*49.8*		*92.3*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*53.6*		"	*50.2*		*107*	*77-127*			

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3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:20

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

Mobile Geochemistry Inc.
2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date:
H&P Project # TRC10411-12
Outside Lab:

Client: TRC ENVIRONMENTAL, INC.
Collector: JAMES ALFONSI
Page: of
Address: 3754 RANCHERO DRIVE, ANN ARBOR, MI 48108
Client Project # 004313.0000.0000
Project Contact: JAMES ALFONSI
Location:
Email: JALFONSI@TRCSOLUTIONS.COM
Phone: 734-794-0810
Fax:
Turn around time: STANDARD

Geotracker EDF: Yes ☐ No ☐
Global ID:
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☑ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☑ N/A
Temperature: RT

Special Instructions: UPS TRACK#1Z 93T TG1 84 ~~4043 8195~~ 4719 5382 (EP)
1) Reference PO # 37824 on invoice.
2) Level 4 Data Deliverables
~~3) Canister ID B1963, Flow Valve E114~~ J.M.A.

Lab Work Order # E110045

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	BTEX/OXY TPH gas 8260B	g d ext 8015M TPH	418.1 TRPH	VOC's: Full List 8260B	VOC's: Short List/DTSC TO-15	VOC's: SAM, 8260B SAM A	SAM B Naphthalene 8260B	TO-15 Oxygenates 8260B	TO-15 TPHv gas 8260B	TO-15 Ketones 8260B	TO-15 Other 8260B	TO-15 Leak Check Compound	1,1 DFA OTHER Methane	Fixed Gases CO_2 O_2 N_2	CAN#	VAC#
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS												
502 Mohawk -			1554	10/12/11	~~comp~~ grab	6L						X											315	4.3
Bedroom Crawl																								
Space																								
502 Mohawk - Deep	Crawl Space		1559	10/12/11	Comp	6L						X											276	2.0
505 Maumee			1617	10/12/11	Comp	6L						X											339	2.5
507 Maumee			1636	10/12/11	Comp	6L						X											340	2.4

Relinquished by: (Signature) James M. Alfonsi	(company) TRC	Received by: (Signature)	(company) H&P	Date: 10/14/11	Time: 1130
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

H&P Mobile Geochemistry Inc.

25 October 2011

Mr. James Alfonsi
TRC Environmental - MI
3754 Ranchero Drive
Ann Arbor, MI 48108

H&P Project: TRC101411-11
Client Project: 004313.0000.0000 / Tecumseh

Dear Mr. James Alfonsi:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 14-Oct-11 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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TRC Environmental - MI	Project: TRC101411-11	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
610 Mohawk	E110044-01	Vapor	12-Oct-11	14-Oct-11
610 Mohawk Dup	E110044-02	Vapor	12-Oct-11	14-Oct-11

Mobile Geochemistry Inc.

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TRC Environmental - MI	Project: TRC101411-11	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
610 Mohawk (E110044-01) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Dichlorodifluoromethane (F12)	ND	0.20	ppbv	1	EJ11810	18-Oct-11	18-Oct-11	EPA TO-15	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**0.24**	0.10	"	"	"	"	"	"	
Acetone	**1.9**	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Carbon disulfide	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.05	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Benzene	**0.20**	0.05	"	"	"	"	"	"	
Carbon tetrachloride	**0.08**	0.05	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	**0.74**	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	**0.11**	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	**0.35**	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	

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TRC Environmental - MI	Project: TRC101411-11	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
610 Mohawk (E110044-01) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
o-Xylene	**0.14**	0.10	ppbv	1	EJ11810	18-Oct-11	18-Oct-11	EPA TO-15	
Bromoform	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**0.15**	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	**0.16**	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*102 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*93.0 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*		*77-127*	"	"	"	"	
610 Mohawk Dup (E110044-02) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Dichlorodifluoromethane (F12)	ND	0.20	ppbv	1	EJ11804	17-Oct-11	17-Oct-11	EPA TO-15	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**0.22**	0.10	"	"	"	"	"	"	
Acetone	**2.2**	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Carbon disulfide	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.10	"	"	"	"	"	"	
2-Butanone (MEK)	**0.28**	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.10	"	"	"	"	"	"	
Chloroform	ND	0.05	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Benzene	**0.21**	0.05	"	"	"	"	"	"	
Carbon tetrachloride	**0.07**	0.05	"	"	"	"	"	"	

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3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
610 Mohawk Dup (E110044-02) Vapor	**Sampled: 12-Oct-11**	**Received: 14-Oct-11**							
Trichloroethene	ND	0.10	ppbv	1	EJ11804	17-Oct-11	17-Oct-11	EPA TO-15	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	**0.65**	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	ND	0.10	"	"	"	"	"	"	
m,p-Xylene	**0.34**	0.10	"	"	"	"	"	"	
Styrene	ND	0.10	"	"	"	"	"	"	
o-Xylene	**0.13**	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**0.13**	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86.8 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*75.7 %*		*78-125*	"	"	"	"	*S-GC*
Surrogate: 4-Bromofluorobenzene		*99.6 %*		*77-127*	"	"	"	"	

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TRC Environmental - MI
3754 Ranchero Drive
Ann Arbor, MI 48108

Project: TRC101411-11
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
Blank (EJ11804-BLK1)				Prepared & Analyzed: 17-Oct-11						
Dichlorodifluoromethane (F12)	ND	0.20	ppbv							
Chloromethane	ND	0.10	"							
Dichlorotetrafluoroethane (F114)	ND	0.10	"							
Vinyl chloride	ND	0.05	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
Acetone	ND	0.50	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Carbon disulfide	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2-Butanone (MEK)	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.05	"							
1,1,1-Trichloroethane	ND	0.10	"							
1,2-Dichloroethane (EDC)	ND	0.10	"							
Benzene	ND	0.05	"							
Carbon tetrachloride	ND	0.05	"							
Trichloroethene	ND	0.10	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
4-Methyl-2-pentanone (MIBK)	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
2-Hexanone (MBK)	ND	0.20	"							
Dibromochloromethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							

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3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
Blank (EJ11804-BLK1)				Prepared & Analyzed: 17-Oct-11						
Chlorobenzene	ND	0.10	ppbv							
Ethylbenzene	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Bromoform	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
4-Ethyltoluene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*55.3*		*"*	*50.2*		*110*	*76-134*			
Surrogate: Toluene-d8	*48.1*		*"*	*49.8*		*96.6*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*51.6*		*"*	*50.2*		*103*	*77-127*			
LCS (EJ11804-BS1)				Prepared & Analyzed: 17-Oct-11						
Dichlorodifluoromethane (F12)	1.53	0.20	ppbv	2.01		76.0	65-135			
Vinyl chloride	1.77	0.05	"	2.02		87.7	65-135			
Chloroethane	1.65	0.10	"	2.00		82.4	65-135			
Trichlorofluoromethane (F11)	2.05	0.10	"	1.99		103	65-135			
1,1-Dichloroethene	1.90	0.10	"	2.01		94.9	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	2.15	0.50	"	2.01		107	65-135			
Methylene chloride (Dichloromethane)	1.61	0.10	"	2.01		79.9	65-135			
trans-1,2-Dichloroethene	1.88	0.10	"	2.01		93.3	65-135			
1,1-Dichloroethane	1.81	0.10	"	2.01		90.2	65-135			
cis-1,2-Dichloroethene	1.60	0.10	"	1.99		80.5	65-135			
Chloroform	1.77	0.05	"	2.00		88.3	65-135			
1,1,1-Trichloroethane	1.79	0.10	"	2.02		88.8	65-135			
1,2-Dichloroethane (EDC)	1.78	0.10	"	2.01		88.5	65-135			

