2012 ANNUAL GROUNDWATER MONITORING REPORT

for the
former Jorgensen's Honda Site
East Clarendon, Vermont
DEC Site #90-0532

August 2012

Prepared for:

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PREPARED BY

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KAS Project # 410040083

TABLE OF CONTENTS

I. INTRODUCTION 1

II. GROUNDWATER FLOW DIRECTION AND GRADIENT 1

III. GROUNDWATER SAMPLING AND ANALYSIS 1

IV. SENSITIVE RECEPTOR RISK ASSESSMENT 2

V. CONCLUSIONS 3

VI. RECOMMENDATIONS 3

APPENDICES

APPENDIX A - Maps
- Site Location Map
- Site Map
- Groundwater Contour Map
- Contaminant Concentration Map

APPENDIX B - Liquid Level Monitoring Data

APPENDIX C - Groundwater Monitoring Results Summary

APPENDIX D - Laboratory Analytical Report

I. INTRODUCTION

This report summarizes the July 2012 groundwater monitoring event conducted at the former Jorgensen's Honda facility in East Claredon, Vermont (see Site Location Map, Appendix A). KAS, Inc. (KAS) conducted this work for George Benson Sr., the responsible party for the former Jorgensen's Honda. This work was conducted in accordance with the recommendations made in the *August 2011 Annual Groundwater Monitoring Report* for the site.

II. GROUNDWATER FLOW DIRECTION AND GRADIENT

Water table elevation measurements were collected from the six on-site monitoring wells (MW-1, MW-3, MW-4, MW-18, and MW-19) on July 12, 2012. Monitoring well MW-2 was gauged on July 19, 2012. The depth to groundwater in the wells on July 12, 2012 ranged from 3.49 (MW-1) to 6.45 (MW-3) feet below top-of-casing. The top-of-casing elevations were determined relative to the top of the building foundation slab, which was arbitrarily set at 100.00 feet. The depth to water in each well was subtracted from the top of casing elevation to obtain the relative water table elevation. No free phase product was gauged in the wells on July 12, 2012 or July 19, 2012. Water level data are presented in Appendix B. Water table elevations were plotted on the Site Map to generate the Groundwater Contour Map (Appendix A). The water table elevations of this sampling event are consistent with previous results.

The relative water table elevations measured on July 12, 2012 suggest that groundwater flow at the site is directed generally toward the northwest at an approximate hydraulic gradient of 2.0%. This flow direction and gradient are consistent with previous results.

III. GROUNDWATER SAMPLING AND ANALYSIS

KAS collected groundwater samples from one site monitoring well (MW-2) on July 19, 2012. The other monitoring wells have been removed from the sampling schedule. The groundwater samples were collected according to KAS' groundwater sampling protocol, stored on ice in the field, and submitted to Endyne, Inc. of Williston, Vermont under proper chain-of-custody procedures. The groundwater samples were analyzed for the major petroleum related VOCs by EPA Method 8021B.

One trip blank and one duplicate sample (MW-15) were collected for quality assurance/quality control (QA/QC). The results of the duplicate sample analysis were analyzed using a relative percent difference (RPD) method. The RPD is defined as 100 times the difference between the sample result and the duplicate result, divided by the mean of the sample and duplicate result. The RPD calculations are presented in the Groundwater Quality Summary in Appendix C. Due to non detection of any of the tested compounds in either the sample or the duplicate, an RPD could not be calculated. The effect of spurious influences on sample quality was insignificant, as none of the tested compounds were reported above detection limits in the trip blank collected on July 12, 2012.

Select compounds were reported above laboratory reporting limits, none of which exceeded the Vermont Groundwater Enforcement Standards (VGES) in the groundwater sample collected from MW-2. Total targeted VOCs continue to fluctuate, but remain at relatively low levels. Total

reported VOCs have decreased by 95.6%, since peak observations were observed in 2001. Total BTEX has decreased by over 99%, since sampling began in September 1993. Overall, contamination at the site has decreased significantly since 1993.

The analytical results were plotted to show the concentration of dissolved contamination across the Site (see Contaminant Concentration Map, Appendix A). Based on the low to non-detectable VOC concentrations most recently reported in the remaining site monitoring wells, it appears the contaminant plume is limited to the immediate vicinity of MW-2. Analytical results of the groundwater samples collected on July 19, 2012 from monitoring well MW-2 are summarized and graphed in Appendix C along with the applicable Vermont Groundwater Enforcement Standards (VGES) for the target petroleum compounds. The laboratory analysis report for the July 19, 2012 sampling event is included in Appendix D.

IV. SENSITIVE RECEPTOR RISK ASSESSMENT

A sensitive receptor risk assessment of the area surrounding the Site is provided below, and a determination of the potential risk to identified receptors has been made based on proximity to the contaminant plume, groundwater flow direction, contaminant mobility and volatility, and contaminant concentration levels in subsurface soils and groundwater. To date only one sensitive receptor (nearby drinking water supply wells) other than site soil and groundwater has been identified as being impacted from the subsurface petroleum contamination originating from the Site.

The Site and nearby properties are serviced by private drinking water supply wells. Several of the nearby supply wells have been identified as being impacted from subsurface petroleum contamination and these wells are monitored on a periodic basis. A report on the monitoring of these supply wells is submitted under separate cover. Monitoring of the on site drinking water supply well has not been conducted since July 2006 since the building has been vacant and the system appears to have been removed. Historically, the on site drinking water supply well has contained low levels of petroleum VOCs.

A Class II wetland is located approximately 300-400 feet southeast of the site property. An unnamed stream flows to this wetland area. An additional Class II wetland is located approximately 600-700 feet west of the site property. Based on the documented groundwater flow and/or the lack of VOCs historically reported in the downgradient monitoring wells, risk to these surface waters and wetland areas appears to be low at this time. No other wetlands or surface water bodies are located in close proximity to the Site.

There are no known buried utilities in the vicinity of the site property. One main structure is present on the property, the warehouse/office building. The building is built on slab and lies in a cross to down gradient location to the reported contamination. As of July 2012, the building has been reoccupied. Based on the July 2012 findings it does not appear that the on site building or nearby buildings are at risk to vapor intrusion.

Based on the data collected in July 2012 no new sensitive receptors, other than nearby drinking water supply wells, soil and groundwater, have been identified as being at risk to petroleum contamination originating from the Site.

V. CONCLUSIONS

Based on the results of the July 2012 sampling event at the former Jorgensen's Honda, KAS has reached the following conclusions:

1. Direction of groundwater flow on July 12, 2012 was estimated to be directed towards the northwest at an approximate hydraulic gradient of 2.0%, which is consistent with previous estimates;

2. Groundwater in the vicinity of site monitoring well MW-2 remains contaminated with dissolved petroleum compounds at concentrations above laboratory reporting limits, although not exceeding the VGES;

3. Overall, contamination at the site is decreasing. Total targeted VOCs in MW-2 have decreased by 99.6% since 2001 and total BTEX concentrations have decreased by over 99% since 1993;

4. Quarterly and annual monitoring of nearby water treatment systems is being conducted to monitor identified sensitive receptors in the vicinity of the Site; and,

5. Contaminant concentrations in MW-2 are expected to continue to decrease as natural attenuation proceeds to breakdown the contaminants.

