BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

April 22, 2015

Mr. Josh Haugh
Engineering Geologist
NYSDEC
Division of Environmental Remediation
625 Broadway - 12th Floor
Albany, NY 12233-7013

Re: Enarc-O Machine Products Site, Lima, NY
NYSDEC Site No. 826011
February 2015 Post-Remedial Groundwater Monitoring Report

Dear Mr. Haugh:

On behalf of our client, Kaddis Manufacturing Corp., Benchmark Environmental Engineering & Science, PLLC, has prepared this letter report to transmit the results of the February 2015 post-remedial groundwater monitoring event at the Enarc-O Machine Products Site in Lima, NY (see Figure 1).

FIELD SAMPLING PROCEDURE

In accordance with our revised October 3, 2008 Work Plan, four ground water monitoring wells were designated for sampling during the subject 15-month sampling event: MW-3, MW-5, MW-201D, and the former supply well (SUPPLY). To facilitate sampling, passive diffusion bags (PDBs) were used in lieu of conventional bailer or low-flow sampling techniques. The PDB sampler is a semi-permeable, low-density polyethylene membrane designed to allow volatile organic compounds (VOCs) to flow into the PDB until equilibrium is reached between the formation and the PDB.

Benchmark field staff deployed the PDBs on February 6, 2015. Retrieval and sampling of the PDBs was performed on February 20, 2015. The groundwater samples were transferred to laboratory supplied, pre-preserved sample vials and transported, under chain of custody control, to ALS Environmental Laboratories, (ALS) located in Rochester, New York for analysis of Target Compound List (TCL) VOCs per USEPA Method 8260B.

ANALYTICAL RESULTS

Attachment 1 includes a hard copy of the analytical data for the sampled wells as prepared by ALS. Table 1 summarizes the detected compounds and compares the results to NY State Groundwater Quality Standards and Guidance Values (NYSDEC TOGS 1.1.1, June 1998). As indicated on Table 1, VOC detections were generally limited to trace concentrations (below 1 part per million), with the exception of trichloroethene (TCE) in MW-201D.

2558 Hamburg Turnpike, Suite 300 | Buffalo, NY 14218
phone: (716) 856-0599 | fax: (716) 856-0583

HISTORICAL COMPARISONS

Attachment 2 presents the February 2015 data at each of the sampled locations with historical concentrations for key parameters, including: 1,1,1-trichloroethane (1,1,1-TCA); 1,1-dichloroethene (1,1-DCE); cis-1,2-dichloroethene (cis-1,2-DCE); TCE; and tetrachloroethene (PCE). Graphs presenting historic total VOC concentrations at each of the sampled locations are provided in Attachment 3.

Comparison of the February 2015 data to the prior two monitoring events indicates lower total VOC concentrations at all of the sampled locations with the exception of the MW-3, which exhibited total VOC concentrations consistent with those observed during prior winter monitoring events. The chlorinated VOC concentrations at MW-201D exhibited the lowest levels observed since 1994, indicating that natural attenuation processes are continuing to reduce downgradient concentrations and mitigate associated offsite environmental impact.

We are presently uploading the data in electronic data delivery (EDD) format to NYSDEC's EQuIS database. In the interim, please feel free to contact me with any questions.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Thomas H. Forbes, P.E.
Principal Engineer

Att.

c: J. MacAnn (Kaddis)
M. Tedeschi (Kaddis)

TABLE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

POST-REMEDIAL GROUNDWATER MONITORING RESULTS
FEBRUARY 2015

Enarc-O Machine Products, Inc.
Lima, New York
NYSDEC Registry No. 8-26-011

PARAMETER[1]	MW-3	MW-201D	MW-5	SUPPLY WELL	GWQS[2]
Volatile Organic Compounds (ug/L):					
Acetone	ND	ND	ND	ND	**50**
cis-1,2-Dichloroethene	**95**	**410**	**200**	ND	**5**
1,1,1-Trichloroethane	**11**	ND	ND	ND	**5**
Tetrachloroethene	**8.4**	ND	ND	ND	**5**
Trichloroethene	**610**	**2500**	**450**	**15**	**5**
1,1,1-Trichloroethane					**5**
Total VOCs	***724***	***2910***	***650***	***15***	**--**

Notes:

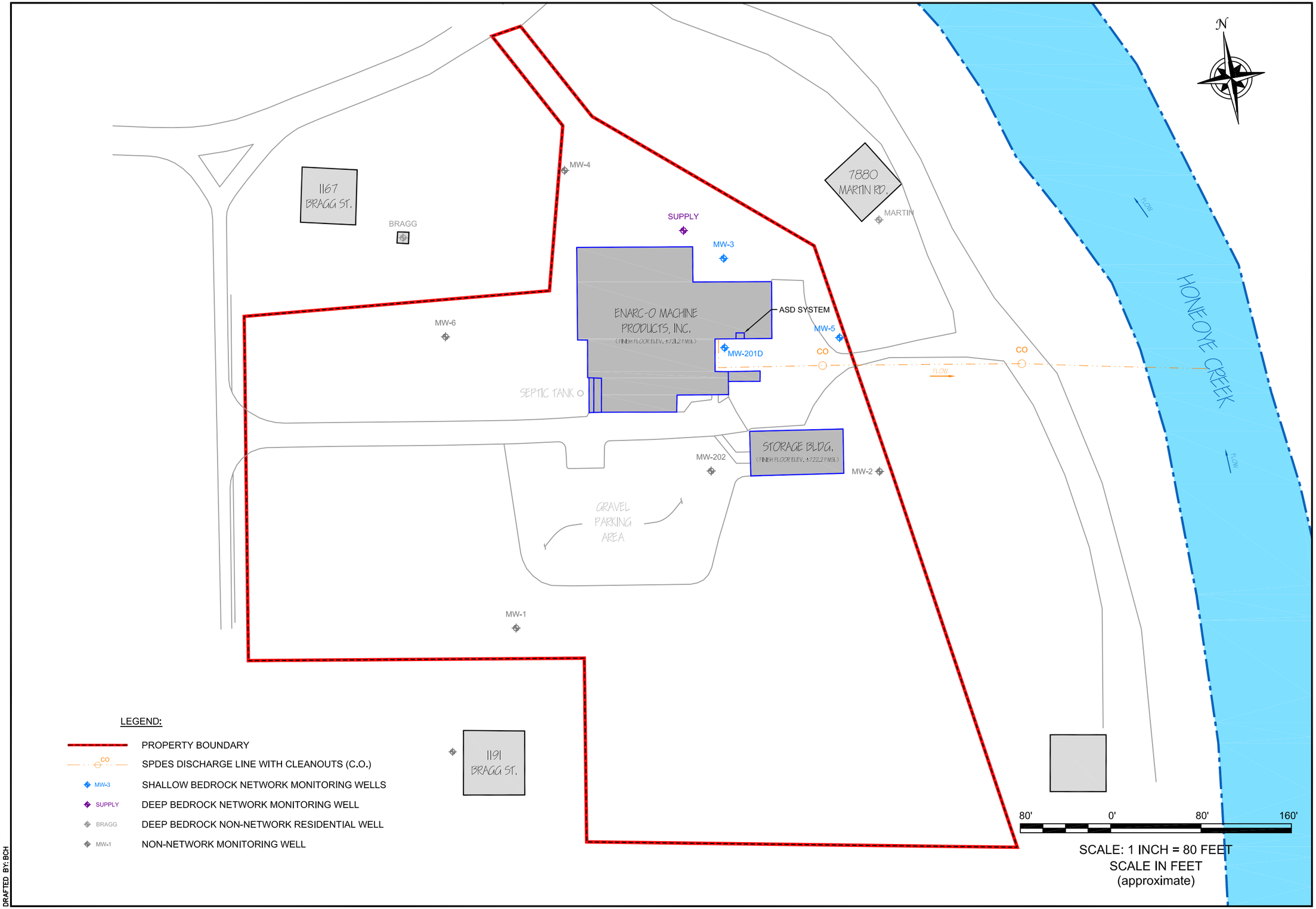
1. Only those compounds detected above the method detection limit at a minimum of one sample location are reported in this table.
2. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as per 6 NYCRR Part 703. Guidance value used when Standard value not available.