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TRC Environmental - MI	Project: TRC101411-11	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
LCS (EJ11804-BS1)				Prepared & Analyzed: 17-Oct-11						
Benzene	1.50	0.05	ppbv	2.00		75.1	65-135			
Carbon tetrachloride	1.90	0.05	"	2.01		94.8	65-135			
Trichloroethene	1.79	0.10	"	2.01		89.2	65-135			
Toluene	1.66	0.50	"	2.01		82.5	65-135			
1,1,2-Trichloroethane	1.64	0.10	"	2.02		81.5	65-135			
Tetrachloroethene	1.69	0.10	"	2.01		83.8	65-135			
1,1,1,2-Tetrachloroethane	1.91	0.10	"	2.01		95.0	65-135			
Ethylbenzene	1.82	0.10	"	2.01		90.7	65-135			
m,p-Xylene	4.15	0.10	"	4.02		103	65-135			
o-Xylene	2.19	0.10	"	2.01		109	65-135			
1,1,2,2-Tetrachloroethane	2.13	0.10	"	2.01		106	65-135			
Surrogate: 1,2-Dichloroethane-d4	*51.2*		*"*	*50.2*		*102*	*76-134*			
Surrogate: Toluene-d8	*47.1*		*"*	*49.8*		*94.5*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*54.1*		*"*	*50.2*		*108*	*77-127*			
LCS Dup (EJ11804-BSD1)				Prepared & Analyzed: 17-Oct-11						
Dichlorodifluoromethane (F12)	1.49	0.20	ppbv	2.01		74.4	65-135	2.18	35	
Vinyl chloride	1.49	0.05	"	2.02		73.5	65-135	17.7	35	
Chloroethane	1.46	0.10	"	2.00		72.9	65-135	12.2	35	
Trichlorofluoromethane (F11)	1.80	0.10	"	1.99		90.6	65-135	13.0	35	
1,1-Dichloroethene	1.60	0.10	"	2.01		79.7	65-135	17.3	35	
1,1,2-Trichlorotrifluoroethane (F113)	2.04	0.50	"	2.01		102	65-135	5.20	35	
Methylene chloride (Dichloromethane)	1.40	0.10	"	2.01		69.8	65-135	13.6	35	
trans-1,2-Dichloroethene	1.57	0.10	"	2.01		78.1	65-135	17.8	35	
1,1-Dichloroethane	1.46	0.10	"	2.01		72.9	65-135	21.3	35	
cis-1,2-Dichloroethene	1.25	0.10	"	1.99		62.9	65-135	24.6	35	QL-1L
Chloroform	1.57	0.05	"	2.00		78.2	65-135	12.1	35	
1,1,1-Trichloroethane	1.57	0.10	"	2.02		78.1	65-135	12.8	35	
1,2-Dichloroethane (EDC)	1.62	0.10	"	2.01		80.8	65-135	9.13	35	
Benzene	1.31	0.05	"	2.00		65.6	65-135	13.5	35	
Carbon tetrachloride	1.66	0.05	"	2.01		82.6	65-135	13.8	35	
Trichloroethene	1.76	0.10	"	2.01		87.6	65-135	1.80	35	
Toluene	1.57	0.50	"	2.01		78.1	65-135	5.46	35	

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TRC Environmental - MI
3754 Ranchero Drive
Ann Arbor, MI 48108

Project: TRC101411-11
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
LCS Dup (EJ11804-BSD1)				Prepared & Analyzed: 17-Oct-11						
1,1,2-Trichloroethane	1.66	0.10	ppbv	2.02		82.2	65-135	0.849	35	
Tetrachloroethene	1.69	0.10	"	2.01		83.9	65-135	0.0593	35	
1,1,1,2-Tetrachloroethane	1.90	0.10	"	2.01		94.5	65-135	0.525	35	
Ethylbenzene	1.77	0.10	"	2.01		88.0	65-135	3.07	35	
m,p-Xylene	3.94	0.10	"	4.02		98.1	65-135	5.06	35	
o-Xylene	2.03	0.10	"	2.01		101	65-135	7.91	35	
1,1,2,2-Tetrachloroethane	2.08	0.10	"	2.01		104	65-135	2.04	35	
Surrogate: 1,2-Dichloroethane-d4	*46.1*		*"*	*50.2*		*91.9*	*76-134*			
Surrogate: Toluene-d8	*46.7*		*"*	*49.8*		*93.7*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*53.8*		*"*	*50.2*		*107*	*77-127*			
Batch EJ11810 - TO-15										
Blank (EJ11810-BLK1)				Prepared & Analyzed: 18-Oct-11						
Dichlorodifluoromethane (F12)	ND	0.20	ppbv							
Chloromethane	ND	0.10	"							
Dichlorotetrafluoroethane (F114)	ND	0.10	"							
Vinyl chloride	ND	0.05	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
Acetone	ND	0.50	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Carbon disulfide	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2-Butanone (MEK)	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.05	"							
1,1,1-Trichloroethane	ND	0.10	"							
1,2-Dichloroethane (EDC)	ND	0.10	"							

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TRC Environmental - MI	Project: TRC101411-11	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11810 - TO-15										
Blank (EJ11810-BLK1)				Prepared & Analyzed: 18-Oct-11						
Benzene	ND	0.05	ppbv							
Carbon tetrachloride	ND	0.05	"							
Trichloroethene	ND	0.10	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
4-Methyl-2-pentanone (MIBK)	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
2-Hexanone (MBK)	ND	0.20	"							
Dibromochloromethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							
Chlorobenzene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Bromoform	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
4-Ethyltoluene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*53.9*		*"*	*50.2*		*108*	*76-134*			
Surrogate: Toluene-d8	*48.3*		*"*	*49.8*		*97.0*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*51.7*		*"*	*50.2*		*103*	*77-127*			

