



Total Volatile Petroleum Hydrocarbons (Gasoline) Case Narrative

NMED Hazardous Waste Bureau

KAFB - BFF

Work Order Number: 1105144

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 05/11/2011.

The water sample was free of head space prior to analysis.

The sample had a pH < 2 at the time of analysis.

2. The sample was prepared and analyzed according to SW-846, 3rd Edition procedures. Specifically, the water sample was prepared by heating and purging 5ml using purge and trap procedures based on Method 5030B. The calibration curve was also prepared using the heated purge.
3. The sample was analyzed using a GC with a DB-624 capillary column and a flame ionization detector (FID) according to Standard Operating Procedure 425 Revision 15 generally based on SW-846 Methods 8000C and 8015C. The procedures are based on these methods because SW-846 does not have a specific method for TVPH or gasoline range organics. The only true modification from these methods is that TVPH is a multicomponent mixture and is quantitated by summing the entire range, rather than individual peaks. The carbon range integrated in this test extends from C₆ to C₁₀. All positive results in this range were quantitated using the responses from the initial calibration curve using the external standard technique.
4. All initial and continuing calibration criteria were met.
5. The method blank associated with this project was below the MDL for gasoline range organics.
6. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria.



7. Sample 1105144-2 was designated as the quality control sample for this analysis.

All matrix spike and matrix spike duplicate recoveries and RPDs were within the acceptance criteria.

8. The sample was extracted and analyzed within the established holding time.

9. All surrogate recoveries were within acceptance criteria.

10. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in Standard Operating Procedure 939 Revision 4.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Mindy Norton
Mindy Norton
Organics Primary Data Reviewer

05-16-11
Date

Brendon Howard
Brendon Howard
Organics Final Data Reviewer

5/16/11
Date



ALS
Data Qualifier Flags
Fuels

- G:** This flag indicates that a pattern resembling gasoline was detected in this sample.
- D:** This flag indicates that a pattern resembling diesel was detected in this sample.
- M:** This flag indicates that a pattern resembling motor oil was detected in this sample.
- H:** This flag indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.
- L:** This flag indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.
- Z:** This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:
gasoline
JP-4
JP-8
diesel
mineral spirits
motor oil
Stoddard solvent
bunker C

Multiple flags may be used to indicate the presence of more than one product or component.



ALS
Data Qualifier Flags
Chromatography and Mass Spectrometry

- U or ND:** This flag indicates that the compound was analyzed for but not detected.
- J:** This flag indicates an estimated value. This flag is used as follows : (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the data indicate the presence of a compound that meets the identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.
- B:** This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.
- E:** This flag identifies compounds whose concentration exceeds the upper level of the calibration range.
- A:** This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.
- X:** This flag indicates that the analyte was diluted below an accurate quantitation level.
- *:** This flag indicates that a spike recovery is outside the control criteria.
- +:** This flag indicates that the relative percent difference (RPD) exceeds the control criteria.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1105144

Client Name: NMED Hazardous Waste Bureau

Client Project Name: KAFB - BFF

Client Project Number:

Client PO Number: 10-667-00-13453

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
106062-A	1105144-1		WATER	10-May-11	13:31
106062-B	1105144-2		WATER	10-May-11	13:38
106062-C	1105144-3		WATER	10-May-11	13:36
106062-D	1105144-4		WATER	10-May-11	13:41
106062-E	1105144-5		WATER	10-May-11	13:45
106062-F	1105144-6		WATER	10-May-11	13:49
106062-G	1105144-7		WATER	10-May-11	13:51
106062-H	1105144-8		WATER	10-May-11	13:52
106062-I	1105144-9		WATER	10-May-11	13:53
106062-J	1105144-10		WATER	10-May-11	13:54



CONDITION OF SAMPLE UPON RECEIPT FORM

Client: NMED

Workorder No: 1105144

Project Manager: LPS

Initials: CAS Date: 3/11/11

1. Does this project require any special handling in addition to standard Paragon procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	NONE	<input checked="" type="radio"/> YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible ?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	DROP OFF	<input checked="" type="radio"/> YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	<input checked="" type="radio"/> NO *
9. Are all aqueous non-preserved samples pH 4-9 ?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	N/A	<input checked="" type="radio"/> YES	NO
15. Do perchlorate LCMS-MS samples have headspace? (at least 1/3 of container required)	<input checked="" type="radio"/> N/A	YES	NO
16. Were samples checked for and free from the presence of residual chlorine? (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	<input checked="" type="radio"/> N/A	YES	NO
17. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
18. Were cooler temperatures measured at 0.1-6.0°C?	IR gun used*: <input checked="" type="radio"/> #2 <input type="radio"/> #4	<input checked="" type="radio"/> YES	NO