Acronyms:

BOLD = Value exceeds GWQS.

FIGURE

F:\CAD\Benchmark\Harter, Secrest, & Emery\Kaddis - Enarc-O\Figure 1; Site Plan GW Monitoring (revised 01-13-09).dwg
6/21/2011 2:46:24 PM, Adobe PDF



DATE: NOVEMBER 2006
DRAFTED BY: BCH

BENCHMARK Environmental Engineering & Science, PLLC
726 EXCHANGE STREET
SUITE 624
BUFFALO, NEW YORK 14210
(716) 856-0599

JOB NO.: 0127-001-104

SITE PLAN

POST-REMEDIAL GROUNDWATER MONITORING
ENARC-O MACHINE PRODUCTS
LIMA, NEW YORK

PREPARED FOR
KADDIS MANUFACTURING CORPORATION

FIGURE 1

ATTACHMENT 1

ALS-ENVIRONMENTAL LABORATORIES
SAMPLE DATA SUMMARY PACKAGE

FEBRUARY 2015

BENCHMARK

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

March 02, 2015

Analytical Report for Service Request No: R1501237

Mr. Rick Dubisz
Benchmark Environmental Engineering
2558 Hamburg Turnpike
Suite 300
Hamburg, NY 14218

Laboratory Results for: Kaddis Enarco

Dear Mr. Dubisz:

Enclosed are the results of the sample(s) submitted to our laboratory on February 20, 2015. For your reference, these analyses have been assigned our service request number **R1501237**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CASE NARRATIVE

Client:	Benchmark Environmental	**Service Request No.:**	R1501237
Project:	Kaddis Enarco	**Project Number:**	
Sample Matrix:	Water	**Date Received:**	02/20/15

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 02/20/15 and received at ALS in good condition at a cooler temperature of 6.0 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #. All Soluble parameters were filtered by field personnel.

Volatile Organics

Five water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. MW-3 was analyzed at a further dilution to bring the analytes within the calibration range of the instrument and have been flagged with an "E". Both sets of data have been reported.

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

Site specific QC was not requested on these samples; however was performed. All outlying QC has been flagged with an "*".

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries and RPD's were within QC limits.

All samples were analyzed within the required holding time of 14 days.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1501237