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TRC Environmental - MI
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Project: TRC101411-11
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11810 - TO-15										
LCS (EJ11810-BS1)				Prepared & Analyzed: 18-Oct-11						
Dichlorodifluoromethane (F12)	1.69	0.20	ppbv	2.01		84.3	65-135			
Vinyl chloride	1.46	0.05	"	2.02		72.3	65-135			
Chloroethane	1.40	0.10	"	2.00		69.8	65-135			
Trichlorofluoromethane (F11)	1.98	0.10	"	1.99		99.7	65-135			
1,1-Dichloroethene	1.68	0.10	"	2.01		83.9	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	2.15	0.50	"	2.01		107	65-135			
Methylene chloride (Dichloromethane)	1.46	0.10	"	2.01		72.8	65-135			
trans-1,2-Dichloroethene	1.64	0.10	"	2.01		81.6	65-135			
1,1-Dichloroethane	1.61	0.10	"	2.01		80.1	65-135			
cis-1,2-Dichloroethene	1.41	0.10	"	1.99		70.9	65-135			
Chloroform	1.74	0.05	"	2.00		86.6	65-135			
1,1,1-Trichloroethane	1.75	0.10	"	2.02		86.8	65-135			
1,2-Dichloroethane (EDC)	1.71	0.10	"	2.01		85.1	65-135			
Benzene	1.40	0.05	"	2.00		70.0	65-135			
Carbon tetrachloride	1.87	0.05	"	2.01		93.3	65-135			
Trichloroethene	1.74	0.10	"	2.01		86.3	65-135			
Toluene	1.58	0.50	"	2.01		78.8	65-135			
1,1,2-Trichloroethane	1.69	0.10	"	2.02		83.7	65-135			
Tetrachloroethene	1.66	0.10	"	2.01		82.6	65-135			
1,1,1,2-Tetrachloroethane	1.91	0.10	"	2.01		94.9	65-135			
Ethylbenzene	1.80	0.10	"	2.01		89.9	65-135			
m,p-Xylene	4.08	0.10	"	4.02		101	65-135			
o-Xylene	2.18	0.10	"	2.01		109	65-135			
1,1,2,2-Tetrachloroethane	2.19	0.10	"	2.01		109	65-135			
Surrogate: 1,2-Dichloroethane-d4	*50.3*		*"*	*50.2*		*100*	*76-134*			
Surrogate: Toluene-d8	*46.8*		*"*	*49.8*		*93.9*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*56.3*		*"*	*50.2*		*112*	*77-127*			

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Ann Arbor, MI 48108

Project: TRC101411-11
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:14

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11810 - TO-15										
LCS Dup (EJ11810-BSD1)				Prepared & Analyzed: 18-Oct-11						
Dichlorodifluoromethane (F12)	1.73	0.20	ppbv	2.01		86.1	65-135	2.16	35	
Vinyl chloride	1.63	0.05	"	2.02		80.7	65-135	11.0	35	
Chloroethane	1.50	0.10	"	2.00		74.9	65-135	7.11	35	
Trichlorofluoromethane (F11)	2.02	0.10	"	1.99		102	65-135	2.05	35	
1,1-Dichloroethene	1.81	0.10	"	2.01		90.1	65-135	7.15	35	
1,1,2-Trichlorotrifluoroethane (F113)	2.04	0.50	"	2.01		101	65-135	5.30	35	
Methylene chloride (Dichloromethane)	1.56	0.10	"	2.01		77.7	65-135	6.55	35	
trans-1,2-Dichloroethene	1.72	0.10	"	2.01		85.4	65-135	4.53	35	
1,1-Dichloroethane	1.70	0.10	"	2.01		84.5	65-135	5.27	35	
cis-1,2-Dichloroethene	1.49	0.10	"	1.99		75.1	65-135	5.71	35	
Chloroform	1.80	0.05	"	2.00		89.8	65-135	3.57	35	
1,1,1-Trichloroethane	1.75	0.10	"	2.02		86.9	65-135	0.171	35	
1,2-Dichloroethane (EDC)	1.74	0.10	"	2.01		86.5	65-135	1.63	35	
Benzene	1.46	0.05	"	2.00		72.9	65-135	3.99	35	
Carbon tetrachloride	1.93	0.05	"	2.01		96.2	65-135	3.05	35	
Trichloroethene	1.77	0.10	"	2.01		88.1	65-135	2.05	35	
Toluene	1.58	0.50	"	2.01		78.4	65-135	0.507	35	
1,1,2-Trichloroethane	1.59	0.10	"	2.02		79.0	65-135	5.85	35	
Tetrachloroethene	1.68	0.10	"	2.01		83.3	65-135	0.779	35	
1,1,1,2-Tetrachloroethane	1.92	0.10	"	2.01		95.7	65-135	0.836	35	
Ethylbenzene	1.79	0.10	"	2.01		89.0	65-135	1.00	35	
m,p-Xylene	4.11	0.10	"	4.02		102	65-135	0.684	35	
o-Xylene	2.14	0.10	"	2.01		107	65-135	1.71	35	
1,1,2,2-Tetrachloroethane	2.12	0.10	"	2.01		105	65-135	3.25	35	
Surrogate: 1,2-Dichloroethane-d4	*51.1*		"	*50.2*		*102*	*76-134*			
Surrogate: Toluene-d8	*46.5*		"	*49.8*		*93.3*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*55.5*		"	*50.2*		*110*	*77-127*			

Mobile Geochemistry Inc.

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TRC Environmental - MI	Project: TRC101411-11	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
QL-1L	The LCS and/or LCSD recoveries fell below the established control specifications for this analyte. Any result for this compound is qualified and should be considered biased low.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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TRC Environmental - MI	Project: TRC101411-11	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:14

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

Mobile Geochemistry Inc.

☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 10/13/12
H&P Project # TRC10141I-11
Outside Lab:

Client: TRC ENVIRONMENTAL, INC.
Address: 3754 RANCHERO DRIVE
ANN ARBOR, MI 48108
Email: JALFONSI@TRCSOLUTIONS.COM

Collector: JAMES ALFONSI
Client Project # 004313.0000.0000
Location:
Phone: 734-794-0810 Fax:

Page: of
Project Contact: JAMES ALFONSI
Turn around time: STANDARD

Geotracker EDF: Yes ☐ No ☐
Global ID:
Excel EDD: Yes ☐ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☑ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☑ N/A
Temperature: RT

Special Instructions: UPS TRACK# 1Z 93T T61 84 4632 0096
1) Reference PO# 37824 on invoice
2) Level 4 Data Deliverable

Lab Work Order # E110044

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☒ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	CAN#	VAC#
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS												
610 Mohawk			10/12/11	1704	Comp	6L						X											280-2.6	
610 Mohawk	Dup-01		1704	10/12/11	Comp	6L						X											329-2.1	

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Jam M. Alf	TRC	S Martin	H&P	10/14/11	1120
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

Attachment 2
Laboratory Analytical Data – 704 Mohawk Street, October-November 2011

H&P Mobile Geochemistry Inc.

25 October 2011

Mr. James Alfonsi
TRC Environmental - MI
3754 Ranchero Drive
Ann Arbor, MI 48108

H&P Project: TRC101411-10
Client Project: 004313.0000.0000 / Tecumseh

Dear Mr. James Alfonsi:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 14-Oct-11 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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TRC Environmental - MI	Project: TRC101411-10	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:39

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
704 Mohawk	E110043-01	Vapor	12-Oct-11	14-Oct-11

Mobile Geochemistry Inc.