Cooler #: 1

Temperature (°C): 3,8

No. of custody seals on cooler: 2

External µR/hr reading: 16

Background µR/hr reading: 12

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.
 *1105144-5 (106062-E) had an initial pH=7. At 1025 on 3/11/11, LPS added 0.5mL H₂SO₄ (lot #49245) Final pH < 2

If applicable, was the client contacted? YES / NO / NA Contact: [Signature] Date/Time: 5/12/11

Project Manager Signature / Date: [Signature] 5/12/11

*IR Gun #2: Oakton, SN 29922500201-0066

*IR Gun #4: Oakton, SN 2372220101-0002

FedEx **NEW Package**
Express **US Airbill**

FedEx
Tracking
Number

8758 3193 2332

1 From

Date 5/10/11 Sender's FedEx
Account Number

Sender's Name S. BRANDVEIN Phone 505 222-9504

Company NIED

Address 5500 SW ANOMIC DR NE

Dept./Floor/Suite/Room

City ALBANY State GA ZIP 317109

2 Your Internal Billing Reference

3 To
Recipient's Name L. STEWART Phone 770 490-1511

Company LAB

Address 225 COMMERCE

Dept./Floor/Suite/Room

HOLD Week/day
FedEx location address
FedEx First Overnight

01

HOLD Saturday
FedEx location address
FedEx Priority Overnight and
FedEx First Overnight only
FedEx Day to select locations

31

Use this line for the HOLD location address or for continuation of your shipping address.

City FT. COLLINS State CO ZIP 80524-

2762



8758 3193 2332

2A 15 2A 1105144
FedEx Retrieval Copy

4 Express Package Service

*To meet localities.
For pricing, visit fedex.com.
NOTE: Service order has changed. Please select carefully.
FedEx Express Freight US Adult

Next Business Day

2 or 3 Business Days

06 FedEx First Overnight

49 NEW FedEx 2Day^{AM}

03 FedEx Priority Overnight

20 FedEx Express Saver

05 FedEx Standard Overnight

01 Indirect Signature

02 FedEx Envelope*

03 FedEx Box

04 FedEx Tube

Other

03 FedEx 2Day

03 FedEx 2Day

05 FedEx Express Saver

20 FedEx Express Saver

06 FedEx Envelope*

02 FedEx Pak*

03 FedEx Box

04 FedEx Tube

04 FedEx Tube

Other

5 Packaging

*Declared value limit \$500.

02 FedEx Pak*

03 FedEx Box

04 FedEx Tube

Other

6 Special Handling and Delivery Signature Options

03 SATURDAY DELIVERY

No Signature Required

10 Direct Signature

Indirect Signature

34 Indirect Signature

No 04

06 Dry Ice

No 04

06 Dry Ice



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Gasoline Range Organics

Method SW8015B

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1105144

Client Name: NMED Hazardous Waste Bureau

ClientProject ID: KAFB - BFF

Lab ID: HCG110512-1MB

Sample Matrix: WATER

% Moisture: N/A

Date Collected: N/A

Date Extracted: 12-May-11

Date Analyzed: 12-May-11

Prep Batch: HCG110512-1

QCBatchID: HCG110512-1-1

Run ID: HCG110512-1A

Cleanup: NONE

Basis: N/A

File Name: 04398.dat

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
8006-61-9	GASOLINE RANGE ORGANICS	1	0.1	0.1	0.0069	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	0.0911		0.1	91	74 - 129