Lab ID	Client ID
R1501237-001	MW-201D
R1501237-002	MW-5
R1501237-003	MW-3
R1501237-004	SUPPLY
R1501237-005	TRIP BLANK

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0920
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 19:40
Sample Name:	MW-201D	**Units:**	µg/L
Lab Code:	R1501237-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6421.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	130	U	130	
79-34-5	1,1,2,2-Tetrachloroethane	130	U	130	
79-00-5	1,1,2-Trichloroethane	130	U	130	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	130	U	130	
75-34-3	1,1-Dichloroethane (1,1-DCA)	130	U	130	
75-35-4	1,1-Dichloroethene (1,1-DCE)	130	U	130	
120-82-1	1,2,4-Trichlorobenzene	130	U	130	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	130	U	130	
106-93-4	1,2-Dibromoethane	130	U	130	
95-50-1	1,2-Dichlorobenzene	130	U	130	
107-06-2	1,2-Dichloroethane	130	U	130	
78-87-5	1,2-Dichloropropane	130	U	130	
541-73-1	1,3-Dichlorobenzene	130	U	130	
106-46-7	1,4-Dichlorobenzene	130	U	130	
78-93-3	2-Butanone (MEK)	250	U	250	
591-78-6	2-Hexanone	250	U	250	
108-10-1	4-Methyl-2-pentanone	250	U	250	
67-64-1	Acetone	250	U	250	
71-43-2	Benzene	130	U	130	
75-27-4	Bromodichloromethane	130	U	130	
75-25-2	Bromoform	130	U	130	
74-83-9	Bromomethane	130	U	130	
75-15-0	Carbon Disulfide	250	U	250	
56-23-5	Carbon Tetrachloride	130	U	130	
108-90-7	Chlorobenzene	130	U	130	
75-00-3	Chloroethane	130	U	130	
67-66-3	Chloroform	130	U	130	
74-87-3	Chloromethane	130	U	130	
110-82-7	Cyclohexane	250	U	250	
124-48-1	Dibromochloromethane	130	U	130	
75-71-8	Dichlorodifluoromethane (CFC 12)	130	U	130	
75-09-2	Dichloromethane	130	U	130	
100-41-4	Ethylbenzene	130	U	130	
98-82-8	Isopropylbenzene (Cumene)	130	U	130	
79-20-9	Methyl Acetate	250	U	250	
1634-04-4	Methyl tert-Butyl Ether	130	U	130	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0920
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 19:40
Sample Name:	MW-201D	**Units:**	µg/L
Lab Code:	R1501237-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6421.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	250	U	250	
100-42-5	Styrene	130	U	130	
127-18-4	Tetrachloroethene (PCE)	130	U	130	
108-88-3	Toluene	130	U	130	
79-01-6	Trichloroethene (TCE)	**2500**		130	
75-69-4	Trichlorofluoromethane (CFC 11)	130	U	130	
75-01-4	Vinyl Chloride	130	U	130	
156-59-2	cis-1,2-Dichloroethene	**410**		130	
10061-01-5	cis-1,3-Dichloropropene	130	U	130	
179601-23-1	m,p-Xylenes	130	U	130	
95-47-6	o-Xylene	130	U	130	
156-60-5	trans-1,2-Dichloroethene	130	U	130	
10061-02-6	trans-1,3-Dichloropropene	130	U	130	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	85-122	2/24/15 19:40	
Dibromofluoromethane	109	89-119	2/24/15 19:40	
Toluene-d8	106	87-121	2/24/15 19:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0935
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 20:12
Sample Name:	MW-5	**Units:**	µg/L
Lab Code:	R1501237-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6422.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	
79-00-5	1,1,2-Trichloroethane	25	U	25	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	25	U	25	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	
75-35-4	1,1-Dichloroethene (1,1-DCE)	25	U	25	
120-82-1	1,2,4-Trichlorobenzene	25	U	25	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	25	U	25	
106-93-4	1,2-Dibromoethane	25	U	25	
95-50-1	1,2-Dichlorobenzene	25	U	25	
107-06-2	1,2-Dichloroethane	25	U	25	
78-87-5	1,2-Dichloropropane	25	U	25	
541-73-1	1,3-Dichlorobenzene	25	U	25	
106-46-7	1,4-Dichlorobenzene	25	U	25	
78-93-3	2-Butanone (MEK)	50	U	50	
591-78-6	2-Hexanone	50	U	50	
108-10-1	4-Methyl-2-pentanone	50	U	50	
67-64-1	Acetone	50	U	50	
71-43-2	Benzene	25	U	25	
75-27-4	Bromodichloromethane	25	U	25	
75-25-2	Bromoform	25	U	25	
74-83-9	Bromomethane	25	U	25	
75-15-0	Carbon Disulfide	50	U	50	
56-23-5	Carbon Tetrachloride	25	U	25	
108-90-7	Chlorobenzene	25	U	25	
75-00-3	Chloroethane	25	U	25	
67-66-3	Chloroform	25	U	25	
74-87-3	Chloromethane	25	U	25	
110-82-7	Cyclohexane	50	U	50	
124-48-1	Dibromochloromethane	25	U	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	25	U	25	
75-09-2	Dichloromethane	25	U	25	
100-41-4	Ethylbenzene	25	U	25	
98-82-8	Isopropylbenzene (Cumene)	25	U	25	
79-20-9	Methyl Acetate	50	U	50	
1634-04-4	Methyl tert-Butyl Ether	25	U	25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0935
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 20:12
Sample Name:	MW-5	**Units:**	µg/L
Lab Code:	R1501237-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6422.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	50	U	50	
100-42-5	Styrene	25	U	25	
127-18-4	Tetrachloroethene (PCE)	25	U	25	
108-88-3	Toluene	25	U	25	
79-01-6	Trichloroethene (TCE)	**450**		25	
75-69-4	Trichlorofluoromethane (CFC 11)	25	U	25	
75-01-4	Vinyl Chloride	25	U	25	
156-59-2	cis-1,2-Dichloroethene	**200**		25	
10061-01-5	cis-1,3-Dichloropropene	25	U	25	
179601-23-1	m,p-Xylenes	25	U	25	
95-47-6	o-Xylene	25	U	25	
156-60-5	trans-1,2-Dichloroethene	25	U	25	
10061-02-6	trans-1,3-Dichloropropene	25	U	25	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	121	85-122	2/24/15 20:12	
Dibromofluoromethane	114	89-119	2/24/15 20:12	
Toluene-d8	108	87-121	2/24/15 20:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0950
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 20:43
Sample Name:	MW-3	**Units:**	µg/L
Lab Code:	R1501237-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6423.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**11**		5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	
106-93-4	1,2-Dibromoethane	5.0	U	5.0	
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
110-82-7	Cyclohexane	10	U	10	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
98-82-8	Isopropylbenzene (Cumene)	5.0	U	5.0	
79-20-9	Methyl Acetate	10	U	10	
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0950
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 20:43
Sample Name:	MW-3	**Units:**	µg/L
Lab Code:	R1501237-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6423.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**8.4**		5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	**660**	E	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	**100**		5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85-122	2/24/15 20:43	
Dibromofluoromethane	108	89-119	2/24/15 20:43	
Toluene-d8	106	87-121	2/24/15 20:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0950
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/25/15 23:37
Sample Name:	MW-3	**Units:**	µg/L
Lab Code:	R1501237-003	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	434120
Data File Name:	I:\ACQUDATA\msvoa10\data\022515\A6473.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	25	U	25	
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	
79-00-5	1,1,2-Trichloroethane	25	U	25	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	25	U	25	
75-34-3	1,1-Dichloroethane (1,1-DCA)	25	U	25	
75-35-4	1,1-Dichloroethene (1,1-DCE)	25	U	25	
120-82-1	1,2,4-Trichlorobenzene	25	U	25	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	25	U	25	
106-93-4	1,2-Dibromoethane	25	U	25	
95-50-1	1,2-Dichlorobenzene	25	U	25	
107-06-2	1,2-Dichloroethane	25	U	25	
78-87-5	1,2-Dichloropropane	25	U	25	
541-73-1	1,3-Dichlorobenzene	25	U	25	
106-46-7	1,4-Dichlorobenzene	25	U	25	
78-93-3	2-Butanone (MEK)	50	U	50	
591-78-6	2-Hexanone	50	U	50	
108-10-1	4-Methyl-2-pentanone	50	U	50	
67-64-1	Acetone	50	U	50	
71-43-2	Benzene	25	U	25	
75-27-4	Bromodichloromethane	25	U	25	
75-25-2	Bromoform	25	U	25	
74-83-9	Bromomethane	25	U	25	
75-15-0	Carbon Disulfide	50	U	50	
56-23-5	Carbon Tetrachloride	25	U	25	
108-90-7	Chlorobenzene	25	U	25	
75-00-3	Chloroethane	25	U	25	
67-66-3	Chloroform	25	U	25	
74-87-3	Chloromethane	25	U	25	
110-82-7	Cyclohexane	50	U	50	
124-48-1	Dibromochloromethane	25	U	25	
75-71-8	Dichlorodifluoromethane (CFC 12)	25	U	25	
75-09-2	Dichloromethane	25	U	25	
100-41-4	Ethylbenzene	25	U	25	
98-82-8	Isopropylbenzene (Cumene)	25	U	25	
79-20-9	Methyl Acetate	50	U	50	
1634-04-4	Methyl tert-Butyl Ether	25	U	25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0950
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/25/15 23:37
Sample Name:	MW-3	**Units:**	µg/L
Lab Code:	R1501237-003	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	434120
Data File Name:	I:\ACQUDATA\msvoa10\data\022515\A6473.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	50	U	50	
100-42-5	Styrene	25	U	25	
127-18-4	Tetrachloroethene (PCE)	25	U	25	
108-88-3	Toluene	25	U	25	
79-01-6	Trichloroethene (TCE)	**610**	D	25	
75-69-4	Trichlorofluoromethane (CFC 11)	25	U	25	
75-01-4	Vinyl Chloride	25	U	25	
156-59-2	cis-1,2-Dichloroethene	**95**	D	25	
10061-01-5	cis-1,3-Dichloropropene	25	U	25	
179601-23-1	m,p-Xylenes	25	U	25	
95-47-6	o-Xylene	25	U	25	
156-60-5	trans-1,2-Dichloroethene	25	U	25	
10061-02-6	trans-1,3-Dichloropropene	25	U	25	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85-122	2/25/15 23:37	
Dibromofluoromethane	108	89-119	2/25/15 23:37	
Toluene-d8	102	87-121	2/25/15 23:37	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 1005
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 21:14
Sample Name:	SUPPLY	**Units:**	µg/L
Lab Code:	R1501237-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6424.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	
106-93-4	1,2-Dibromoethane	5.0	U	5.0	
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
110-82-7	Cyclohexane	10	U	10	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
98-82-8	Isopropylbenzene (Cumene)	5.0	U	5.0	
79-20-9	Methyl Acetate	10	U	10	
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 1005
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/24/15 21:14
Sample Name:	SUPPLY	**Units:**	µg/L
Lab Code:	R1501237-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6424.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	**15**		5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85-122	2/24/15 21:14	
Dibromofluoromethane	105	89-119	2/24/15 21:14	
Toluene-d8	105	87-121	2/24/15 21:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0920
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/25/15 23:05
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1501237-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	434120
Data File Name:	I:\ACQUDATA\msvoa10\data\022515\A6472.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	
106-93-4	1,2-Dibromoethane	5.0	U	5.0	
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
110-82-7	Cyclohexane	10	U	10	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
98-82-8	Isopropylbenzene (Cumene)	5.0	U	5.0	
79-20-9	Methyl Acetate	10	U	10	
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	2/20/15 0920
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/25/15 23:05
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1501237-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	434120
Data File Name:	I:\ACQUDATA\msvoa10\data\022515\A6472.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	85-122	2/25/15 23:05	
Dibromofluoromethane	114	89-119	2/25/15 23:05	
Toluene-d8	100	87-121	2/25/15 23:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/24/15 13:41
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501906-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6410.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	
106-93-4	1,2-Dibromoethane	5.0	U	5.0	
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
110-82-7	Cyclohexane	10	U	10	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
98-82-8	Isopropylbenzene (Cumene)	5.0	U	5.0	
79-20-9	Methyl Acetate	10	U	10	
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/24/15 13:41
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501906-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433865
Data File Name:	I:\ACQUDATA\msvoa10\data\022415\A6410.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85-122	2/24/15 13:41	
Dibromofluoromethane	104	89-119	2/24/15 13:41	
Toluene-d8	105	87-121	2/24/15 13:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/25/15 16:09
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501950-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	434120
Data File Name:	I:\ACQUDATA\msvoa10\data\022515\A6459.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
120-82-1	1,2,4-Trichlorobenzene	5.0	U	5.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	5.0	U	5.0	
106-93-4	1,2-Dibromoethane	5.0	U	5.0	
95-50-1	1,2-Dichlorobenzene	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
541-73-1	1,3-Dichlorobenzene	5.0	U	5.0	
106-46-7	1,4-Dichlorobenzene	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
110-82-7	Cyclohexane	10	U	10	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
98-82-8	Isopropylbenzene (Cumene)	5.0	U	5.0	
79-20-9	Methyl Acetate	10	U	10	
1634-04-4	Methyl tert-Butyl Ether	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Benchmark Environmental Engineering	**Service Request:**	R1501237
Project:	Kaddis Enarco	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/25/15 16:09
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501950-03	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	434120
Data File Name:	I:\ACQUDATA\msvoa10\data\022515\A6459.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
108-87-2	Methylcyclohexane	10	U	10	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85-122	2/25/15 16:09	
Dibromofluoromethane	104	89-119	2/25/15 16:09	
Toluene-d8	101	87-121	2/25/15 16:09	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Collected: 2/20/15
Date Received: 2/20/15
Date Analyzed: 2/24/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-201D
Lab Code: R1501237-001