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3754 Ranchero Drive
Ann Arbor, MI 48108

Project: TRC101411-10
Project Number: 004313.0000.0000 / Tecumseh
Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:39

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
704 Mohawk (E110043-01) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
1,1-Difluoroethane (LCC)	ND	3600	ppbv	1	EJ11804	17-Oct-11	17-Oct-11	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	0.20	"	"	"	"	"	"	
Chloromethane	ND	0.10	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.10	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.10	"	"	"	"	"	"	
Chloroethane	ND	0.10	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**1.9**	0.10	"	"	"	"	"	"	
Acetone	**8.7**	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.10	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.10	"	"	"	"	"	"	
Carbon disulfide	ND	0.10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	**2.8**	0.10	"	"	"	"	"	"	
1,1-Dichloroethane	**8.0**	0.10	"	"	"	"	"	"	
2-Butanone (MEK)	**0.83**	0.20	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**8.1**	0.10	"	"	"	"	"	"	QL-1L
Chloroform	**0.23**	0.05	"	"	"	"	"	"	
1,1,1-Trichloroethane	**140**	2.0	"	20	"	"	18-Oct-11	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	1	"	"	17-Oct-11	"	
Benzene	**0.07**	0.05	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.05	"	"	"	"	"	"	
Trichloroethene	**480**	2.0	"	20	"	"	18-Oct-11	"	
1,2-Dichloropropane	ND	0.10	"	1	"	"	17-Oct-11	"	
Bromodichloromethane	ND	0.10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.20	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.10	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.10	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.20	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	
Ethylbenzene	**0.78**	0.10	"	"	"	"	"	"	
m,p-Xylene	**0.81**	0.10	"	"	"	"	"	"	

Mobile Geochemistry Inc.

2470 Impala Drive
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760-804-9678 Phone
760-804-9159 Fax

TRC Environmental - MI	Project: TRC101411-10	
3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:39

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
704 Mohawk (E110043-01) Vapor Sampled: 12-Oct-11 Received: 14-Oct-11									
Styrene	ND	0.10	ppbv	1	EJ11804	17-Oct-11	17-Oct-11	EPA TO-15	
o-Xylene	**0.34**	0.10	"	"	"	"	"	"	
Bromoform	ND	0.10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.10	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**0.11**	0.10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.10	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.10	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.20	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*95.8 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*77-127*	"	"	"	"	

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3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:39

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
Blank (EJ11804-BLK1)				Prepared & Analyzed: 17-Oct-11						
1,1-Difluoroethane (LCC)	ND	3600	ppbv							
Dichlorodifluoromethane (F12)	ND	0.20	"							
Chloromethane	ND	0.10	"							
Dichlorotetrafluoroethane (F114)	ND	0.10	"							
Vinyl chloride	ND	0.05	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
Acetone	ND	0.50	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Carbon disulfide	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2-Butanone (MEK)	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.05	"							
1,1,1-Trichloroethane	ND	0.10	"							
1,2-Dichloroethane (EDC)	ND	0.10	"							
Benzene	ND	0.05	"							
Carbon tetrachloride	ND	0.05	"							
Trichloroethene	ND	0.10	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
4-Methyl-2-pentanone (MIBK)	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
2-Hexanone (MBK)	ND	0.20	"							
Dibromochloromethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							

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Project: TRC101411-10
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Project Manager: Mr. James Alfonsi

Reported:
25-Oct-11 09:39

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
Blank (EJ11804-BLK1)				Prepared & Analyzed: 17-Oct-11						
1,1,1,2-Tetrachloroethane	ND	0.10	ppbv							
Chlorobenzene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Bromoform	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
4-Ethyltoluene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*55.3*		*"*	*50.2*		*110*	*76-134*			
Surrogate: Toluene-d8	*48.1*		*"*	*49.8*		*96.6*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*51.6*		*"*	*50.2*		*103*	*77-127*			
LCS (EJ11804-BS1)				Prepared & Analyzed: 17-Oct-11						
Dichlorodifluoromethane (F12)	1.53	0.20	ppbv	2.01		76.0	65-135			
Vinyl chloride	1.77	0.05	"	2.02		87.7	65-135			
Chloroethane	1.65	0.10	"	2.00		82.4	65-135			
Trichlorofluoromethane (F11)	2.05	0.10	"	1.99		103	65-135			
1,1-Dichloroethene	1.90	0.10	"	2.01		94.9	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	2.15	0.50	"	2.01		107	65-135			
Methylene chloride (Dichloromethane)	1.61	0.10	"	2.01		79.9	65-135			
trans-1,2-Dichloroethene	1.88	0.10	"	2.01		93.3	65-135			
1,1-Dichloroethane	1.81	0.10	"	2.01		90.2	65-135			
cis-1,2-Dichloroethene	1.60	0.10	"	1.99		80.5	65-135			
Chloroform	1.77	0.05	"	2.00		88.3	65-135			
1,1,1-Trichloroethane	1.79	0.10	"	2.02		88.8	65-135			

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Reported:
25-Oct-11 09:39

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
LCS (EJ11804-BS1)				Prepared & Analyzed: 17-Oct-11						
1,2-Dichloroethane (EDC)	1.78	0.10	ppbv	2.01		88.5	65-135			
Benzene	1.50	0.05	"	2.00		75.1	65-135			
Carbon tetrachloride	1.90	0.05	"	2.01		94.8	65-135			
Trichloroethene	1.79	0.10	"	2.01		89.2	65-135			
Toluene	1.66	0.50	"	2.01		82.5	65-135			
1,1,2-Trichloroethane	1.64	0.10	"	2.02		81.5	65-135			
Tetrachloroethene	1.69	0.10	"	2.01		83.8	65-135			
1,1,1,2-Tetrachloroethane	1.91	0.10	"	2.01		95.0	65-135			
Ethylbenzene	1.82	0.10	"	2.01		90.7	65-135			
m,p-Xylene	4.15	0.10	"	4.02		103	65-135			
o-Xylene	2.19	0.10	"	2.01		109	65-135			
1,1,2,2-Tetrachloroethane	2.13	0.10	"	2.01		106	65-135			
Surrogate: 1,2-Dichloroethane-d4	*51.2*		*"*	*50.2*		*102*	*76-134*			
Surrogate: Toluene-d8	*47.1*		*"*	*49.8*		*94.5*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*54.1*		*"*	*50.2*		*108*	*77-127*			
LCS Dup (EJ11804-BSD1)				Prepared & Analyzed: 17-Oct-11						
Dichlorodifluoromethane (F12)	1.49	0.20	ppbv	2.01		74.4	65-135	2.18	35	
Vinyl chloride	1.49	0.05	"	2.02		73.5	65-135	17.7	35	
Chloroethane	1.46	0.10	"	2.00		72.9	65-135	12.2	35	
Trichlorofluoromethane (F11)	1.80	0.10	"	1.99		90.6	65-135	13.0	35	
1,1-Dichloroethene	1.60	0.10	"	2.01		79.7	65-135	17.3	35	
1,1,2-Trichlorotrifluoroethane (F113)	2.04	0.50	"	2.01		102	65-135	5.20	35	
Methylene chloride (Dichloromethane)	1.40	0.10	"	2.01		69.8	65-135	13.6	35	
trans-1,2-Dichloroethene	1.57	0.10	"	2.01		78.1	65-135	17.8	35	
1,1-Dichloroethane	1.46	0.10	"	2.01		72.9	65-135	21.3	35	
cis-1,2-Dichloroethene	1.25	0.10	"	1.99		62.9	65-135	24.6	35	QL-1L
Chloroform	1.57	0.05	"	2.00		78.2	65-135	12.1	35	
1,1,1-Trichloroethane	1.57	0.10	"	2.02		78.1	65-135	12.8	35	
1,2-Dichloroethane (EDC)	1.62	0.10	"	2.01		80.8	65-135	9.13	35	
Benzene	1.31	0.05	"	2.00		65.6	65-135	13.5	35	
Carbon tetrachloride	1.66	0.05	"	2.01		82.6	65-135	13.8	35	
Trichloroethene	1.76	0.10	"	2.01		87.6	65-135	1.80	35	