VI. RECOMMENDATIONS

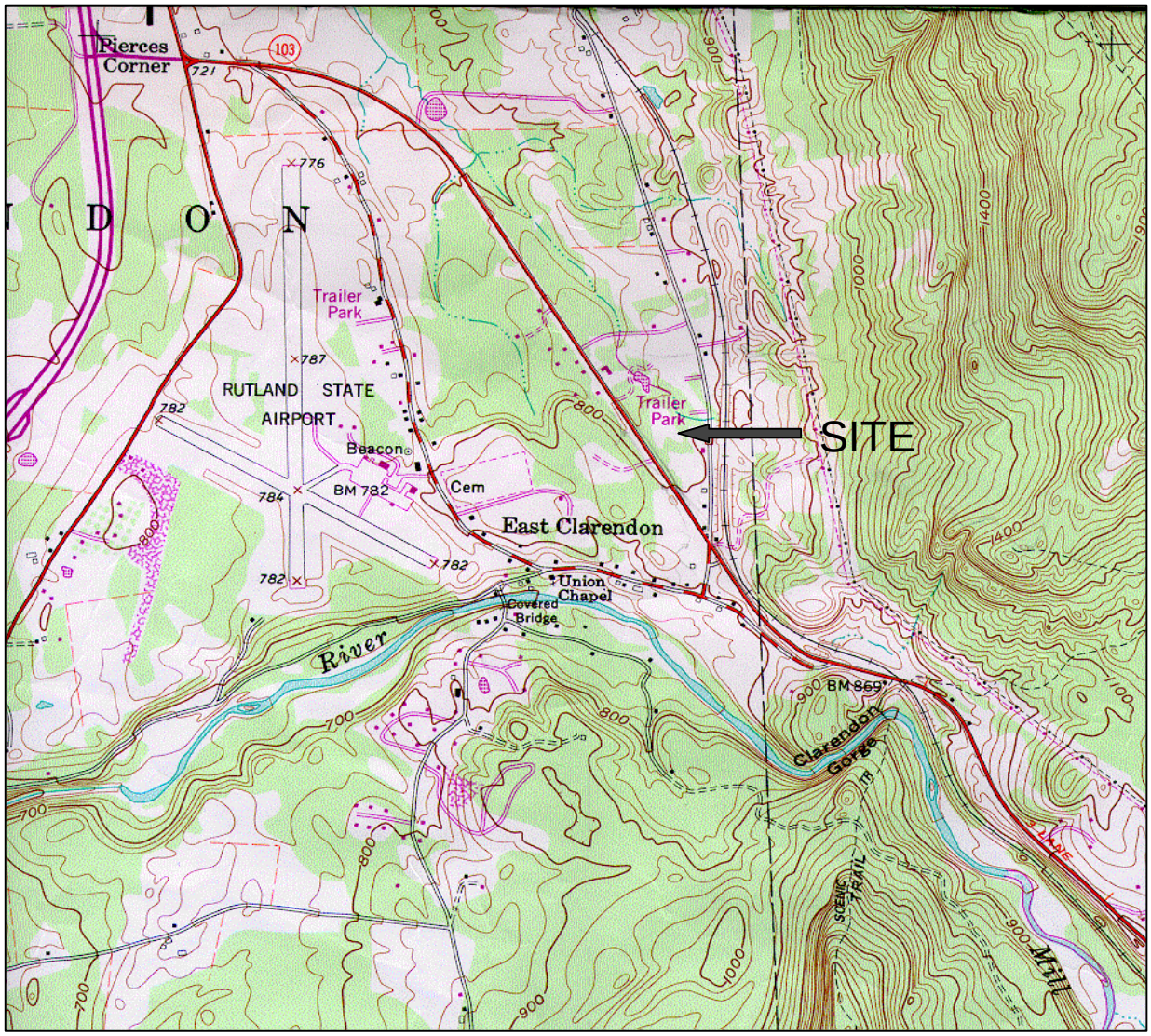
Although contamination levels in the vicinity of MW-2 are below the VGES, contamination has fluctuated over time, and therefore KAS recommends that groundwater monitoring continue on an annual basis to determine the effect that natural attenuation is having on contaminant levels.

The next round of groundwater monitoring should be scheduled for the July 2013. Monitoring well MW-2 should be sampled and analyzed for petroleum compounds by EPA Method 8021B. All eight monitoring wells should be gauged to determine groundwater flow.

APPENDIX A

Maps

Site Location Map
Site Map
Groundwater Contour Map
Contaminant Concentration Map



KAS Job Number: *410040082 & 410040083*

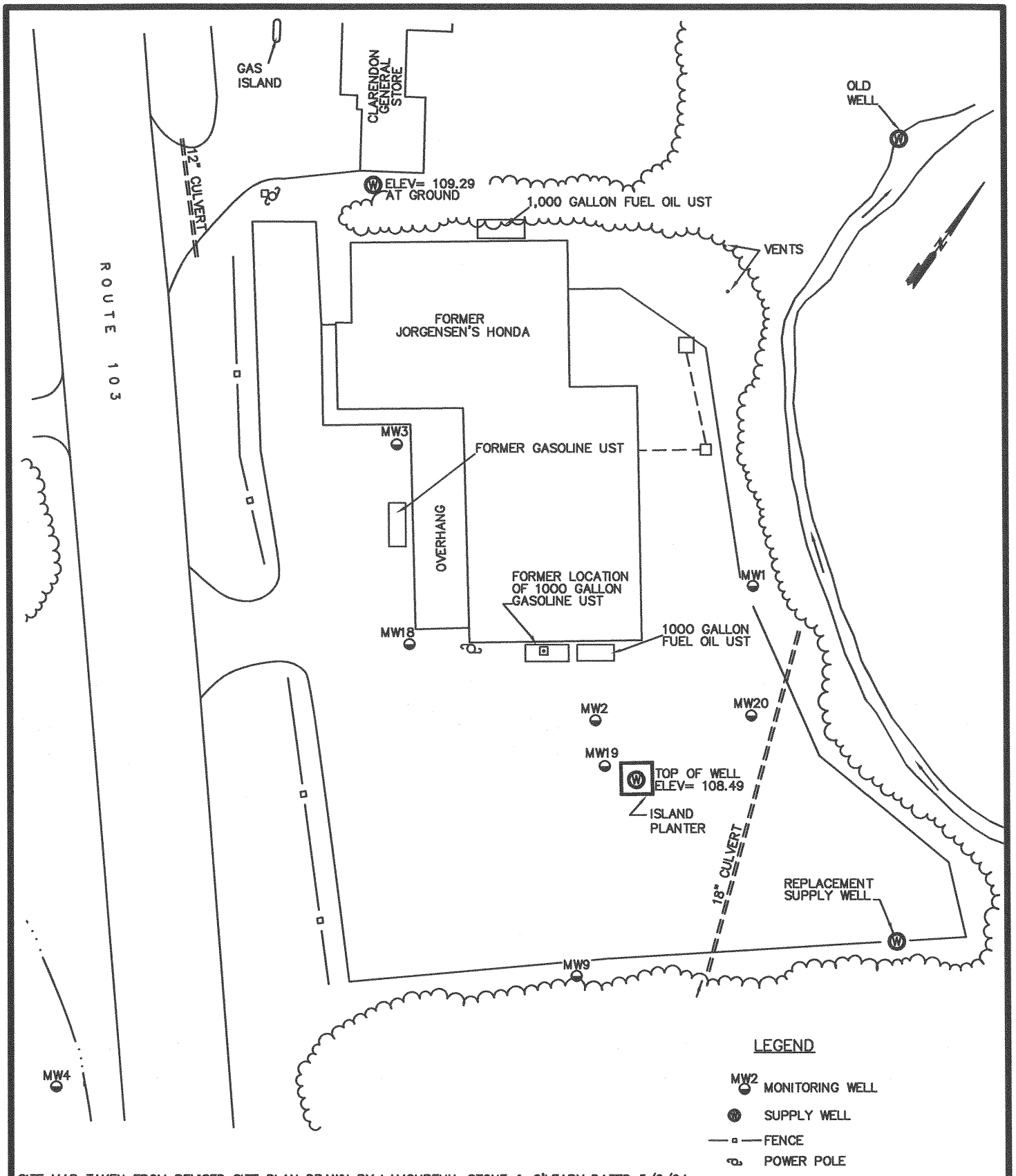
Source: *USGS Mapping Rutland 7.5' Quadrangle 1961, Revised 1998*