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW-201DMS Matrix Spike RQ1501906-05 Result	Spike Amount	% Rec	MW-201DDMS Duplicate Matrix Spike RQ1501906-06 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	ND	1540	1250	123	1610	1250	129	*	74 - 127	5	30
1,1,2,2-Tetrachloroethane	ND	1190	1250	95	1210	1250	97		72 - 122	2	30
1,1,2-Trichloroethane	ND	1330	1250	106	1380	1250	110		82 - 115	4	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1440	1250	115	1540	1250	124		59 - 131	7	30
1,1-Dichloroethane (1,1-DCA)	ND	1330	1250	106	1410	1250	113		74 - 132	6	30
1,1-Dichloroethene (1,1-DCE)	ND	1480	1250	119	1590	1250	127	*	72 - 125	7	30
1,2,4-Trichlorobenzene	ND	1140	1250	91	1220	1250	98		56 - 140	7	30
1,2-Dibromo-3-chloropropane (DBC	ND	1190	1250	95	1260	1250	101		67 - 126	6	30
1,2-Dibromoethane	ND	1380	1250	110	1410	1250	112		80 - 117	2	30
1,2-Dichlorobenzene	ND	1270	1250	101	1330	1250	107		77 - 120	5	30
1,2-Dichloroethane	ND	1320	1250	105	1370	1250	110		72 - 132	4	30
1,2-Dichloropropane	ND	1310	1250	105	1370	1250	110		79 - 124	4	30
1,3-Dichlorobenzene	ND	1240	1250	99	1300	1250	104		74 - 125	5	30
1,4-Dichlorobenzene	ND	1230	1250	98	1310	1250	105		72 - 124	7	30
2-Butanone (MEK)	ND	1200	1250	96	1220	1250	97		46 - 141	2	30
2-Hexanone	ND	1060	1250	85	1080	1250	86		56 - 132	2	30
4-Methyl-2-pentanone	ND	1190	1250	95	1200	1250	96		60 - 141	1	30
Acetone	ND	1100	1250	88	1090	1250	87		29 - 151	<1	30
Benzene	ND	1340	1250	107	1420	1250	114		76 - 129	6	30
Bromodichloromethane	ND	1400	1250	112	1450	1250	116		76 - 127	4	30
Bromoform	ND	1290	1250	103	1330	1250	106		58 - 133	3	30
Bromomethane	ND	511	1250	41	707	1250	57		10 - 162	32	* 30
Carbon Disulfide	ND	1250	1250	100	1270	1250	101		34 - 162	1	30
Carbon Tetrachloride	ND	1510	1250	121	1590	1250	127		71 - 135	5	30
Chlorobenzene	ND	1300	1250	104	1340	1250	107		76 - 125	3	30
Chloroethane	ND	1460	1250	116	1520	1250	121		70 - 140	4	30
Chloroform	ND	1430	1250	115	1510	1250	121		75 - 130	5	30
Chloromethane	ND	1280	1250	102	1380	1250	110		55 - 160	8	30

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Collected: 2/20/15
Date Received: 2/20/15
Date Analyzed: 2/24/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-201D
Lab Code: R1501237-001

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW-201DMS Matrix Spike RQ1501906-05 Result	Spike Amount	% Rec	MW-201DDMS Duplicate Matrix Spike RQ1501906-06 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
Cyclohexane	ND	1380	1250	111	1420	1250	114		52 - 145	3	30
Dibromochloromethane	ND	1340	1250	108	1360	1250	109		72 - 128	1	30
Dichlorodifluoromethane (CFC 12)	ND	1450	1250	116	1630	1250	130		49 - 154	12	30
Dichloromethane	ND	1510	1250	121	1580	1250	126	*	75 - 121	5	30
Ethylbenzene	ND	1210	1250	97	1250	1250	100		72 - 134	4	30
Isopropylbenzene (Cumene)	ND	1360	1250	109	1420	1250	113		76 - 136	4	30
Methyl Acetate	ND	1320	1250	106	1310	1250	105		45 - 146	<1	30
Methyl tert-Butyl Ether	ND	1350	1250	108	1410	1250	113		74 - 130	5	30
Methylcyclohexane	ND	1310	1250	105	1330	1250	107		45 - 146	2	30
Styrene	ND	1370	1250	109	1410	1250	113		34 - 156	3	30
Tetrachloroethene (PCE)	ND	1410	1250	112	1430	1250	114		67 - 137	1	30
Toluene	ND	1380	1250	110	1450	1250	116		79 - 125	5	30
Trichloroethene (TCE)	2500	3560	1250	82	3640	1250	88		62 - 142	2	30
Trichlorofluoromethane (CFC 11)	ND	1470	1250	117	1550	1250	124		72 - 142	6	30
Vinyl Chloride	ND	1290	1250	103	1400	1250	112		60 - 157	9	30
cis-1,2-Dichloroethene	410	1820	1250	112	1860	1250	116		72 - 133	2	30
cis-1,3-Dichloropropene	ND	1320	1250	105	1370	1250	110		52 - 134	4	30
m,p-Xylenes	ND	2780	2500	111	2850	2500	114		68 - 138	2	30
o-Xylene	ND	1350	1250	108	1350	1250	108		68 - 134	<1	30
trans-1,2-Dichloroethene	ND	1510	1250	121	1540	1250	123		77 - 125	2	30
trans-1,3-Dichloropropene	ND	1330	1250	106	1390	1250	111		64 - 123	5	30

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Collected: 2/20/15
Date Received: 2/20/15
Date Analyzed: 2/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-3
Lab Code: R1501237-003

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW-3MS Matrix Spike RQ1501950-06 Result	Spike Amount	% Rec		MW-3DMS Duplicate Matrix Spike RQ1501950-07 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	11	358	250	139	*	344	250	133	*	74 - 127	4	30
1,1,2,2-Tetrachloroethane	ND	291	250	116		301	250	120		72 - 122	3	30
1,1,2-Trichloroethane	ND	346	250	138	*	322	250	129	*	82 - 115	7	30
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	326	250	130		323	250	129		59 - 131	<1	30
1,1-Dichloroethane (1,1-DCA)	ND	316	250	126		303	250	121		74 - 132	4	30
1,1-Dichloroethene (1,1-DCE)	ND	333	250	133	*	334	250	133	*	72 - 125	<1	30
1,2,4-Trichlorobenzene	ND	267	250	107		269	250	108		56 - 140	<1	30
1,2-Dibromo-3-chloropropane (DBC	ND	306	250	122		312	250	125		67 - 126	2	30
1,2-Dibromoethane	ND	342	250	137	*	325	250	130	*	80 - 117	5	30
1,2-Dichlorobenzene	ND	285	250	114		288	250	115		77 - 120	<1	30
1,2-Dichloroethane	ND	328	250	131		306	250	123		72 - 132	7	30
1,2-Dichloropropane	ND	314	250	125	*	292	250	117		79 - 124	7	30
1,3-Dichlorobenzene	ND	269	250	107		270	250	108		74 - 125	<1	30
1,4-Dichlorobenzene	ND	272	250	109		271	250	109		72 - 124	<1	30
2-Butanone (MEK)	ND	321	250	129		335	250	134		46 - 141	4	30
2-Hexanone	ND	280	250	112		287	250	115		56 - 132	3	30
4-Methyl-2-pentanone	ND	316	250	127		311	250	124		60 - 141	2	30
Acetone	ND	348	250	139		331	250	132		29 - 151	5	30
Benzene	ND	317	250	127		292	250	117		76 - 129	8	30
Bromodichloromethane	ND	338	250	135	*	312	250	125		76 - 127	8	30
Bromoform	ND	307	250	123		310	250	124		58 - 133	<1	30
Bromomethane	ND	137	250	55		141	250	56		10 - 162	3	30
Carbon Disulfide	ND	280	250	112		274	250	110		34 - 162	2	30
Carbon Tetrachloride	ND	359	250	143	*	324	250	130		71 - 135	10	30
Chlorobenzene	ND	294	250	118		278	250	111		76 - 125	6	30
Chloroethane	ND	331	250	132		338	250	135		70 - 140	2	30
Chloroform	ND	342	250	137	*	334	250	133	*	75 - 130	2	30
Chloromethane	ND	314	250	125		304	250	121		55 - 160	3	30