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3754 Ranchero Drive	Project Number: 004313.0000.0000 / Tecumseh	Reported:
Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:39

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ11804 - TO-15										
LCS Dup (EJ11804-BSD1)				Prepared & Analyzed: 17-Oct-11						
Toluene	1.57	0.50	ppbv	2.01		78.1	65-135	5.46	35	
1,1,2-Trichloroethane	1.66	0.10	"	2.02		82.2	65-135	0.849	35	
Tetrachloroethene	1.69	0.10	"	2.01		83.9	65-135	0.0593	35	
1,1,1,2-Tetrachloroethane	1.90	0.10	"	2.01		94.5	65-135	0.525	35	
Ethylbenzene	1.77	0.10	"	2.01		88.0	65-135	3.07	35	
m,p-Xylene	3.94	0.10	"	4.02		98.1	65-135	5.06	35	
o-Xylene	2.03	0.10	"	2.01		101	65-135	7.91	35	
1,1,2,2-Tetrachloroethane	2.08	0.10	"	2.01		104	65-135	2.04	35	
Surrogate: 1,2-Dichloroethane-d4	*46.1*		"	*50.2*		*91.9*	*76-134*			
Surrogate: Toluene-d8	*46.7*		"	*49.8*		*93.7*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*53.8*		"	*50.2*		*107*	*77-127*			

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Ann Arbor, MI 48108	Project Manager: Mr. James Alfonsi	25-Oct-11 09:39

Notes and Definitions

QL-1L	The LCS and/or LCSD recoveries fell below the established control specifications for this analyte. Any result for this compound is qualified and should be considered biased low.
QL-1L	The LCS and/or LCSD recoveries fell below the established control specifications for this analyte. Any result for this compound is qualified and should be considered biased low.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

Mobile Geochemistry Inc.
☑ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 10/13/12
H&P Project # TRC10141I-10
Outside Lab:

Client: TRC ENVIRONMENTAL, INC.
Address: 3754 RANCHERO DRIVE, ANN ARBOR, MI 48108
Email: JALFONSI@TRCSOLUTIONS.COM
Collector: JAMES ALFONSI
Client Project # 004313.0000.0000
Location:
Phone: 734-794-0810 Fax:
Page: of
Project Contact: JAMES ALFONSI
Turn around time: STANDARD

Geotracker EDF: Yes ☐ No ☐
Global ID:
Excel EDD: Yes ☑ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☑ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☑ N/A
Temperature: RT

Special Instructions: UPS TRACK # 1Z 93T T61 84 4647 5992
1) Reference PO # 37824 on invoice
2) Level 4 Data Deliverables
3) Excel EDD

10/25/11
1,1 DFA used as Leakcheck

Lab Work Order # E110043

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☑ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☑ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	CAN # / VA #
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS											
704 Mohawk	System Simple SSD		1710	10/12/11	Grab	6L						X								X			299-1.0

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Jamie M. Alfonsi	TRC	[signature]	H&P	10/14/11	1115
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

H&P Mobile Geochemistry Inc.

30 November 2011

Ms. Stacy Metz
TRC Environmental - MI
1540 Eisenhower Place
Ann Arbor, MI 48108

H&P Project: TRC111711-13
Client Project: 02751.19 Task 3 / TPC Residential VI

Dear Ms. Stacy Metz:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 17-Nov-11 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

J Villarreal

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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TRC Environmental - MI	Project: TRC111711-13	
1540 Eisenhower Place	Project Number: 02751.19 Task 3 / TPC Residential VI	Reported:
Ann Arbor, MI 48108	Project Manager: Ms. Stacy Metz	30-Nov-11 12:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
704 Mohawk - Indoor Air	E111070-01	Vapor	14-Nov-11	17-Nov-11
704 Mohawk - Soil Gas	E111070-02	Vapor	14-Nov-11	17-Nov-11

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Project: TRC111711-13
Project Number: 02751.19 Task 3 / TPC Residential VI
Project Manager: Ms. Stacy Metz

Reported:
30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
704 Mohawk - Indoor Air (E111070-01) Vapor	**Sampled: 14-Nov-11**	**Received: 17-Nov-11**							
Dichlorodifluoromethane (F12)	ND	0.40	ppbv	2	EK12301	21-Nov-11	22-Nov-11	EPA TO-15	
Chloromethane	ND	0.20	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	0.20	"	"	"	"	"	"	
Vinyl chloride	ND	0.10	"	"	"	"	"	"	
Bromomethane	ND	0.20	"	"	"	"	"	"	
Chloroethane	ND	0.20	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	**0.21**	0.20	"	"	"	"	"	"	
Acetone	**9.3**	1.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	1.0	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.20	"	"	"	"	"	"	
Carbon disulfide	ND	0.20	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.20	"	"	"	"	"	"	
2-Butanone (MEK)	ND	0.40	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.20	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.20	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.20	"	"	"	"	"	"	
Benzene	**0.19**	0.10	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.20	"	"	"	"	"	"	
Bromodichloromethane	ND	0.20	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	0.40	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.20	"	"	"	"	"	"	
Toluene	**1.9**	1.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.20	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	0.40	"	"	"	"	"	"	
Dibromochloromethane	ND	0.20	"	"	"	"	"	"	
Tetrachloroethene	ND	0.20	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.20	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
Chlorobenzene	ND	0.20	"	"	"	"	"	"	
Ethylbenzene	ND	0.20	"	"	"	"	"	"	
m,p-Xylene	ND	0.20	"	"	"	"	"	"	
Styrene	ND	0.20	"	"	"	"	"	"	

