

Texas Commission on Environmental Quality

Laboratory and Mobile Monitoring Section

P.O. Box 13087

Austin, Texas 78711

(512) 239-1716

Laboratory Analysis Results

ACL Number: 090524

ACL Lead: Karen Bachtel

Region: T04

Date Received: 5/26/2009

Facility(ies) Sampled	City	County	Facility Type
Little Hoss Compressor Station	Godley	Johnson	

Laboratory Procedure(s) Performed:

Analysis: AMOR006

Determination of VOC Canisters by GC/MS Using Modified Method TO-15

Procedure:

Prior to analysis, subatmospheric samples are pressurized to twice the collected volume using a sample dilution system. For analysis, a known volume of a sample is directed from the canister into a multitrapp cryogenic concentrator. Internal standards are added to the sample stream prior to the trap. The concentrated sample is thermally desorbed and carried onto a GC column for separation. The analytical strategy involves using a GC with dual columns that are coupled to a mass selective detector (MSD) and a flame ionization detector (FID). Mass spectra for individual peaks in the total ion chromatogram are then used for target compound identification and quantitation. The fragmentation pattern is compared with stored spectra taken under similar conditions in order to identify the compound. For any given compound, the intensity of the quantitation fragment is compared with the system response to the fragment for known amounts of the compound. This establishes the compound concentration in the sample. For non-target compound peaks which are at least one-half the height of the internal standard, a library search is performed in an attempt to identify the compound solely upon fracture patterns. These tentatively identified compounds (TIC's) are reported as a sample specific footnote. Accurate quantitation of TICs is not possible. The FID is used for the quantitation of ethane, ethylene, acetylene, propylene and propane and identification is based on matching retention times of standards containing known analytes.

Sample(s) Received

Field ID Number: Compressor Station

Laboratory Sample Number: 090524-0001

Sampled by: Damon Armstrong

Sampling Site: Chesapeake Little Hoss Compressor Station

Date & Time Sampled: 05/18/09 11:40:00

Valid Sample: Yes

Comments:

Canister 20331 was used to collect a Summa Grab sample at Little Hoss Compressor Station.

Sample(s) Screening

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As a routine procedure, the data from this (these) sample(s) have been screened. No target compounds were detected at or above the Effects Screening Level. Therefore, the TCEQ's Toxicology Section expects no adverse health effects or odors and will not review the data further. Please note that this analytical technique is not capable of measuring all compounds which might have the potential to cause adverse health effects or odors. For questions on the analytical procedures please contact the laboratory manager at (512)-239-5853. If further health effects evaluation is desired please contact the Toxicology Section at (512)-239-1795

Analyst: Jaydeep Patel
Jaydeep PatelDate: 06/02/09Reviewed By: Karen Bachtel
Karen BachtelDate: 6/3/09Section Manager: David Manis
David ManisDate: 6/3/09

Laboratory Analysis Results

ACL Number: 090524

Analysis Code: AMOR006

Note: Results are reported in units of parts per billion by volume (ppbv)