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Collected: 2/20/15
Date Received: 2/20/15
Date Analyzed: 2/26/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-3
Lab Code: R1501237-003

Units: µg/L
Basis: NA

Analytical Method: 8260C

Analyte Name	Sample Result	MW-3MS Matrix Spike RQ1501950-06 Result	Spike Amount	% Rec		MW-3DMS Duplicate Matrix Spike RQ1501950-07 Result	Spike Amount	% Rec		% Rec Limits	RPD	RPD Limit
Cyclohexane	ND	336	250	134		303	250	121		52 - 145	10	30
Dibromochloromethane	ND	315	250	126		311	250	124		72 - 128	1	30
Dichlorodifluoromethane (CFC 12)	ND	368	250	147		343	250	137		49 - 154	7	30
Dichloromethane	ND	355	250	142	*	358	250	143	*	75 - 121	<1	30
Ethylbenzene	ND	276	250	111		253	250	101		72 - 134	9	30
Isopropylbenzene (Cumene)	ND	309	250	123		287	250	115		76 - 136	7	30
Methyl Acetate	ND	352	250	141		350	250	140		45 - 146	<1	30
Methyl tert-Butyl Ether	ND	337	250	135	*	347	250	139	*	74 - 130	3	30
Methylcyclohexane	ND	310	250	124		278	250	111		45 - 146	11	30
Styrene	ND	312	250	125		296	250	118		34 - 156	5	30
Tetrachloroethene (PCE)	8.4	311	250	121		291	250	113		67 - 137	7	30
Toluene	ND	320	250	128	*	296	250	118		79 - 125	8	30
Trichloroethene (TCE)	610	1040	250	172	*	929	250	129		62 - 142	11	30
Trichlorofluoromethane (CFC 11)	ND	338	250	135		332	250	133		72 - 142	2	30
Vinyl Chloride	ND	317	250	127		305	250	122		60 - 157	4	30
cis-1,2-Dichloroethene	100	443	250	137	*	423	250	129		72 - 133	5	30
cis-1,3-Dichloropropene	ND	310	250	124		296	250	118		52 - 134	5	30
m,p-Xylenes	ND	627	500	125		583	500	117		68 - 138	7	30
o-Xylene	ND	299	250	120		283	250	113		68 - 134	6	30
trans-1,2-Dichloroethene	ND	346	250	138	*	339	250	136	*	77 - 125	2	30
trans-1,3-Dichloropropene	ND	321	250	128	*	306	250	122		64 - 123	5	30

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ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Analyzed: 2/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 433865

Analyte Name	Lab Control Sample RQ1501906-02 Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	22.0	20.0	110	71 - 123
1,1,2,2-Tetrachloroethane	20.7	20.0	103	74 - 127
1,1,2-Trichloroethane	22.5	20.0	112	79 - 117
1,1,2-Trichloro-1,2,2-trifluoroethane	21.3	20.0	106	64 - 136
1,1-Dichloroethane (1,1-DCA)	20.2	20.0	101	76 - 128
1,1-Dichloroethene (1,1-DCE)	21.3	20.0	107	74 - 135
1,2,4-Trichlorobenzene	20.4	20.0	102	60 - 141
1,2-Dibromo-3-chloropropane (DBCP)	22.8	20.0	114	69 - 135
1,2-Dibromoethane	23.0	20.0	115	81 - 123
1,2-Dichlorobenzene	21.4	20.0	107	80 - 119
1,2-Dichloroethane	21.5	20.0	108	72 - 130
1,2-Dichloropropane	21.0	20.0	105	80 - 119
1,3-Dichlorobenzene	20.4	20.0	102	79 - 121
1,4-Dichlorobenzene	20.8	20.0	104	79 - 119
2-Butanone (MEK)	21.1	20.0	106	66 - 129
2-Hexanone	17.0	20.0	85	61 - 131
4-Methyl-2-pentanone	18.3	20.0	92	68 - 129
Acetone	23.9	20.0	119	51 - 146
Benzene	20.8	20.0	104	76 - 118
Bromodichloromethane	22.7	20.0	114	79 - 122
Bromoform	24.0	20.0	120	65 - 138
Bromomethane	14.4	20.0	72	41 - 159
Carbon Disulfide	18.7	20.0	93	63 - 141
Carbon Tetrachloride	23.5	20.0	118	66 - 128
Chlorobenzene	20.7	20.0	104	80 - 121
Chloroethane	21.1	20.0	106	71 - 128
Chloroform	22.2	20.0	111	76 - 120
Chloromethane	20.0	20.0	100	64 - 140
Cyclohexane	15.1	20.0	76	55 - 128
Dibromochloromethane	23.1	20.0	116	79 - 125
Dichlorodifluoromethane (CFC 12)	22.8	20.0	114	60 - 150
Dichloromethane	23.6	20.0	118	73 - 122
Ethylbenzene	18.2	20.0	91	76 - 120

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Analyzed: 2/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 433865

Lab Control Sample
RQ1501906-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	20.9	20.0	104	76 - 126
Methyl Acetate	19.7	20.0	98	66 - 121
Methyl tert-Butyl Ether	22.5	20.0	112	73 - 131
Methylcyclohexane	14.1	20.0	70	51 - 129
Styrene	21.5	20.0	107	81 - 122
Tetrachloroethene (PCE)	21.5	20.0	108	69 - 124
Toluene	21.2	20.0	106	77 - 120
Trichloroethene (TCE)	21.5	20.0	108	76 - 123
Trichlorofluoromethane (CFC 11)	21.6	20.0	108	69 - 130
Vinyl Chloride	17.1	20.0	85	69 - 136
cis-1,2-Dichloroethene	22.1	20.0	110	80 - 121
cis-1,3-Dichloropropene	22.0	20.0	110	77 - 125
m,p-Xylenes	42.4	40.0	106	78 - 123
o-Xylene	20.6	20.0	103	77 - 131
trans-1,2-Dichloroethene	22.4	20.0	112	78 - 124
trans-1,3-Dichloropropene	23.8	20.0	119	72 - 123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Analyzed: 2/25/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 434120

Lab Control Sample
RQ1501950-04

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	21.4	20.0	107	71 - 123
1,1,2,2-Tetrachloroethane	20.9	20.0	105	74 - 127
1,1,2-Trichloroethane	19.8	20.0	99	79 - 117
1,1,2-Trichloro-1,2,2-trifluoroethane	21.6	20.0	108	64 - 136
1,1-Dichloroethane (1,1-DCA)	18.9	20.0	94	76 - 128
1,1-Dichloroethene (1,1-DCE)	21.6	20.0	108	74 - 135
1,2,4-Trichlorobenzene	20.5	20.0	102	60 - 141
1,2-Dibromo-3-chloropropane (DBCP)	21.2	20.0	106	69 - 135
1,2-Dibromoethane	22.1	20.0	111	81 - 123
1,2-Dichlorobenzene	21.7	20.0	108	80 - 119
1,2-Dichloroethane	19.7	20.0	98	72 - 130
1,2-Dichloropropane	19.2	20.0	96	80 - 119
1,3-Dichlorobenzene	21.3	20.0	106	79 - 121
1,4-Dichlorobenzene	21.3	20.0	106	79 - 119
2-Butanone (MEK)	19.9	20.0	100	66 - 129
2-Hexanone	18.3	20.0	92	61 - 131
4-Methyl-2-pentanone	17.9	20.0	90	68 - 129
Acetone	21.0	20.0	105	51 - 146
Benzene	19.9	20.0	100	76 - 118
Bromodichloromethane	21.1	20.0	105	79 - 122
Bromoform	23.6	20.0	118	65 - 138
Bromomethane	14.6	20.0	73	41 - 159
Carbon Disulfide	19.0	20.0	95	63 - 141
Carbon Tetrachloride	22.8	20.0	114	66 - 128
Chlorobenzene	21.2	20.0	106	80 - 121
Chloroethane	21.1	20.0	106	71 - 128
Chloroform	20.6	20.0	103	76 - 120
Chloromethane	18.9	20.0	95	64 - 140
Cyclohexane	18.9	20.0	95	55 - 128
Dibromochloromethane	22.6	20.0	113	79 - 125
Dichlorodifluoromethane (CFC 12)	22.1	20.0	110	60 - 150
Dichloromethane	21.9	20.0	110	73 - 122
Ethylbenzene	19.2	20.0	96	76 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Benchmark Environmental Engineering
Project: Kaddis Enarco
Sample Matrix: Water