Data Package ID: HCG1105144-1

Date Printed: Monday, May 16, 2011

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LIMS Version: 6.482

Gasoline Range Organics

Method SW8015B

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1105144

Client Name: NMED Hazardous Waste Bureau

ClientProject ID: KAFB - BFF

Field ID:	106062-B
Lab ID:	1105144-2

Sample Matrix: WATER

% Moisture: N/A

Date Collected: 10-May-11

Date Extracted: 12-May-11

Date Analyzed: 12-May-11

Prep Method: SW5030 Rev C

Prep Batch: HCG110512-1

QC Batch ID: HCG110512-1-1

Run ID: HCG110512-1A

Cleanup: NONE

Basis: As Received

File Name: 04399.dat

Sample Aliquot: 5 ml

Final Volume: 5 ml

Result Units: MG/L

Clean DF: 1

Analysis ReqCode: 162

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
8006-61-9	GASOLINE RANGE ORGANICS	1	0.1	0.1	0.0069	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	0.0922		0.1	92	74 - 129

Data Package ID: HCG1105144-1

Date Printed: Monday, May 16, 2011

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Gasoline Range Organics

Method SW8015B

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1105144

Client Name: NMED Hazardous Waste Bureau

ClientProject ID: KAFB - BFF

Lab ID: HCG110512-1LCS	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 05/12/2011 Date Analyzed: 05/12/2011 Prep Method: SW5030C	Prep Batch: HCG110512-1 QCBatchID: HCG110512-1-1 Run ID: HCG110512-1A Cleanup: NONE Basis: N/A File Name: 04397.dat	Sample Aliquot: 5 ml Final Volume: 5 ml Result Units: MG/L Clean DF: 1
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CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
8006-61-9	GASOLINE RANGE ORGANICS	1	1.01	0.1		101	79 - 118%

Lab ID: HCG110512-1LCSD	Sample Matrix: WATER % Moisture: N/A Date Collected: N/A Date Extracted: 05/12/2011 Date Analyzed: 05/12/2011 Prep Method: SW5030C	Prep Batch: HCG110512-1 QCBatchID: HCG110512-1-1 Run ID: HCG110512-1A Cleanup: NONE Basis: N/A File Name: 04404.dat	Sample Aliquot: 5 ml Final Volume: 5 ml Result Units: MG/L Clean DF: 1
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CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
8006-61-9	GASOLINE RANGE ORGANICS	1	1.05	0.1		105	20	5

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	0.1	96		97		74 - 129

Data Package ID: HCG1105144-1

Gasoline Range Organics

Method SW8015B

Matrix Spike And Matrix Spike Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1105144

Client Name: NMED Hazardous Waste Bureau

ClientProject ID: KAFB - BFF

Field ID: 106062-B
LabID: 1105144-2MS

Sample Matrix: WATER
 % Moisture: N/A
 Date Collected: 10-May-11
 Date Extracted: 12-May-11
 Date Analyzed: 12-May-11
 Prep Method: SW5030 Rev C

Prep Batch: HCG110512-1
 QCBatchID: HCG110512-1-1
 Run ID: HCG110512-1A
 Cleanup: NONE
 Basis: As Received

Sample Aliquot: 5 ml
 Final Volume: 5 ml
 Result Units: MG/L
 File Name: 04400.dat

CASNO	Target Analyte	Sample Result	Samp Qual	MS Result	MS Qual	Reporting Limit	Spike Added	MS % Rec.	Control Limits
8006-61-9	GASOLINE RANGE ORGANICS	0.1	U	1.04		0.1	1	104	79 - 118%

Field ID: 106062-B
LabID: 1105144-2MSD

Sample Matrix: WATER
 % Moisture: N/A
 Date Collected: 10-May-11
 Date Extracted: 12-May-11
 Date Analyzed: 12-May-11
 Prep Method: SW5030 Rev C

Prep Batch: HCG110512-1
 QCBatchID: HCG110512-1-1
 Run ID: HCG110512-1A
 Cleanup: NONE
 Basis: As Received

Sample Aliquot: 5 ml
 Final Volume: 5 ml
 Result Units: MG/L
 File Name: 04401.dat

CASNO	Target Analyte	MSD Result	MSD Qual	Spike Added	MSD % Rec.	Reporting Limit	RPD Limit	RPD
8006-61-9	GASOLINE RANGE ORGANICS	1.01		1	101	0.1	30	3

Surrogate Recovery MS/MSD

CASNO	Target Analyte	Spike Added	MS % Rec.	MS Flag	MSD % Rec.	MSD Flag	Control Limits
193533-92-5	2,3,4-TRIFLUOROTOLUENE	0.1	98		97		74 - 129

Data Package ID: HCG1105144-1