KAS INC

Former Jorgensen's Honda
Clarendon General Store

Site Location Map
USGS Mapping

Date: 02/01/07	Drawing No. 0	Scale: 1:24,000	By: KR



SITE MAP TAKEN FROM REVISED SITE PLAN DRAWN BY LAMOUREUX, STONE & O'LEARY DATED 5/6/94.

VTDEC #: 90-0532
ESPC #: 20054159
KAS #: 410040083

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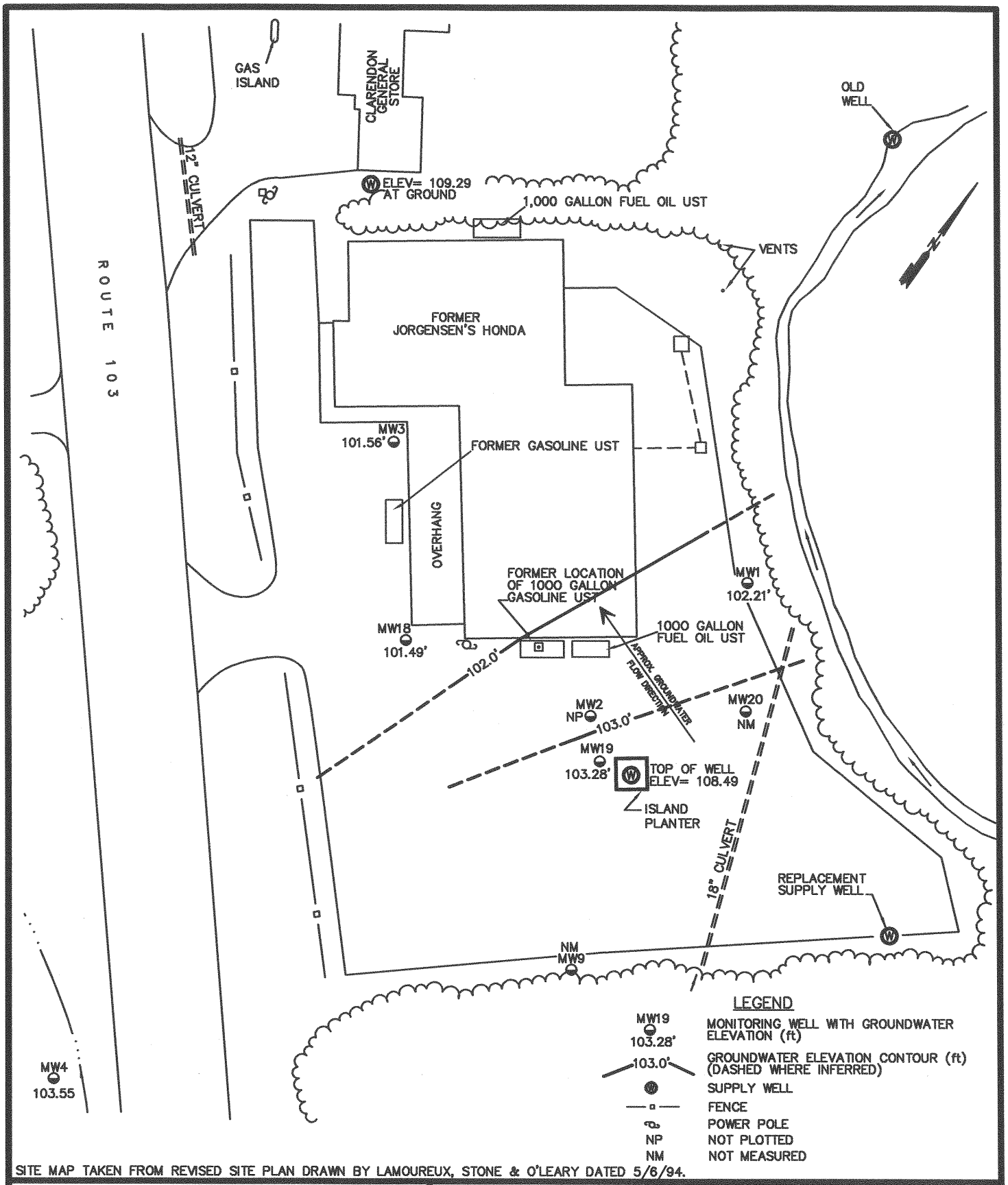
FORMER JORGENSEN'S HONDA
EAST CLARENDON, VERMONT

SITE MAP

DATE: 8/2/12	DWG.#: 1	SCALE: 1"= 50'	DRN.: DM	APP.: LM



SITE MAP TAKEN FROM REVISED SITE PLAN DRAWN BY LAMOUREUX, STONE & O'LEARY DATED 5/6/94.