Service Request: R1501237
Date Analyzed: 2/25/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 434120

Analyte Name	Lab Control Sample RQ1501950-04 Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	21.5	20.0	107	76 - 126
Methyl Acetate	17.8	20.0	89	66 - 121
Methyl tert-Butyl Ether	19.5	20.0	98	73 - 131
Methylcyclohexane	17.6	20.0	88	51 - 129
Styrene	21.7	20.0	108	81 - 122
Tetrachloroethene (PCE)	22.5	20.0	113	69 - 124
Toluene	20.1	20.0	101	77 - 120
Trichloroethene (TCE)	21.0	20.0	105	76 - 123
Trichlorofluoromethane (CFC 11)	22.2	20.0	111	69 - 130
Vinyl Chloride	19.7	20.0	99	69 - 136
cis-1,2-Dichloroethene	20.3	20.0	101	80 - 121
cis-1,3-Dichloropropene	19.9	20.0	99	77 - 125
m,p-Xylenes	44.0	40.0	110	78 - 123
o-Xylene	20.9	20.0	105	77 - 131
trans-1,2-Dichloroethene	21.5	20.0	107	78 - 124
trans-1,3-Dichloropropene	20.6	20.0	103	72 - 123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

23608

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: Kaddis / Enarco	Project Number:
Project Manager: Tom Forbes	Report CC:
Company/Address: Benchmark Env Eng & Sci 2558 Hamburg Turnpike Buffalo, NY 14218	
Phone #	Email
Sampler's Signature	Sampler's Printed Name

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCAMS VOAs 8260 ○ 624 ○ CLP	GCAMS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)								REMARKS/ ALTERNATE DESCRIPTION
mw-201D		2/20/15	0920	W	3	V														
mw-5			0935	W	3	V														
mw-3			0930	W	3	V														
Supply			1005	W	3	V														

Preservative Key
0. NONE
1. HCl
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature Daniel Hurd	Signature	Signature	Signature	
Printed Name	Printed Name ALS	Printed Name	Printed Name	Printed Name	
Firm Benchmark	Firm 2/20/15 / 1227	Firm	Firm	Firm	
Date/Time 2/20/15 1235	Date/Time	Date/Time	Date/Time	Date/Time	

R1501237 5
Benchmark Environmental Engineering
Kaddis Enarco

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservation Check Form

Project/Client Benchmark Folder Number

Cooler received on 2/20/15 by: DTW

COURIER: ALS UPS FEDEX VELOCITY ~~CLIENT~~

1	Were **Custody seals** on outside of cooler?	Y ~~N~~
2	**Custody papers** properly completed (ink, signed)?	~~Y~~ N
3	Did all bottles arrive in good **condition** (unbroken)?	~~Y~~ N
4	Circle: **Wet Ice** **Dry Ice** **Gel packs** present?	Y ~~N~~

5a	**Perchlorate** samples have required headspace?	Y N ~~NA~~
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y ~~N~~ NA
6	Where did the bottles originate?	ALS/ROC CLIENT
7	Soil VOA received as: Bulk Encore 5035set	~~NA~~

8. Temperature Readings Date: 2/20/15 Time: 1231 ID: IR#3 ~~IR#4~~ From: Temp Blank ~~Sample Bottle~~

Observed Temp (°C)	6.8°						
Correction Factor (°C)	-0.8°						
Corrected Temp (°C)	6.0°						
Within 0-6°C?	~~Y~~ N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed ~~Same Day Rule~~

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Rack by DTW on 2/20/15 at 1231
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: JMM 2/20/15

Cooler Breakdown: Date: 2/20/15 Time: 1349 by: [illegible]

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? YES (NO)
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	H114050	12/15				

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 4-258-004

Other Comments:

Rec'd Trip Blank not on C.O.C.

PC Secondary Review: JMM 2/27/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ATTACHMENT 2

HISTORIC GROUNDWATER MONITORING RESULTS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

ATTACHMENT 2

SUMMARY OF HISTORIC ON-SITE GROUNDWATER ANALYTICAL RESULTS

Enarc-O Machine Products, Inc.
Lima, New York
NYSDEC Registry No. 8-26-011

WELL	DATE	COMPOUND						Total VOCs
		1,1,1-TCA	1,1-DCE	cis-1,2-DCE	TCE	PCE	Toluene	
MW-3	21-Dec-00							0
	25-Feb-91							0
	14-Jul-94	130	14 J	30 J	1100	17 J		1291
	2-Nov-94	250		51 J	3200	23 J		3524
	14-Apr-95	190	12	98	2500	22		2822
	23-Aug-95	47	4 J	22	510	10		593
	27-Oct-99	525			8650			9175
	8-Feb-00	365			5250			5615
	27-Apr-00	43.2			585			628
	25-Jul-00	121			1780			1901
	19-Oct-00	502		315	6830			7647
	21-Dec-00	57.8		103	1020			1181
	28-Feb-01			154	1630			1784
	19-Apr-01	167		174	2950			3291
	25-Oct-01	382		746	7210			8338
	11-Apr-02			105	1860			1965
	29-Oct-02	464		347	6390			7201
	29-Apr-03	250		268	4050			4568
	27-Oct-03	285		288	5720			6293
	29-Apr-04	261		152	3550			3963
	28-Oct-04	390		504	8430			9324
	12-Feb-07	97	18	440	1800			2355
	15-Aug-07	24		45	440	4.7 J		514
	13-Mar-08	38	10	210	930 D	4.5 J		1193
	20-Nov-08	22	5.9	63	490	6		587
	4-Feb-10	ND	ND	140	830	ND	ND	970
	1-May-11	11	ND	40	300	ND	ND	351
	29-Sep-12	ND	ND	24	300	ND	ND	324
	13-Nov-13	7.3	ND	12	180	ND	ND	199
	20-Feb-15	11	ND	95 D	610 D	8.4	ND	724
MW-5	7-Jan-91							ND
	25-Feb-91							ND
	14-Jul-94	23 J		58	510			591
	2-Nov-94	55	5 J	72	1100	9 J		1241
	14-Apr-95	15		63	400	4 J		482
	23-Aug-95	73	7 J	67	540	7 J		694
	27-Oct-99	33	7		657	6		703
	8-Feb-00	8.5		27.4 **J**	170			179
	27-Apr-00	5.24			161			166
	25-Jul-00	47.8			1120			1168
	19-Oct-00	8.6	2.01	30.1	199			240
	21-Dec-00	7.14		36.1	163			206
	28-Feb-01	2.03		29.3	78.3			110
	19-Apr-01	2.4	2.46	49.3	114			168
	25-Oct-01	35.6		139	758			933
	11-Apr-02	4.8		89	191			285
	29-Oct-02	45		158	953	10.8		1167
	29-Apr-03	6.17	2.78	84.8	222			316
	27-Oct-03	28.5		90.2	698			817
	29-Apr-04	4.01		71.7	178			254
	28-Oct-04	88	24	324	2300			2736
	12-Feb-07	42	20	490	970			1522
	15-Aug-07	28	11 J	360	1300			1699
	12-Mar-08	1.3	21 J	27	88	0.51 J		138
	20-Nov-08	38	15	390	1400	13		1856
	4-Feb-10	ND	ND	110	290	ND	ND	400
	1-May-11	ND	ND	35	81	ND	ND	116
	29-Sep-12	10	8.9	270 D	740 D	6.7	ND	1035.6
	13-Nov-13	ND	ND	180	490	ND	ND	670
	20-Feb-15	ND	ND	200	450	ND	ND	650