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TRC Environmental - MI	Project: TRC111711-13	
1540 Eisenhower Place	Project Number: 02751.19 Task 3 / TPC Residential VI	Reported:
Ann Arbor, MI 48108	Project Manager: Ms. Stacy Metz	30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
704 Mohawk - Indoor Air (E111070-01) Vapor Sampled: 14-Nov-11 Received: 17-Nov-11									
o-Xylene	ND	0.20	ppbv	2	EK12301	21-Nov-11	22-Nov-11	EPA TO-15	
Bromoform	ND	0.20	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.20	"	"	"	"	"	"	
4-Ethyltoluene	ND	0.20	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.20	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.20	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.20	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.40	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*103 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*107 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*		*77-127*	"	"	"	"	
704 Mohawk - Soil Gas (E111070-02) Vapor Sampled: 14-Nov-11 Received: 17-Nov-11									
1,1-Difluoroethane (LCC)	ND	3600	ppbv	20	EK12203	21-Nov-11	21-Nov-11	EPA TO-15	
Dichlorodifluoromethane (F12)	ND	4.0	"	"	"	"	"	"	
Chloromethane	ND	2.0	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	2.0	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Bromomethane	ND	2.0	"	"	"	"	"	"	
Chloroethane	ND	2.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	2.0	"	"	"	"	"	"	
Acetone	ND	10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	2.0	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	10	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	2.0	"	"	"	"	"	"	
Carbon disulfide	ND	2.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	**4.2**	2.0	"	"	"	"	"	"	
1,1-Dichloroethane	**11**	2.0	"	"	"	"	"	"	
2-Butanone (MEK)	ND	4.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**14**	2.0	"	"	"	"	"	"	
Chloroform	ND	1.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	**140**	2.0	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	2.0	"	"	"	"	"	"	
Benzene	ND	1.0	"	"	"	"	"	"	

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Ann Arbor, MI 48108	Project Manager: Ms. Stacy Metz	30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
704 Mohawk - Soil Gas (E111070-02) Vapor Sampled: 14-Nov-11 Received: 17-Nov-11									
Carbon tetrachloride	ND	1.0	ppbv	20	EK12203	21-Nov-11	21-Nov-11	EPA TO-15	
Trichloroethene	**620**	4.0	"	40	"	"	"	"	
1,2-Dichloropropane	ND	2.0	"	20	"	"	"	"	
Bromodichloromethane	ND	2.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	2.0	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	4.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	2.0	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	2.0	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	4.0	"	"	"	"	"	"	
Dibromochloromethane	ND	2.0	"	"	"	"	"	"	
Tetrachloroethene	ND	2.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	2.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	2.0	"	"	"	"	"	"	
Chlorobenzene	ND	2.0	"	"	"	"	"	"	
Ethylbenzene	ND	2.0	"	"	"	"	"	"	
m,p-Xylene	ND	2.0	"	"	"	"	"	"	
Styrene	ND	2.0	"	"	"	"	"	"	
o-Xylene	ND	2.0	"	"	"	"	"	"	
Bromoform	ND	2.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	2.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	2.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	2.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	2.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	2.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	2.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	2.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	2.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.0	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*101 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*103 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*100 %*		*77-127*	"	"	"	"	

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Project Manager: Ms. Stacy Metz

Reported:
30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK12203 - TO-15										
Blank (EK12203-BLK1)				Prepared & Analyzed: 21-Nov-11						
1,1-Difluoroethane (LCC)	ND	3600	ppbv							
Dichlorodifluoromethane (F12)	ND	0.20	"							
Chloromethane	ND	0.10	"							
Dichlorotetrafluoroethane (F114)	ND	0.10	"							
Vinyl chloride	ND	0.050	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
Acetone	ND	0.50	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Carbon disulfide	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2-Butanone (MEK)	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.050	"							
1,1,1-Trichloroethane	ND	0.10	"							
1,2-Dichloroethane (EDC)	ND	0.10	"							
Benzene	ND	0.050	"							
Carbon tetrachloride	ND	0.050	"							
Trichloroethene	ND	0.10	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
4-Methyl-2-pentanone (MIBK)	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
2-Hexanone (MBK)	ND	0.20	"							
Dibromochloromethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							

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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK12203 - TO-15										
Blank (EK12203-BLK1)				Prepared & Analyzed: 21-Nov-11						
1,1,1,2-Tetrachloroethane	ND	0.10	ppbv							
Chlorobenzene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Bromoform	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
4-Ethyltoluene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*55.4*		*"*	*50.2*		*110*	*76-134*			
Surrogate: Toluene-d8	*52.2*		*"*	*49.8*		*105*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*48.8*		*"*	*50.2*		*97.1*	*77-127*			
LCS (EK12203-BS1)				Prepared & Analyzed: 21-Nov-11						
Dichlorodifluoromethane (F12)	2.08	0.20	ppbv	2.51		83.0	65-135			
Vinyl chloride	1.58	0.050	"	2.53		62.7	65-135			QL-1L
Chloroethane	1.71	0.10	"	2.50		68.2	65-135			
Trichlorofluoromethane (F11)	1.96	0.10	"	2.48		78.7	65-135			
1,1-Dichloroethene	1.78	0.10	"	2.51		70.7	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	1.98	0.50	"	2.51		78.9	65-135			
Methylene chloride (Dichloromethane)	1.75	0.10	"	2.51		69.6	65-135			
trans-1,2-Dichloroethene	1.88	0.10	"	2.51		74.7	65-135			
1,1-Dichloroethane	1.86	0.10	"	2.51		74.1	65-135			
cis-1,2-Dichloroethene	1.74	0.10	"	2.49		70.0	65-135			
Chloroform	1.82	0.050	"	2.50		72.5	65-135			
1,1,1-Trichloroethane	1.90	0.10	"	2.52		75.4	65-135			

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30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK12203 - TO-15										
LCS (EK12203-BS1)				Prepared & Analyzed: 21-Nov-11						
1,2-Dichloroethane (EDC)	1.82	0.10	ppbv	2.51		72.4	65-135			
Benzene	1.78	0.050	"	2.50		71.2	65-135			
Carbon tetrachloride	1.94	0.050	"	2.51		77.4	65-135			
Trichloroethene	1.83	0.10	"	2.51		72.8	65-135			
Toluene	1.70	0.50	"	2.51		67.5	65-135			
1,1,2-Trichloroethane	1.73	0.10	"	2.52		68.5	65-135			
Tetrachloroethene	1.72	0.10	"	2.52		68.2	65-135			
1,1,1,2-Tetrachloroethane	1.81	0.10	"	2.51		72.1	65-135			
Ethylbenzene	1.96	0.10	"	2.51		77.9	65-135			
m,p-Xylene	4.40	0.10	"	5.03		87.5	65-135			
o-Xylene	2.34	0.10	"	2.51		93.2	65-135			
1,1,2,2-Tetrachloroethane	2.36	0.10	"	2.51		94.0	65-135			
Surrogate: 1,2-Dichloroethane-d4	*54.6*		*"*	*50.2*		*109*	*76-134*			
Surrogate: Toluene-d8	*50.3*		*"*	*49.8*		*101*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*54.3*		*"*	*50.2*		*108*	*77-127*			
LCS Dup (EK12203-BSD1)				Prepared & Analyzed: 21-Nov-11						
Dichlorodifluoromethane (F12)	2.25	0.20	ppbv	2.51		89.5	65-135	7.53	35	
Vinyl chloride	1.89	0.050	"	2.53		74.7	65-135	17.5	35	
Chloroethane	1.92	0.10	"	2.50		76.6	65-135	11.6	35	
Trichlorofluoromethane (F11)	2.06	0.10	"	2.48		82.8	65-135	4.99	35	
1,1-Dichloroethene	1.93	0.10	"	2.51		76.8	65-135	8.21	35	
1,1,2-Trichlorotrifluoroethane (F113)	2.07	0.50	"	2.51		82.2	65-135	4.10	35	
Methylene chloride (Dichloromethane)	1.98	0.10	"	2.51		78.6	65-135	12.2	35	
trans-1,2-Dichloroethene	1.98	0.10	"	2.51		78.9	65-135	5.54	35	
1,1-Dichloroethane	2.04	0.10	"	2.51		81.5	65-135	9.53	35	
cis-1,2-Dichloroethene	2.11	0.10	"	2.49		85.0	65-135	19.4	35	
Chloroform	1.83	0.050	"	2.50		73.0	65-135	0.714	35	
1,1,1-Trichloroethane	1.88	0.10	"	2.52		74.5	65-135	1.22	35	
1,2-Dichloroethane (EDC)	1.86	0.10	"	2.51		74.2	65-135	2.45	35	
Benzene	1.78	0.050	"	2.50		71.4	65-135	0.224	35	
Carbon tetrachloride	1.97	0.050	"	2.51		78.5	65-135	1.33	35	
Trichloroethene	1.89	0.10	"	2.51		75.0	65-135	3.07	35	