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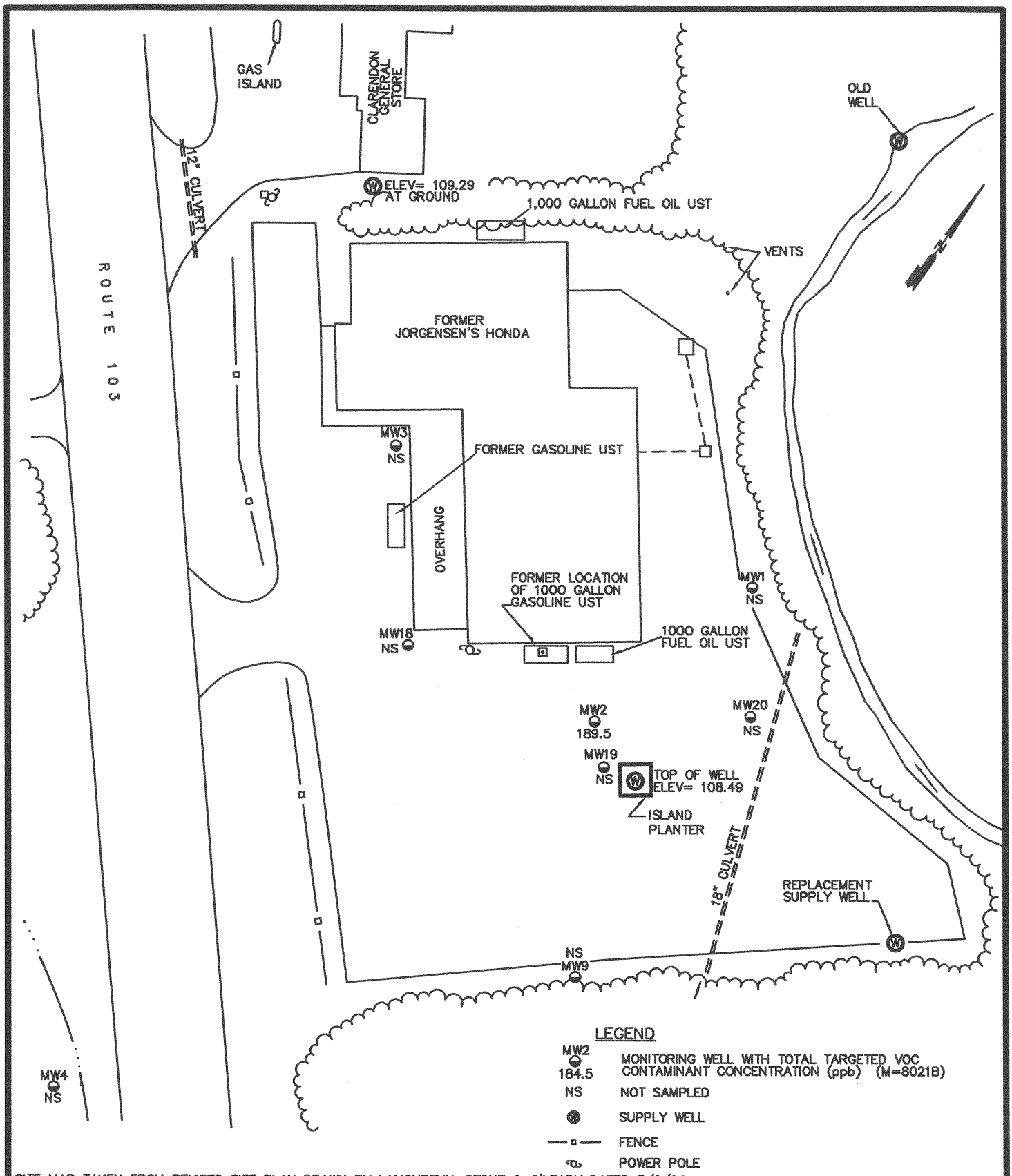
FORMER JORGENSEN'S HONDA
EAST CLARENDON, VERMONT

GROUNDWATER CONTOUR MAP

MEASURED: 7/12/12

DATE: 8/2/12	DWG.#: 2	SCALE: 1"= 50'	DRN.: DM	APP.: LM



SITE MAP TAKEN FROM REVISED SITE PLAN DRAWN BY LAMOUREUX, STONE & O'LEARY DATED 5/6/94.

VTDEC #: 90-0532
ESPC #: 20054159
KAS #: 410040083

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FORMER JORGENSEN'S HONDA
EAST CLARENDON, VERMONT

CONTAMINANT CONCENTRATION MAP

SAMPLED: 7/12/12

DATE: 8/2/12	DWG.#: 3	SCALE: 1"= 50'	DRN.: DM	APP.: LM

APPENDIX B

Liquid Level Monitoring Data

KAS, Inc.

Liquid Level Monitoring Data

East Clarendon Store
and Jorgensen's Honda
East Clarendon, Vermont

Monitoring Date: 7/12/12

Well I.D.	Top of Casing Elevation	Depth To Product	Depth To Water	Product Thickness	Specific Gravity Of Product	Hydro Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	105.70		3.49					102.21
MW-2	106.23		2.83*					103.40
MW-3	108.01		6.45					101.56
MW-4	107.13		3.58					103.55
MW-6	102.39		8.20					94.19
MW-7	105.53		7.94					97.59
MW-8	106.23		8.80					97.43
MW-9	106.38		NM					NM
MW-12	99.68		5.71					93.97
MW-13	100.76		5.04					95.72
MW-15	102.44		6.59					95.85
MW-16	103.38		dry					dry
MW-17	105.58		NM					NM
MW-18	107.91		6.42					101.49
MW-19	106.87		3.59					103.28
MW-20	105.74		NM					NM

All Values Reported in feet
NA - Not Applicable
NM - Not Measured
Top of casing elevations surveyed by Griffin International, Inc.
*measured 7/19/12

APPENDIX C

Groundwater Monitoring Results Summary

Monitoring Well MW-2

M602 PARAMETER	Sampling Date											VGES
	9/24/1993	*10/14/1993*	*11/22/1993*	*12/16/1993*	*2/15/1994*	*3/11/1994*	*4/14/1994*	*4/25/1994*	*5/10/1994*	*6/14/1994*	*7/15/1994*	
Benzene	**4,520.**	**4,350.**	**1,110.**	**TBQ**	**360.**	**152.**	**182.**	ND	**837.**	**472.**	**299.**	5.0
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100.
1,2-DCB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	620.
1,3-DCB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	620.
1,4-DCB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	75.
Ethylbenzene	**1,130.**	**1,360.**	**1,150.**	**465.**	**499.**	**416.**	**378.**	ND	**229.**	**248.**	**153.**	620.
Toluene	**18,800.**	**15,300.**	**6,990.**	**3,920.**	**5,080.**	**2,900.**	**750.**	**466.**	**2,050.**	**1,770.**	**1,400.**	2,420.
Xylenes	**15,400.**	**15,100.**	**8,040.**	**6,210.**	**7,500.**	**6,470.**	**5,370.**	**3,210.**	**4,310.**	**4,700.**	**4,320.**	400.
Total BTEX	**39,850.**	**36,110.**	**17,290.**	**10,595.**	**13,439.**	**9,938.**	**6,680.**	**3,676.**	**7,426.**	**7,190.**	**6,172.**	--
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Ground Water Elevation	101.95	102.89	103.43	98.06	102.67	103.22	105.28		104.59	104.66	101.86	