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

ATTACHMENT 2

SUMMARY OF HISTORIC ON-SITE GROUNDWATER ANALYTICAL RESULTS

Enarc-O Machine Products, Inc.
Lima, New York
NYSDEC Registry No. 8-26-011

WELL	DATE	COMPOUND						Total VOCs
		1,1,1-TCA	1,1-DCE	cis-1,2-DCE	TCE	PCE	Toluene	
MW-201D	7-Jan-91	NA	NA	NA	NA	NA	NA	NA
	25-Feb-91	NA	NA	NA	NA	NA	NA	NA
	14-Jul-94	390 J		1100	7400	160 J		9050
	2-Nov-94	100 J		830	4000	61 J		4991
	14-Apr-95	200 J	10	680	3800	130 J		4820
	23-Aug-95	660		1500	7700	140 J		10000
	27-Oct-99	250			3510			3760
	8-Feb-00	254		1920 J	4320			6494
	27-Apr-00	450			6430	125		7005
	25-Jul-00	729			12200	162		13091
	19-Oct-00	503		2810	9840	217		13370
	21-Dec-00	197		1670	3240	46.6		5154
	28-Feb-01	267		1960	4780			7007
	19-Apr-01	252		2300	4220	110		6882
	25-Oct-01	301		2840	4770			7911
	11-Apr-02	103		2450	1850			4403
	29-Oct-02	312		2690	5810	136		8948
	29-Apr-03	277		3030	3980			7287
	27-Oct-03	354		2890	8430			11674
	29-Apr-04	201		2620	1890			4711
	28-Oct-04	271		3320	5230	141		8962
	12-Feb-07	190	38	1000	1600	130	ND	2958
	15-Aug-07	2700 D	660	9600 D	46000 D	440	ND	59400
	13-Mar-08	92	21 J	810	3300	40 J	ND	4263
	20-Nov-08	190	34 J	2000	5900	56 J		8180
	4-Feb-10	ND	ND	800	3100	ND	ND	3900
	1-May-11	150	ND	1100	4100	ND	ND	5350
	29-Sep-12	200	ND	1200	5200 D	ND	ND	6600
	13-Nov-13	ND	ND	710	3400	ND	ND	4110
	20-Feb-15	ND	ND	410	2500	ND	ND	2910
SUPPLY	7-Jan-91	NA	NA	NA	NA	NA	NA	NA
	25-Feb-91	NA	NA	NA	NA	NA	NA	NA
	14-Jul-94	NA	NA	NA	NA	NA	NA	NA
	2-Nov-94	NA	NA	NA	NA	NA	NA	NA
	14-Apr-95	6 J		6 J	42	1 J		55
	23-Aug-95		2 J	3 J	160	4 J		169
	27-Oct-99	3			20		2	25
	27-Apr-00	3.37			33.9			37
	25-Jul-00	NS	NS	NS	NS	NS	NS	NS
	19-Oct-00	186	29.9	44.4	1490			1750
	21-Dec-00	4.3		5.44	52.5			62
	28-Feb-01	6.36		4.68	70			81
	19-Apr-01				17.4			17
	25-Oct-01	43.5	5.13	23.4	456			528
	11-Apr-02	3.73		5.15	48.5			57
	29-Oct-02	100	12.2	35.6	980	10.3		1138
	29-Apr-03	2.94		10.9	47			61
	27-Oct-03	126	20.4	52.9	1890			2089
	29-Apr-04				20.5			21
	28-Oct-04	22.4	2.91	15.7	245	2.1		288
	12-Feb-07	8.8		11	120			140
	15-Aug-07	0.91 J		3.1	18			22
	12-Mar-08	8.1	2	30	180 D	2.3		222
	20-Nov-08	1.1	2.9	21	240	2.2 J		267
	4-Feb-10	ND	ND	12	87	ND	ND	99
	1-May-11	ND	ND	ND	7.9	ND	ND	8
	29-Sep-12	ND	ND	ND	8.7	ND	ND	9
	13-Nov-13	ND	ND	5.3	93	ND	ND	98
	20-Feb-15	ND	ND	ND	15	ND	ND	15

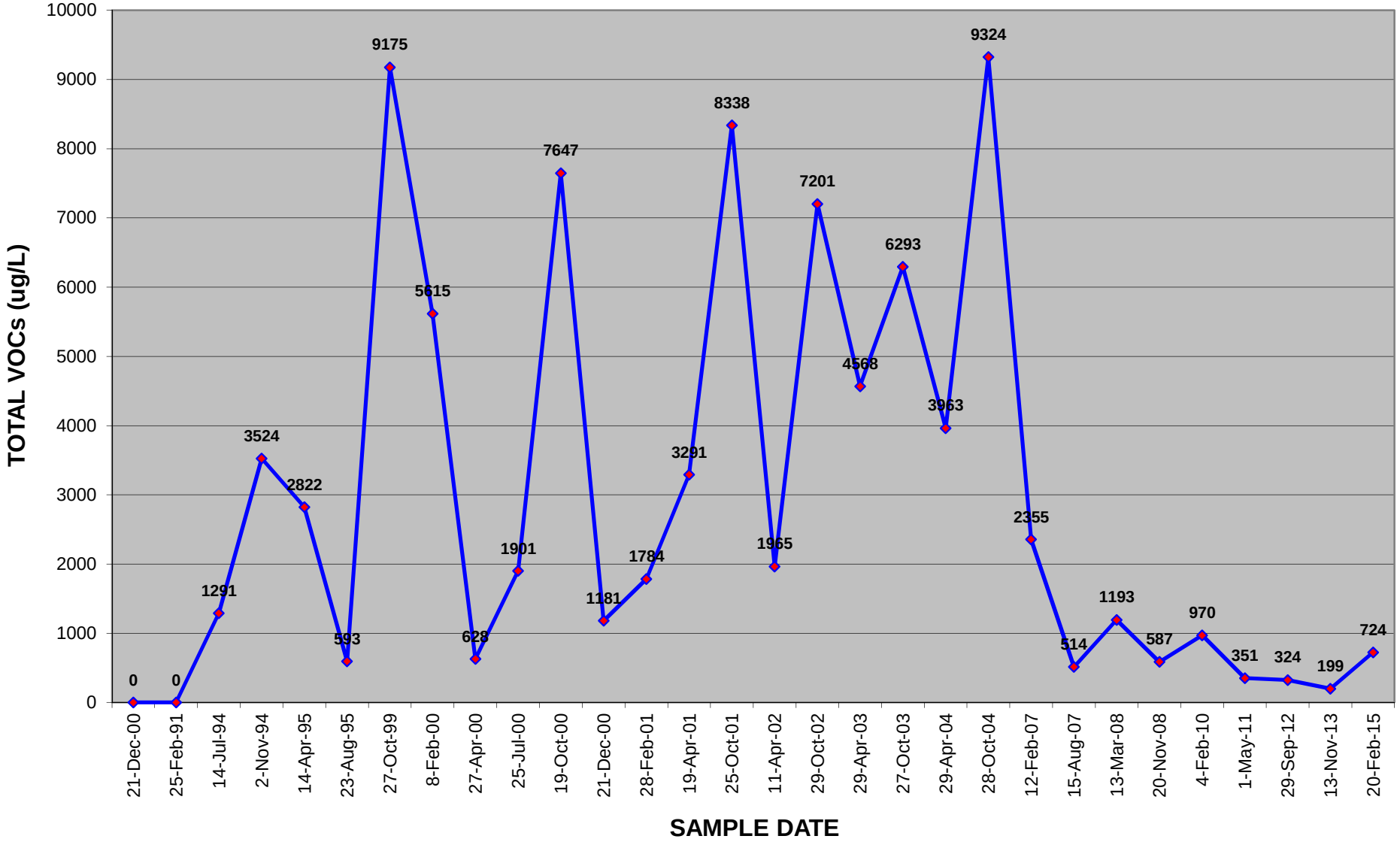
Notes:

1. All concentrations in ug/L or parts-per-billion (ppb).
2. J = Indicates an estimated concentration.
3. U = Indicates compound analyzed for but not detected.
4. D = Compound identified at the secondary dillution factor.
5. NA = Not analyzed.
6. NS = Not Sampled.
7. ND = None detected (blank space also indicates not detected).
8. Heavy dashed and dotted line indicates time after which LNAPL was observed in MW-201D.
9. Historic concentration data provided by Kadis Enarc-O (pre-2007)
10. Highlighted concentrations indicate the February 2015 sampling event.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

HISTORIC ANALYTICAL RESULTS
MW-3

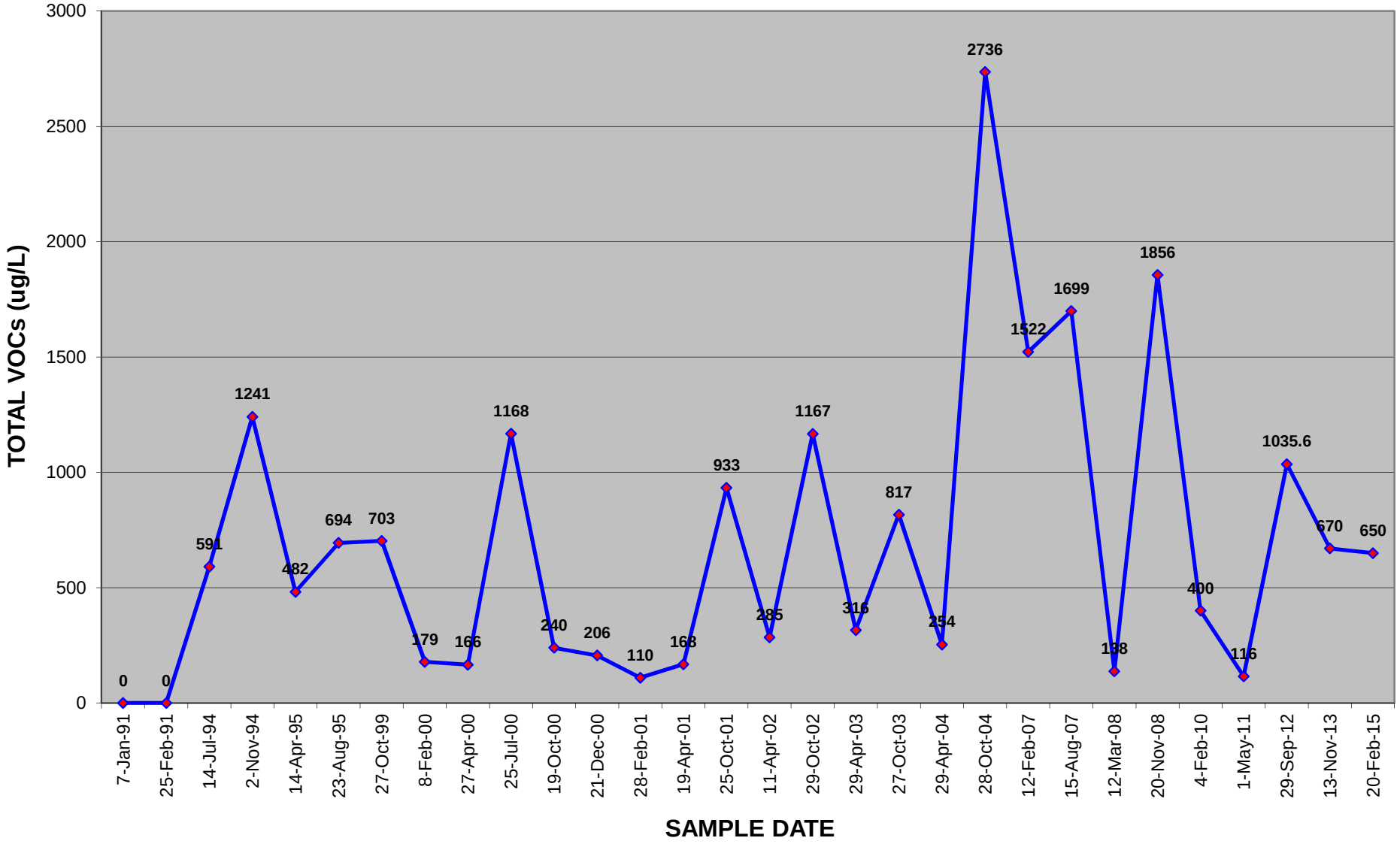
Enarc-O Machine Products
Lima, New York



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

HISTORIC ANALYTICAL RESULTS
MW-5

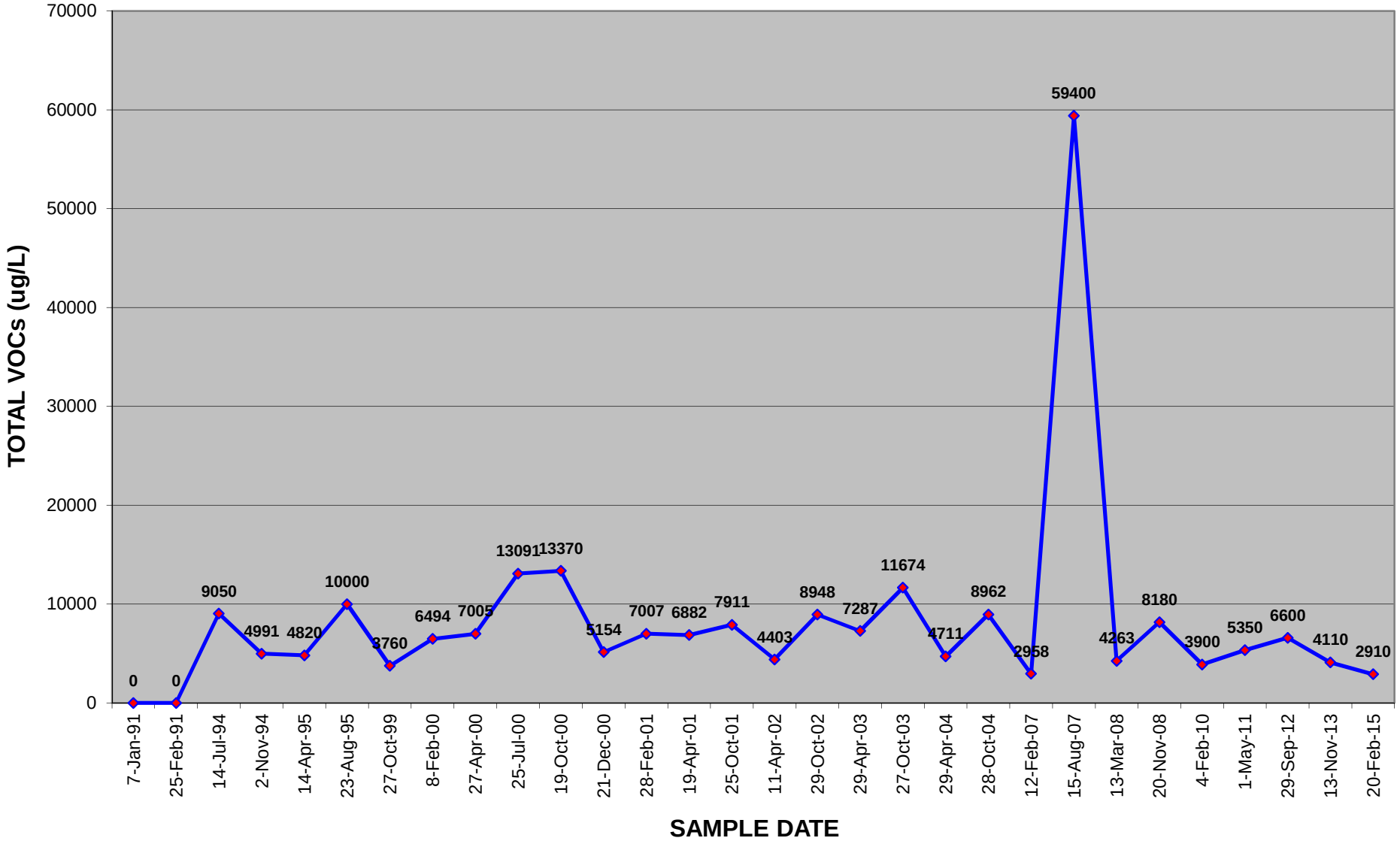
Enarc-O Machine Products
Lima, New York



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

HISTORIC ANALYTICAL RESULTS
MW-201D

Enarc-O Machine Products
Lima, New York



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

HISTORIC ANALYTICAL RESULTS
SUPPLY WELL

Enarc-O Machine Products
Lima, New York