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Ann Arbor, MI 48108

Project: TRC111711-13
Project Number: 02751.19 Task 3 / TPC Residential VI
Project Manager: Ms. Stacy Metz

Reported:
30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK12203 - TO-15										
LCS Dup (EK12203-BSD1)				Prepared & Analyzed: 21-Nov-11						
Toluene	1.69	0.50	ppbv	2.51		67.4	65-135	0.236	35	
1,1,2-Trichloroethane	1.84	0.10	"	2.52		73.1	65-135	6.50	35	
Tetrachloroethene	1.70	0.10	"	2.52		67.7	65-135	0.702	35	
1,1,1,2-Tetrachloroethane	1.79	0.10	"	2.51		71.3	65-135	1.17	35	
Ethylbenzene	2.03	0.10	"	2.51		81.1	65-135	3.91	35	
m,p-Xylene	4.54	0.10	"	5.03		90.4	65-135	3.27	35	
o-Xylene	2.34	0.10	"	2.51		93.2	65-135	0.0428	35	
1,1,2,2-Tetrachloroethane	2.36	0.10	"	2.51		94.1	65-135	0.169	35	
Surrogate: 1,2-Dichloroethane-d4	*52.8*		*"*	*50.2*		*105*	*76-134*			
Surrogate: Toluene-d8	*50.5*		*"*	*49.8*		*101*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*54.3*		*"*	*50.2*		*108*	*77-127*			
Batch EK12301 - TO-15										
Blank (EK12301-BLK1)				Prepared & Analyzed: 22-Nov-11						
Dichlorodifluoromethane (F12)	ND	0.20	ppbv							
Chloromethane	ND	0.10	"							
Dichlorotetrafluoroethane (F114)	ND	0.10	"							
Vinyl chloride	ND	0.050	"							
Bromomethane	ND	0.10	"							
Chloroethane	ND	0.10	"							
Trichlorofluoromethane (F11)	ND	0.10	"							
Acetone	ND	0.50	"							
1,1-Dichloroethene	ND	0.10	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	0.50	"							
Methylene chloride (Dichloromethane)	ND	0.10	"							
Carbon disulfide	ND	0.10	"							
trans-1,2-Dichloroethene	ND	0.10	"							
1,1-Dichloroethane	ND	0.10	"							
2-Butanone (MEK)	ND	0.20	"							
cis-1,2-Dichloroethene	ND	0.10	"							
Chloroform	ND	0.050	"							
1,1,1-Trichloroethane	ND	0.10	"							

Mobile Geochemistry Inc.

2470 Impala Drive
Carlsbad, CA 92010
760-804-9678 Phone
760-804-9159 Fax

TRC Environmental - MI	Project: TRC111711-13	
1540 Eisenhower Place	Project Number: 02751.19 Task 3 / TPC Residential VI	Reported:
Ann Arbor, MI 48108	Project Manager: Ms. Stacy Metz	30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK12301 - TO-15										
Blank (EK12301-BLK1)				Prepared & Analyzed: 22-Nov-11						
1,2-Dichloroethane (EDC)	ND	0.10	ppbv							
Benzene	ND	0.050	"							
Carbon tetrachloride	ND	0.050	"							
Trichloroethene	ND	0.10	"							
1,2-Dichloropropane	ND	0.10	"							
Bromodichloromethane	ND	0.10	"							
cis-1,3-Dichloropropene	ND	0.10	"							
4-Methyl-2-pentanone (MIBK)	ND	0.20	"							
trans-1,3-Dichloropropene	ND	0.10	"							
Toluene	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.10	"							
2-Hexanone (MBK)	ND	0.20	"							
Dibromochloromethane	ND	0.10	"							
Tetrachloroethene	ND	0.10	"							
1,2-Dibromoethane (EDB)	ND	0.10	"							
1,1,1,2-Tetrachloroethane	ND	0.10	"							
Chlorobenzene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
m,p-Xylene	ND	0.10	"							
Styrene	ND	0.10	"							
o-Xylene	ND	0.10	"							
Bromoform	ND	0.10	"							
1,1,2,2-Tetrachloroethane	ND	0.10	"							
4-Ethyltoluene	ND	0.10	"							
1,3,5-Trimethylbenzene	ND	0.10	"							
1,2,4-Trimethylbenzene	ND	0.10	"							
1,3-Dichlorobenzene	ND	0.10	"							
1,4-Dichlorobenzene	ND	0.10	"							
1,2-Dichlorobenzene	ND	0.10	"							
1,2,4-Trichlorobenzene	ND	0.10	"							
Hexachlorobutadiene	ND	0.20	"							
Surrogate: 1,2-Dichloroethane-d4	*54.0*		"	*50.2*		*108*	*76-134*			
Surrogate: Toluene-d8	*52.3*		"	*49.8*		*105*	*78-125*			

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TRC Environmental - MI
1540 Eisenhower Place
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Project: TRC111711-13
Project Number: 02751.19 Task 3 / TPC Residential VI
Project Manager: Ms. Stacy Metz