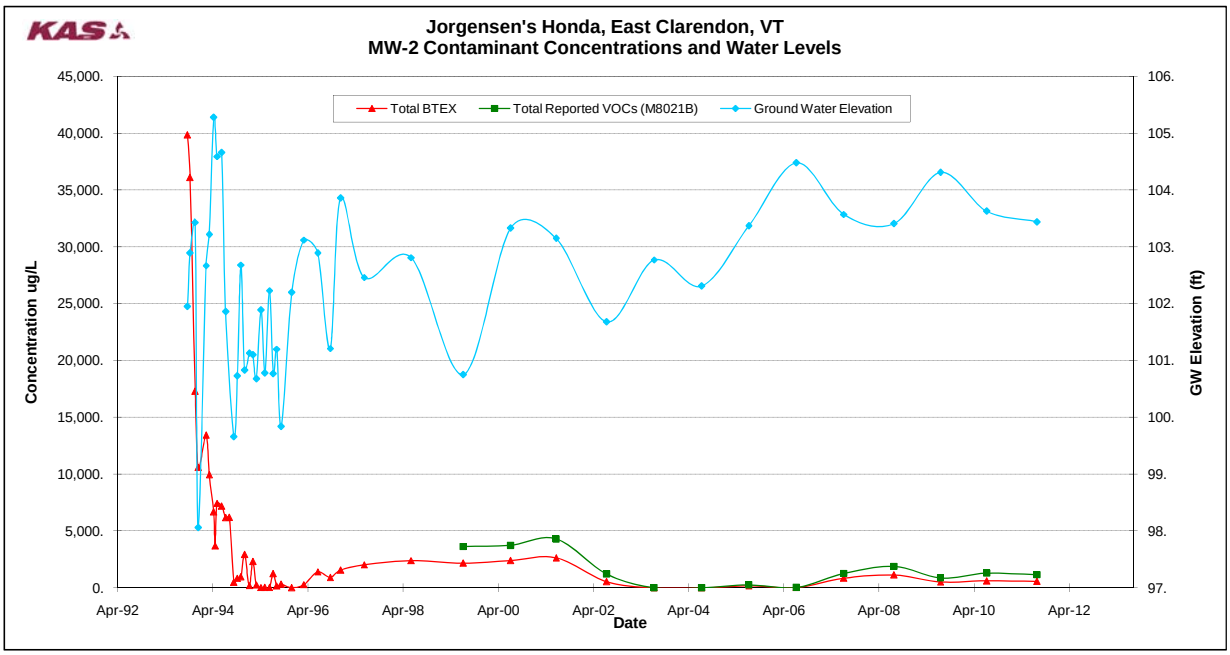
M602 PARAMETER	Sampling Date											VGES
	8/12/1994	*9/15/1994*	*10/13/1994*	*11/8/1994*	*12/7/1994*	*1/12/1995*	*2/9/1995*	*3/8/1995*	*4/12/1995*	*5/12/1995*	*6/16/1995*	
Benzene	**240.**	**86.**	**60.4**	**43.3**	**62.5**	ND	ND	**TBQ**	ND	**TBQ**	**3.3**	5.0
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100.
1,2-DCB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	620.
1,3-DCB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	620.
1,4-DCB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	75.
Ethylbenzene	**254.**	**16.**	**31.6**	**76.7**	**267.0**	**14.7**	**246.**	**24.6**	**2.4**	**3.0**	**4.0**	620.
Toluene	**1,110.**	**71.**	**223.**	**94.**	**367.**	**13.1**	**238.**	**12.5**	**2.3**	**2.6**	**4.4**	2,420.
Xylenes	**4,600.**	**306.**	**521.**	**745.**	**2,240.**	**161.**	**1,820.**	**205.**	**15.3**	**25.4**	**21.3**	400.
Total BTEX	**6,204.**	**480.**	**836.**	**959.**	**2,937.**	**189.**	**2,304.**	**242.**	**20**	**31**	**33**	--
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Ground Water Elevation		99.66	100.73	102.68	100.83	101.13	101.10	100.68	101.89	100.78	102.23	

M602 PARAMETER	Sampling Date											VGES
	7/14/1995	*8/10/1995*	*9/14/1995*	*12/4/1995*	*3/6/1996*	*6/21/1996*	*9/25/1996*	*12/13/1996*	*6/12/1997*	*6/8/1998*		
Benzene	**34.0**	**1.7**	ND	ND	**8.5**	**41.8**	**77.8**	**63.1**	**149.0**	**123.**		5.0
Chlorobenzene	ND	ND	ND	ND	ND	ND(10.)	ND(10.)	ND(10.)	ND(10.)	ND(10.)		100.
1,2-DCB	ND	ND	ND	ND	ND	ND(10.)	ND(10.)	ND(10.)	ND(10.)	ND(10.)		620.
1,3-DCB	ND	ND	ND	ND	ND	ND(10.)	ND(10.)	ND(10.)	ND(10.)	ND(10.)		620.
1,4-DCB	ND	ND	ND	ND	ND	ND(10.)	ND(10.)	ND(10.)	ND(10.)	ND(10.)		75.
Ethylbenzene	**128.**	**25.3**	**37.1**	ND	**26.5**	**132.**	**259.**	**176.**	**269.**	**313.**		620.; 700.
Toluene	**270.**	**10.6**	**18.5**	ND	**48.2**	**260.**	**425.**	**263.**	**311.**	**416.**		2,420.; 1,000.
Xylenes	**817.**	**122.**	**259.**	**5.4**	**188.**	**958.**	**147.**	**1,040.**	**1,290.**	**1,530.**		400.; 10,000.
Total BTEX	**1,249.**	**160.**	**315.**	**5**	**271.**	**1,392.**	**909.**	**1,542.**	**2,019.**	**2,382.**		--
MTBE	ND	**TBQ**	ND	ND	ND	ND(100.)	ND(100.)	ND(100.)	**131.**	ND(100.)		none; 40.
Ground Water Elevation	100.77	101.20	99.84	102.20	103.12	102.89	101.21	103.86	102.46	102.81		--

M8021B PARAMETER	Sampling Date											VGES
	7/13/1999	*7/11/2000*	*6/25/2001*	*7/18/2002*	*7/17/2003*	*7/16/2004*	*7/13/2005*	*7/13/2006*	*7/12/2007*	*7/31/2008*	*7/24/2009*	
MTBE	ND(100.)	ND(100.)	ND(200.)	ND(8.0)	ND(2.0)	ND(2.0)	ND(10.0)	ND(2.0)	**56.5**	ND(40.0)	ND(10.0)	40.
Benzene	**185.**	**101.**	**85.7**	**8.8**	ND(1.0)	ND(1.0)	ND(5.0)	ND(1.0)	ND(10.0)	ND(20.0)	ND(5.0)	5.
Toluene	**305.**	**333.**	**337.**	**49.0**	ND(1.0)	ND(1.0)	**36.6**	**5.6**	**120.**	**130.**	**79.2**	1,000.
Ethylbenzene	**313.**	**330.**	**307.**	**109.**	ND(1.0)	ND(1.0)	**21.5**	**1.4**	**134.**	**189.**	**114.**	700.
Xylenes	**1,360.**	**1,630.**	**1,900.**	**368.**	ND(2.0)	ND(2.0)	**107.**	**7.4**	**587.**	**802.**	**315.**	10,000.
1,3,5-Trimethylbenzene	**273.**	**245.**	**331.**	**106.**	ND(1.0)	ND(1.0)	**13.5**	**2.8**	**46.1**	**143.**	**24.3**	350.
1,2,4-Trimethylbenzene	**868.**	**857.**	**1,040.**	**437.**	**1.8**	**1.3**	**55.9**	**6.7**	**250.**	**473.**	**255.**	
Naphthalene	**315.**	**230.**	**289.**	**127.**	**1.6**	ND(1.0)	**14.9**	ND(2.0)	**58.6**	**138.**	**69.8**	20.
Total BTEX	**2,163.**	**2,394.**	**2,630.**	**535.**	ND	ND	**165.**	**14.4**	**841.**	**1,121.**	**508.**	--
Total Reported VOCs (M8021B)	**3,619.**	**3,726.**	**4,290.**	**1,205.**	**3.4**	**1.3**	**249.**	**23.9**	**1,252.**	**1,875.**	**857.**	--
Ground Water Elevation	100.75	103.33	103.15	101.68	102.77	102.31	103.37	104.48	103.57	103.41	104.31	--

M8021B PARAMETER	Sampling Date											VGES
	7/13/2010	*8/3/2011*	*7/19/2012*									
MTBE	ND(10.0)	**12.3**	ND(4.0)									40.
Benzene	ND(5.0)	ND(5.0)	ND(2.0)									5.
Toluene	**31.6**	**34.1**	**5.8**									1,000.
Ethylbenzene	**137.**	**139.**	**27.3**									700.
Xylenes	**430.**	**387.**	**56.4**									10,000.
1,3,5-Trimethylbenzene	**79.5**	**80.9**	**7.8**									350.
1,2,4-Trimethylbenzene	**498.**	**387.**	**73.4**									
Naphthalene	**105.**	**103.**	**18.8**									20.
Total BTEX	**599.**	**560.**	**89.5**									--
Total Reported VOCs (M8021B)	**1,281.**	**1,143.**	**189.5**									--
Ground Water Elevation	103.63	103.44	103.40									--

NOTES:
Results reported above detection limits are indicated in **bold**.
VGES - Vermont Groundwater Enforcement Standards
VGES values are time specific; where two values are given, the first is pre-11/97 and the second is post-11/97.
Values greater than the VGES (Table 1 of the Groundwater Protection Rule and Strategy) are shaded. **>VGES**
EPA Method 602 used for laboratory analysis through 6/98
EPA Method 8021B used for laboratory analysis 7/99 and later
All values reported in ug/l (ppb) unless otherwise noted
ND(X) - Not Detected (Detection Limit)
TBQ(X) - Trace Below Quantitation Limit (Quantitation Limit)
NA - Not analyzed for this parameter
NS - Not Sampled
FP - Free Product
Data from 9/24/93 to 7/16/04 was collected by Griffin International, Inc.


Jorgensen's Honda, East Clarendon, VT
MW-2 Contaminant Concentrations and Water Levels
Total BTEX
Total Reported VOCs (M8021B)
Ground Water Elevation
Concentration ug/L
GW Elevation (ft)
Date
45,000.
40,000.
35,000.
30,000.
25,000.
20,000.
15,000.
10,000.
5,000.
0.
106.
105.
104.
103.
102.
101.
100.
99.
98.
97.
Apr-92
Apr-94
Apr-96
Apr-98
Apr-00
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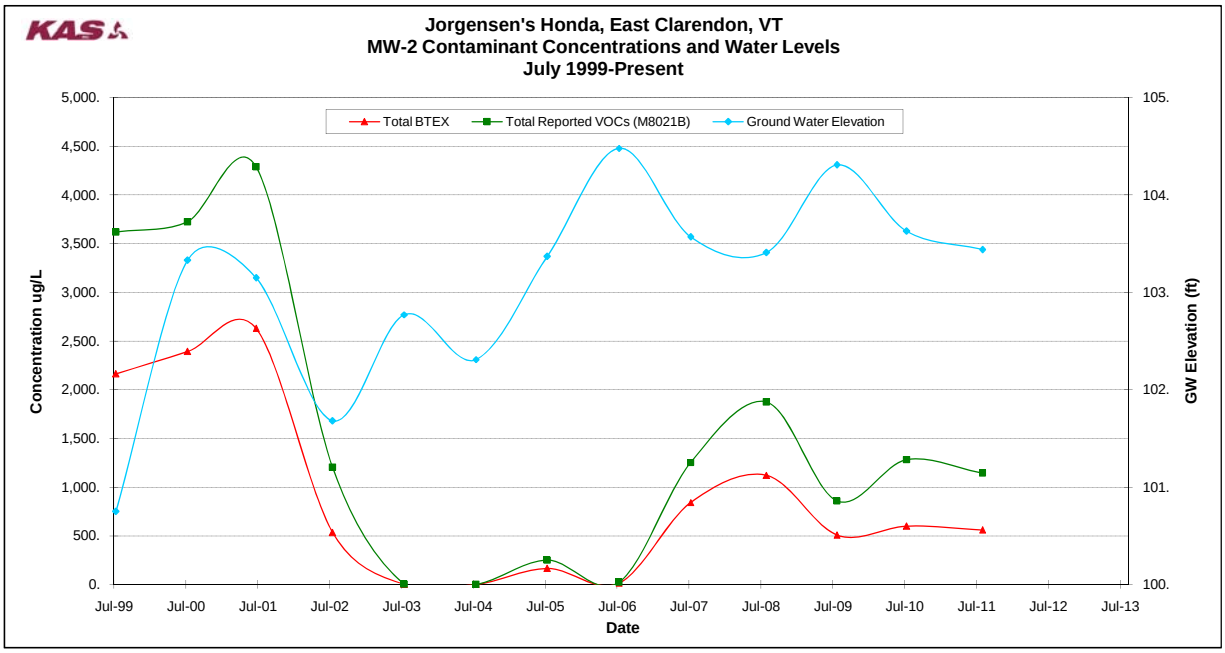
Apr-12


Jorgensen's Honda, East Clarendon, VT
MW-2 Contaminant Concentrations and Water Levels
July 1999-Present
Total BTEX
Total Reported VOCs (M8021B)
Ground Water Elevation
Concentration ug/L
GW Elevation (ft)
Date
5,000.
4,500.
4,000.
3,500.
3,000.
2,500.
2,000.
1,500.
1,000.
500.
0.
105.
104.
103.
102.
101.
100.
Jul-99
Jul-00
Jul-01
Jul-02
Jul-03
Jul-04
Jul-05
Jul-06
Jul-07
Jul-08
Jul-09
Jul-10
Jul-11
Jul-12
Jul-13

Monitoring Date: 7/12/12

PARAMETER	Trip Blank	MW-15	Duplicate (MW-15)	RPD (%)
MTBE	ND<2.0	ND<2.0	ND<2.0	**n/a**
Benzene	ND<1.0	ND<1.0	ND<1.0	**n/a**
Toluene	ND<1.0	ND<1.0	ND<1.0	**n/a**
Ethylbenzene	ND<1.0	ND<1.0	ND<1.0	**n/a**
Xylenes	ND<2.0	ND<2.0	ND<2.0	**n/a**
1,3,5-TMB*	ND<1.0	ND<1.0	ND<1.0	**n/a**
1,2,4-TMB*	ND<1.0	ND<1.0	ND<1.0	**n/a**
Naphthalene	ND<1.0	ND<1.0	ND<1.0	**n/a**
Total Reported VOCs (M8021B)	ND	ND	ND	**n/a**

The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates good correlation between sample and duplicate.

NOTES:

Results reported above detection limits are indicated in **bold**.

VGES - Vermont Groundwater Enforcement Standards (Table 1 of the GW Protection Rule and Strategy)

Values greater than the VGES are shaded. **>VGES**

EPA Method 8021B used for laboratory analysis 7/99 and later

All values reported in ug/l (ppb) unless otherwise noted

ND(X) - Not Detected (Detection Limit)

TBQ(X) - Trace Below Quantitation Limit (Quantitation Limit)

NA - Not analyzed for this parameter

n/a - Not Applicable

NS - Not Sampled

APPENDIX D

Laboratory Analytical Report

ENDYNE Inc.
Environmental Laboratories

Laboratory Report

KAS, Inc.	100306
PO Box 787	
Williston, VT 05495	
Atten: Lauren Morley	

PROJECT: 410040082-83 E.Clarendon
WORK ORDER: **1207-10589**
DATE RECEIVED: July 20, 2012
DATE REPORTED: July 26, 2012
SAMPLER: Lauren Morley

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:

Harry B. Locker, Ph.D.
Laboratory Director

CLIENT: KAS, Inc.
PROJECT: 410040082-83 E.Clarendon
REPORT DATE: 7/26/2012

WORK ORDER: **1207-10589**
DATE RECEIVED: 07/20/2012

TEST METHOD: EPA 8021B

001 Site: MW-2 Date Sampled: 7/19/12 11:15 Analysis Date: 7/25/12 W RBF

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 4.0	ug/L	N		Benzene	< 2.0	ug/L	N	
Toluene	5.8	ug/L	N		Ethylbenzene	27.3	ug/L	N	
Xylenes, Total	56.4	ug/L	N		1,3,5-Trimethylbenzene	7.8	ug/L	N	
1,2,4-Trimethylbenzene	73.4	ug/L	N		Naphthalene	18.8	ug/L	N	
Surr. 1 (Bromobenzene)	88	%	N		Unidentified Peaks	> 10		N	

TEST METHOD: EPA 524.2

002 Site: Corey Influent Date Sampled: 7/19/12 12:08 Analysis Date: 7/23/12 W RBF

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	2.9	ug/L	A		Benzene	< 0.5	ug/L	A	
Toluene	< 0.5	ug/L	A		Ethylbenzene	< 0.5	ug/L	A	
Xylenes, Total	< 1.0	ug/L	A		Isopropylbenzene	< 0.5	ug/L	A	
n-Propylbenzene	< 0.5	ug/L	A		1,3,5-Trimethylbenzene	< 0.5	ug/L	A	
t-Butylbenzene	< 0.5	ug/L	A		1,2,4-Trimethylbenzene	< 0.5	ug/L	A	
s-Butylbenzene	< 0.5	ug/L	A		4-Isopropyltoluene	< 0.5	ug/L	A	
n-Butylbenzene	< 0.5	ug/L	A		Naphthalene	< 0.5	ug/L	A	
Surr. 1 (4-Bromofluorobenzene)	97	%	A		Surr. 2 (1,2-Dichlorobenzene d4)	96	%	A	
Unidentified Peaks	0		U						

TEST METHOD: EPA 524.2

003 Site: Corey Mid Date Sampled: 7/19/12 12:07 Analysis Date: 7/23/12 W RBF

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 0.5	ug/L	A		Benzene	< 0.5	ug/L	A	
Toluene	< 0.5	ug/L	A		Ethylbenzene	< 0.5	ug/L	A	
Xylenes, Total	< 1.0	ug/L	A		Isopropylbenzene	< 0.5	ug/L	A	
n-Propylbenzene	< 0.5	ug/L	A		1,3,5-Trimethylbenzene	< 0.5	ug/L	A	
t-Butylbenzene	< 0.5	ug/L	A		1,2,4-Trimethylbenzene	< 0.5	ug/L	A	
s-Butylbenzene	< 0.5	ug/L	A		4-Isopropyltoluene	< 0.5	ug/L	A	
n-Butylbenzene	< 0.5	ug/L	A		Naphthalene	< 0.5	ug/L	A	
Surr. 1 (4-Bromofluorobenzene)	103	%	A		Surr. 2 (1,2-Dichlorobenzene d4)	101	%	A	
Unidentified Peaks	0		U						

CLIENT: KAS, Inc.
PROJECT: 410040082-83 E.Clarendon
REPORT DATE: 7/26/2012

WORK ORDER: **1207-10589**
DATE RECEIVED: 07/20/2012

TEST METHOD: EPA 524.2

004 Site: Corey Effluent Date Sampled: 7/19/12 12:06 Analysis Date: 7/23/12 W RBF

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 0.5	ug/L	A		Chloromethane	< 0.5	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 0.5	ug/L	A		Trichlorofluoromethane	< 0.5	ug/L	A	
1,1-Dichloroethene	< 0.5	ug/L	A		Methylene chloride	< 1.0	ug/L	A	
Methyl-t-butyl ether (MTBE)	< 0.5	ug/L	A		trans-1,2-Dichloroethene	< 0.5	ug/L	A	
1,1-Dichloroethane	< 0.5	ug/L	A		2,2-Dichloropropane	< 0.5	ug/L	A	
cis-1,2-Dichloroethene	< 0.5	ug/L	A		Bromochloromethane	< 0.5	ug/L	A	
Chloroform	< 0.5	ug/L	A		1,1,1-Trichloroethane	< 0.5	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 0.5	ug/L	A	
Benzene	< 0.5	ug/L	A		1,2-Dichloroethane	< 0.5	ug/L	A	
Trichloroethene	< 0.5	ug/L	A		1,2-Dichloropropane	< 0.5	ug/L	A	
Dibromomethane	< 0.5	ug/L	A		Bromodichloromethane	< 0.5	ug/L	A	
cis-1,3-Dichloropropene	< 0.5	ug/L	A		Toluene	< 0.5	ug/L	A	
trans-1,3-Dichloropropene	< 0.5	ug/L	A		1,1,2-Trichloroethane	< 0.5	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 0.5	ug/L	A	
Dibromochloromethane	< 0.5	ug/L	A		Chlorobenzene	< 0.5	ug/L	A	
Ethylbenzene	< 0.5	ug/L	A		1,1,1,2-Tetrachloroethane	< 0.5	ug/L	A	
Xylenes, Total	< 1.0	ug/L	A		Styrene	< 0.5	ug/L	A	
Bromoform	< 0.5	ug/L	A		Isopropylbenzene	< 0.5	ug/L	A	
1,1,2,2-Tetrachloroethane	< 0.5	ug/L	A		Bromobenzene	< 0.5	ug/L	A	
n-Propylbenzene	< 0.5	ug/L	A		1,2,3-Trichloropropane	< 0.5	ug/L	A	
2-Chlorotoluene	< 0.5	ug/L	A		1,3,5-Trimethylbenzene	< 0.5	ug/L	A	
4-Chlorotoluene	< 0.5	ug/L	A		t-Butylbenzene	< 0.5	ug/L	A	
1,2,4-Trimethylbenzene	< 0.5	ug/L	A		s-Butylbenzene	< 0.5	ug/L	A	
4-Isopropyltoluene	< 0.5	ug/L	A		1,3-Dichlorobenzene	< 0.5	ug/L	A	
1,4-Dichlorobenzene	< 0.5	ug/L	A		n-Butylbenzene	< 0.5	ug/L	A	
1,2-Dichlorobenzene	< 0.5	ug/L	A		1,2,4-Trichlorobenzene	< 0.5	ug/L	A	
Hexachlorobutadiene	< 0.5	ug/L	A		Naphthalene	< 0.5	ug/L	A	
1,2,3-Trichlorobenzene	< 0.5	ug/L	A		Surr. 1 (4-Bromofluorobenzene)	95	%	A	
Surr. 2 (1,2-Dichlorobenzene d4)	95	%	A						

CLIENT: KAS, Inc.
PROJECT: 410040082-83 E.Clarendon
REPORT DATE: 7/26/2012

WORK ORDER: **1207-10589**
DATE RECEIVED: 07/20/2012

TEST METHOD: EPA 524.2

005 Site: Whispering Pines Effluent Date Sampled: 7/19/12 11:45 Analysis Date: 7/23/12 W RBF

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Dichlorodifluoromethane	< 0.5	ug/L	A		Chloromethane	< 0.5	ug/L	A	
Vinyl chloride	< 0.5	ug/L	A		Bromomethane	< 0.5	ug/L	A	
Chloroethane	< 0.5	ug/L	A		Trichlorofluoromethane	< 0.5	ug/L	A	
1,1-Dichloroethene	< 0.5	ug/L	A		Methylene chloride	< 1.0	ug/L	A	
Methyl-t-butyl ether (MTBE)	< 0.5	ug/L	A		trans-1,2-Dichloroethene	< 0.5	ug/L	A	
1,1-Dichloroethane	< 0.5	ug/L	A		2,2-Dichloropropane	< 0.5	ug/L	A	
cis-1,2-Dichloroethene	< 0.5	ug/L	A		Bromochloromethane	< 0.5	ug/L	A	
Chloroform	4.2	ug/L	A		1,1,1-Trichloroethane	< 0.5	ug/L	A	
Carbon tetrachloride	< 0.5	ug/L	A		1,1-Dichloropropene	< 0.5	ug/L	A	
Benzene	< 0.5	ug/L	A		1,2-Dichloroethane	< 0.5	ug/L	A	
Trichloroethene	< 0.5	ug/L	A		1,2-Dichloropropane	< 0.5	ug/L	A	
Dibromomethane	< 0.5	ug/L	A		Bromodichloromethane	4.2	ug/L	A	
cis-1,3-Dichloropropene	< 0.5	ug/L	A		Toluene	< 0.5	ug/L	A	
trans-1,3-Dichloropropene	< 0.5	ug/L	A		1,1,2-Trichloroethane	< 0.5	ug/L	A	
Tetrachloroethene	< 0.5	ug/L	A		1,3-Dichloropropane	< 0.5	ug/L	A	
Dibromochloromethane	2.8	ug/L	A		Chlorobenzene	< 0.5	ug/L	A	
Ethylbenzene	< 0.5	ug/L	A		1,1,1,2-Tetrachloroethane	< 0.5	ug/L	A	
Xylenes, Total	< 1.0	ug/L	A		Styrene	< 0.5	ug/L	A	
Bromoform	0.6	ug/L	A		Isopropylbenzene	< 0.5	ug/L	A	
1,1,2,2-Tetrachloroethane	< 0.5	ug/L	A		Bromobenzene	< 0.5	ug/L	A	
n-Propylbenzene	< 0.5	ug/L	A		1,2,3-Trichloropropane	< 0.5	ug/L	A	
2-Chlorotoluene	< 0.5	ug/L	A		1,3,5-Trimethylbenzene	< 0.5	ug/L	A	
4-Chlorotoluene	< 0.5	ug/L	A		t-Butylbenzene	< 0.5	ug/L	A	
1,2,4-Trimethylbenzene	< 0.5	ug/L	A		s-Butylbenzene	< 0.5	ug/L	A	
4-Isopropyltoluene	< 0.5	ug/L	A		1,3-Dichlorobenzene	< 0.5	ug/L	A	
1,4-Dichlorobenzene	< 0.5	ug/L	A		n-Butylbenzene	< 0.5	ug/L	A	
1,2-Dichlorobenzene	< 0.5	ug/L	A		1,2,4-Trichlorobenzene	< 0.5	ug/L	A	
Hexachlorobutadiene	< 0.5	ug/L	A		Naphthalene	< 0.5	ug/L	A	
1,2,3-Trichlorobenzene	< 0.5	ug/L	A		Surr. 1 (4-Bromofluorobenzene)	98	%	A	
Surr. 2 (1,2-Dichlorobenzene d4)	95	%	A						

ENDYNE, INC.
160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

CHAIN-OF-CUSTODY-RECORD

№ 60391

Special Reporting Instructions/PO#:

Project Name: East Clarendon 410040082 / 410040083	Client/Contact Name: Lauren Morley	Sampler Name: Lauren Morley
State of Origin: VT X NY __ NH __ Other __	Phone #: 802-383-0486	Phone #: 802-383-0486
Endyne WO # 1207 10589	Mailing Address: KAS, Inc.	Billing Address: KAS, Inc.

Sample Location	Matrix	GRAB	COMP	Date/Time Sampled	Sample Containers No.	Sample Containers Type/Size	Sample Preservation	Analysis Required	FieldResults/Remarks	Due Date
MW-2	H_2O	X		11:15	2	40mL	HCl	19		
Corey Influent	↓	↓		12:08	2	↓	HCl	33		
Corey Mid	↓	↓		12:07	2	↓	HCl	33		
Corey Effluent	↓	↓		12:06	2	↓	HCl	37		
Corey Effluent Chl. check	↓	↓		12:06	1	↓	none	37		
Whispering pines Effluent	↓	↓		11:45	2	↓	Ascorbic acid HCl	37		
Whispering pines Effluent Chl. check	↓	↓		11:45	1	↓	Ascorbic acid	37		

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
Lauren Morley	7/19/12 1800	Jolene M Turner	7/20/12 1115	Eileen Cooney	7/20 12:10

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH Only
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	8081 Pest
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	8082 PCB
4	Nitrite N	9	BOD	14	Turbidity	19	VT PCF	24	8260B	29	PP13 Metals
5	Nitrate N	10	Alkalinity	15	Conductivity	20	VOC Halocarbons	25	8270 B/N or Acid	30	Total RCRA8
31	Metals (Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Tl, U, V, Zn										
32	TCLP (volatiles, semi-volatiles, metals, pesticides, herbicides)					33	Other 503.1				
34	Corrosivity	35	Ignitability	36	Reactivity	37	Other 524.2				
38	Other										

LAB USE ONLY
Delivery: Client
Temp: 3.4
Comment:

(White - Laboratory / Yellow - Client)