Lab ID			090524-0001					
Field ID			Compressor Station					
Canister ID			20331					
Analysis Date			05/29/09					
Compound	ESL	LOD	Concentration	SDL	Flags**	Concentration	SDL	Flags**
ethane	10000	0.50	730	3.5	D1			
ethylene	1200	0.50	1.1	3.5	J,D1			
acetylene	25000	0.50	ND	3.5	D1			
propane	10000	0.50	360	3.5	D1			
propylene	68000	0.50	ND	3.5	D1			
dichlorodifluoromethane	10000	0.20	ND	1.4	D1			
methyl chloride	500	0.20	2.0	1.4	L,D1			
isobutane	2000	0.23	84	1.6	D1			
vinyl chloride	50	0.17	ND	1.2	D1			
1-butene	360	0.20	2.3	1.4	L,D1			
1,3-butadiene	50	0.27	ND	1.9	D1			
n-butane	8000	0.20	160	1.4	D1			
t-2-butene	2100	0.18	ND	1.3	D1			
bromomethane	30	0.27	ND	1.9	D1			
c-2-butene	2100	0.27	ND	1.9	D1			
3-methyl-1-butene	250	0.23	ND	1.6	D1			
isopentane	1200	0.27	45	1.9	D1			
trichlorofluoromethane	5000	0.29	0.33	2.0	J,D1			
1-pentene	100	0.27	ND	1.9	D1			
n-pentane	1200	0.27	37	1.9	D1,A1			
isoprene	5.0	0.27	ND	1.9	D1			
t-2-pentene	2600	0.27	ND	1.9	D1			
1,1-dichloroethylene	180	0.18	ND	1.3	D1			
c-2-pentene	2600	0.25	ND	1.8	D1			
methylene chloride	75	0.14	ND	0.98	D1			
2-methyl-2-butene	250	0.23	ND	1.6	D1			
2,2-dimethylbutane	1000	0.21	0.97	1.5	J,D1			
cyclopentene	2900	0.20	ND	1.4	D1			
4-methyl-1-pentene	20	0.22	ND	1.5	D1			
1,1-dichloroethane	1000	0.19	ND	1.3	D1			
cyclopentane	1200	0.27	0.64	1.9	J,D1			
2,3-dimethylbutane	1000	0.28	0.90	2.0	J,D1			
2-methylpentane	83	0.27	9.1	1.9	D1			
3-methylpentane	1000	0.23	5.8	1.6	D1			
2-methyl-1-pentene + 1-hexene	20	0.20	ND	1.4	D1			
n-hexane	1500	0.20	10	1.4	D1			
chloroform	20	0.21	ND	1.5	D1			
t-2-hexene	20	0.27	ND	1.9	D1			
c-2-hexene	20	0.27	ND	1.9	D1			
1,2-dichloroethane	40	0.27	ND	1.9	D1			
methylcyclopentane	750	0.27	1.4	1.9	J,D1			
2,4-dimethylpentane	910	0.27	ND	1.9	D1			
1,1,1-trichloroethane	2000	0.26	ND	1.8	D1			
benzene	180	0.27	0.93	1.9	J,D1			
carbon tetrachloride	20	0.27	ND	1.9	D1			
cyclohexane	420	0.24	3.1	1.7	L,D1			
2-methylhexane	750	0.27	3.9	1.9	L,D1			
2,3-dimethylpentane	910	0.26	0.65	1.8	J,D1			

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Note: Results are reported in units of parts per billion by volume (ppbv)

ESL - Effects Screening Level. (Short-term Health and Odor Based in units of ppbv)

LOD - Limit of Detection.

ND - not detected

NQ - concentration can not be quantified.

SDL - Sample Detection Limit (MDL adjusted for dilutions).

INV - Invalid.

J - Reported concentration is below SDL.

L - Reported concentration is above the SDL and is below the lower limit of quantitation.

E - Reported concentration exceeds the upper limit of instrument calibration.

M - Result modified from previous result.

* SDL is equal to LOD

** Quality control flags explanations are listed on the last page of this report.

Compound concentration is equal to or greater than the Effects Screening Level.

D1-Sample was diluted 14.04 times to determine the concentration.

TCEQ laboratory customer support may be reached at kbachtel@tceq.state.tx.us

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Laboratory Analysis Results

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Analysis Code: AMOR006

Quality Control Notes:

Quality control Notes for samples 090524-0001

A1-Not all associated QC data met accuracy specification. Data may be an average 30 percent low with a range of -45 to -2 percent.

A2-Not all associated QC data met accuracy specification. Data may be an average 21 percent low with a range of -37 to +10 percent.

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Corrective Action Report

CAR Number 0000363

Initiated By **Jaydeep Patel**

Date Initiated **6/2/2009**

Project/ACL (if applicable):

Date of Occurrence **5/29/2009**

Area Affected **Canister**

Affected Analysis: **AMOR006**

Nonconformance **n-pentane and n-heptane recovery in LCSA and LCSB did not meet the QC requirements.**

Root Cause

Nonconformance

Root Cause **Possible moisture existed in the instrument.**

Samples Affected **All samples were run on GC-F on 05/29/2009.**

Impact on Data

Impact on Data **1. Data for n-pentane may be an average 30 percent low with a range of -45 to -2 percent.
2. Data for n-heptane may be an average 21 percent low with a range of -37 to +10 percent.**

Corrective Action

Implementation Date	Responsible Party
1/1/2011	Karen Bachtel

Improve or solve the moisture problem later

QA Review

Date **00/00/00**

TD Review

Date **00/00/00**

Nonconformance Corrected? Yes No New CAR if Nonconformance is not corrected

CAP Verified

Date **00/00/00**

Management Received

Date **00/00/00**

Comments