Reported:
30-Nov-11 12:20

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK12301 - TO-15										
Blank (EK12301-BLK1)				Prepared & Analyzed: 22-Nov-11						
Surrogate: 4-Bromofluorobenzene	*49.7*		*ppbv*	*50.2*		*98.9*	*77-127*			
LCS (EK12301-BS1)				Prepared & Analyzed: 22-Nov-11						
Dichlorodifluoromethane (F12)	1.92	0.20	ppbv	2.51		76.5	65-135			
Vinyl chloride	1.55	0.050	"	2.53		61.2	65-135			QL-1L
Chloroethane	1.64	0.10	"	2.50		65.3	65-135			
Trichlorofluoromethane (F11)	1.90	0.10	"	2.48		76.7	65-135			
1,1-Dichloroethene	1.76	0.10	"	2.51		70.1	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	1.89	0.50	"	2.51		75.1	65-135			
Methylene chloride (Dichloromethane)	1.72	0.10	"	2.51		68.3	65-135			
trans-1,2-Dichloroethene	1.73	0.10	"	2.51		69.0	65-135			
1,1-Dichloroethane	1.91	0.10	"	2.51		76.1	65-135			
cis-1,2-Dichloroethene	2.10	0.10	"	2.49		84.4	65-135			
Chloroform	1.77	0.050	"	2.50		70.8	65-135			
1,1,1-Trichloroethane	1.84	0.10	"	2.52		73.1	65-135			
1,2-Dichloroethane (EDC)	1.79	0.10	"	2.51		71.5	65-135			
Benzene	1.72	0.050	"	2.50		68.6	65-135			
Carbon tetrachloride	1.91	0.050	"	2.51		76.2	65-135			
Trichloroethene	1.93	0.10	"	2.51		76.8	65-135			
Toluene	1.78	0.50	"	2.51		70.8	65-135			
1,1,2-Trichloroethane	1.87	0.10	"	2.52		74.3	65-135			
Tetrachloroethene	1.76	0.10	"	2.52		69.9	65-135			
1,1,1,2-Tetrachloroethane	1.90	0.10	"	2.51		75.5	65-135			
Ethylbenzene	2.08	0.10	"	2.51		82.8	65-135			
m,p-Xylene	4.63	0.10	"	5.03		92.1	65-135			
o-Xylene	2.42	0.10	"	2.51		96.5	65-135			
1,1,2,2-Tetrachloroethane	2.44	0.10	"	2.51		97.3	65-135			
Surrogate: 1,2-Dichloroethane-d4	*50.8*		*"*	*50.2*		*101*	*76-134*			
Surrogate: Toluene-d8	*50.4*		*"*	*49.8*		*101*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*52.3*		*"*	*50.2*		*104*	*77-127*			

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Project: TRC111711-13
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Project Manager: Ms. Stacy Metz

Reported:
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Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK12301 - TO-15										
LCS Dup (EK12301-BSD1)				Prepared & Analyzed: 22-Nov-11						
Dichlorodifluoromethane (F12)	2.22	0.20	ppbv	2.51		88.3	65-135	14.4	35	
Vinyl chloride	2.15	0.050	"	2.53		85.0	65-135	32.6	35	
Chloroethane	2.02	0.10	"	2.50		80.8	65-135	21.2	35	
Trichlorofluoromethane (F11)	2.17	0.10	"	2.48		87.2	65-135	12.9	35	
1,1-Dichloroethene	1.92	0.10	"	2.51		76.5	65-135	8.80	35	
1,1,2-Trichlorotrifluoroethane (F113)	2.07	0.50	"	2.51		82.2	65-135	9.10	35	
Methylene chloride (Dichloromethane)	1.89	0.10	"	2.51		75.1	65-135	9.49	35	
trans-1,2-Dichloroethene	1.94	0.10	"	2.51		77.1	65-135	11.1	35	
1,1-Dichloroethane	1.99	0.10	"	2.51		79.4	65-135	4.21	35	
cis-1,2-Dichloroethene	2.27	0.10	"	2.49		91.4	65-135	7.96	35	
Chloroform	1.90	0.050	"	2.50		75.8	65-135	6.87	35	
1,1,1-Trichloroethane	1.95	0.10	"	2.52		77.3	65-135	5.54	35	
1,2-Dichloroethane (EDC)	1.91	0.10	"	2.51		76.3	65-135	6.42	35	
Benzene	1.81	0.050	"	2.50		72.2	65-135	5.17	35	
Carbon tetrachloride	2.06	0.050	"	2.51		81.9	65-135	7.26	35	
Trichloroethene	1.90	0.10	"	2.51		75.4	65-135	1.83	35	
Toluene	1.75	0.50	"	2.51		69.7	65-135	1.64	35	
1,1,2-Trichloroethane	1.84	0.10	"	2.52		72.9	65-135	1.83	35	
Tetrachloroethene	1.81	0.10	"	2.52		72.0	65-135	3.03	35	
1,1,1,2-Tetrachloroethane	1.94	0.10	"	2.51		77.3	65-135	2.35	35	
Ethylbenzene	2.05	0.10	"	2.51		81.7	65-135	1.41	35	
m,p-Xylene	4.54	0.10	"	5.03		90.3	65-135	1.94	35	
o-Xylene	2.38	0.10	"	2.51		94.6	65-135	1.92	35	
1,1,2,2-Tetrachloroethane	2.38	0.10	"	2.51		94.7	65-135	2.74	35	
Surrogate: 1,2-Dichloroethane-d4	*54.0*		*"*	*50.2*		*108*	*76-134*			
Surrogate: Toluene-d8	*51.4*		*"*	*49.8*		*103*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*52.0*		*"*	*50.2*		*103*	*77-127*			

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1540 Eisenhower Place	Project Number: 02751.19 Task 3 / TPC Residential VI	Reported:
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Notes and Definitions

QL-1L	The LCS and/or LCSD recoveries fell below the established control specifications for this analyte. Any result for this compound is qualified and should be considered biased low.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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TRC Environmental - MI	Project: TRC111711-13	
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Ann Arbor, MI 48108	Project Manager: Ms. Stacy Metz	30-Nov-11 12:20

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

H&P Mobile Geochemistry Inc.
2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
1855 Coronado Ave., Signal Hill, CA 90755 • ph 800.834.9888

Date: 11/14/11 – 11/15/11
H&P Project # TRC1117-11-13
Outside Lab:

Client: TRC Environmental Corp. | Collector: S. Metz | Page: 1 of 1
Address: 1540 Eisenhower Place, Ann Arbor MI 48108 | Client Project # 02751.19 task 3 | Project Contact: Stacy Metz
Location: TPC Residential V1 – Birchfield
Email: smetz@trcsolutions.com | Phone: 734 585 7825 | Fax: 734 971 9022 | Turn around time: Standard

Geotracker EDF: Yes ☐ No ☒ (N/A)
Global ID:
Excel EDD: Yes ☒ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☑ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☑ N/A
Temperature: NT

Special Instructions: Results in ppbv
Level 4 Data Package
E111070
Fedex # 7954 1003 2809
IA = Indoor Air
SG = Soil gas
Lab Work Order # 37824

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☒ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☐ TO-15	Oxygenates ☐ 8260B ☐ TO-15	TPHv gas ☐ 8260B ☐ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ☐ 8260B ☐ TO-15	Leak Check Compound ☒ 1,1 DFA ☐ OTHER	Methane	Fixed Gases ☐ CO_2 ☐ O_2 ☐ N_2	CAN#	VAC#
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS												
704 Mohawk – Indoor Air		NA	11:40–11:49	11/14–11/15	IA	6L Summa	1					1											339-3.3	
704 Mohawk – Soil Gas		NA	12:05	11/14/11	SG	6L Summa	1					1								1			299-9	

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
[signature]	TRC	Fed Ex		11/15/11	1600
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
		[signature]	H&P	11/12/11	1045
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup