SDMS DocID 462039

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January 21, 2007

GeoInsight Project 2491-001

Frank Gardner
U.S. Environmental Protection Agency
One Congress Street, Suite 1100-HBR
Boston, Massachusetts 02114-2023

Wells G + H
2.6

RE: Thirty First Progress Report
Administrative Order on Consent for Removal Action
Wells G&H Superfund Site
Olympia Nominee Trust Property
60 Olympia Avenue
Woburn, Massachusetts
CERCLA Docket # 01-2004-0059

Dear Mr. Gardner:

GeoInsight, Inc. (GeoInsight) prepared this progress report to describe activities completed at 60 Olympia Avenue in Woburn, Massachusetts (the Site) during the thirty first progress report period (December 21, 2006 to January 21, 2007). This report was prepared in accordance with the June 21, 2004 United States Environmental Protection Agency (USEPA) Administrative Order on Consent for Removal Action (CERCLA Docket No. 01-2004-0059; the "Order"). The report was prepared by GeoInsight at the request of Olympia Nominee Trust, current owner of the 60 Olympia Avenue property.

Please find the attached Work Plan Implementation Schedule (the "Schedule"). The status of specific tasks is presented below.

Ground Water Sampling Events

A ground water sampling event was not performed during this monitoring period. Additional focused ground water sampling activities are proposed for early February 2007.

The ground water sampling event performed on October 30, 2006 was summarized in the 29th progress report submitted on November 21, 2006. Laboratory analytical data for the October 30, 2006 sampling event are summarized in the attached table and the laboratory analytical report for the October event is attached.

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Permanganate Monitoring

Permanganate monitoring was not performed during this monitoring period. Permanganate monitoring is anticipated to be conducted in early February 2007 and will be summarized in a subsequent progress report. Monitoring wells will be visually monitored for color using a clear PVC bailer or peristaltic pump and clear tubing.

Areas of Interest

GeoInsight submitted a Scope of Work (SOW) on November 28, 2006 to evaluate three primary areas of interest that were discussed during the September 20, 2006 on-site meeting. We are currently reviewing USEPA's comments on the SOW that were provided to us on January 2, 2007. Currently, SOW assessment activities are anticipated to begin in February 2007.

Please contact us at 978-692-1114 if you have questions or would like to discuss this project.

Sincerely,
GEOINSIGHT, INC.

Christene A. Binger
Senior Hydrogeologist/Project Manager

Michael J. Webster, P.G., L.S.P
Senior Associate

cc: Chub Whitten, Olympia Nominee Trust
David P. Rosenblatt, Esq., Burns & Levinson LLP

Attachments:
Work Plan Implemenation Schedule
Table 1 - Summary of Ground Water Analytical Data – Primary VOC's
Laboratory Analytical Reports

WORK PLAN IMPLEMENTATION SCHEDULE
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

TASK DESCRIPTION	SCHEDULE
Permits Submit permit application to Massachusetts Water Resources Authority (MWRA) to drive sheet pile and continue construction activities. MWRA Approval	Completed October 2004 October 26, 2004
Site Preparation Bridge Enhancements for Sheet Pile Crane Brush Clearing	Completed November 2004
Sheet Pile Installation	Completed January 2005
Injection Well and Trench Installation Trenching Horizontal Wells (5 days) Drilling Vertical Wells (10 days) Monitoring Well Installation Additional Injection Wells	Completed January 2005 Completed February 2005 Completed August 2005
Installation of Liquid Permanganate Delivery System Staging Area for Permanganate Storage Delivery of Permanganate (70 drums total) Delivery of Permanganate (70 drums total) Delivery of Permanganate (21 drums total)	Completed May 2005 May 11, 2005 and June 10, 2005 October 7, 2005 and October 28, 2005 December 2, 2005
Up to 20 Injection Events - Dependent on Site Monitoring (1,000 gallons of $NaMnO_4$ per event)	1st Injection: September 1, 2005 (Trench) 2nd Injection: September 15, 2005(Trench) 3rd Injection: September 29, 2005 (Wells) 4th Injection: October 13, 2005 (Trench) 5th Injection: November 3, 2005 (Wells) 6th Injection: November 10, 2005 (Trench) 7th Injection: November 22, 2005 (Wells) 8th Injection: December 20, 2005 (Wells/Trench)

WORK PLAN IMPLEMENTATION SCHEDULE
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

TASK DESCRIPTION	SCHEDULE
Ground Water Monitoring	
2005 Baseline Comprehensive Sampling Event	April 13 and 14, 2005
Focused Sampling Events	September 13, 2005 January 11, 2006 February 9, 2006 March 10, 2006
2006 Comprehensive Sampling Event	April 24, 25, and 26, 2006
Focused Sampling Events	July 19, 2006 August 31, 2006 September 28, 2006 October 30, 2006 December 14, 2006 Schedule – February 2007
Additional Assessment Activities included in November 28, 2006 Scope of Work	Schedule – February 2007

TBD = to be determined

TABLE 1
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis,1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
GROUND WATER STANDARDS			5	5	200	7	70	2	5	10,000	NA
INSIDE CONTAINMENT CELL											
OL-002	12/15/87	4-9'	41	3,100	ND	---	---	---	---	170	---
	12/15/87		33	3,400	ND	---	---	---	---	140	---
	09/16/97		8	3,700	1	---	3	<1	13	79	---
	03/20/02		<120	7,900	<600	<120	<120	<120	<120	<600	400 (J)
OL-002 (Field Dup D02290)	03/20/02		<120	8,000	<600	<120	<120	<120	<120	<600	380 (J)
	04/22/03		3	91	<1	<1	4	<1	<1	<1	---
	06/02/03		<5	330	<5	<5	17	<5	<5	<5	---
	04/14/05		<50	3,200	<50	<50	76	<100	<130	---	---
OL-2M	07/09/02	21.5-31.5'	<0.100	5	<10	<0.100	<2	<0.100	0.0911 (J)	<10	<10
	06/02/03		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/14/05		<1	<1	<1	<1	<1	<2	<1	---	---
	01/11/06		<25	1,600	<25	<25	<25	<25	<2	<25	---
	02/09/06		<250	22,000	<250	<250	<250	<250	<250	1,310	5,300
	03/10/06		<25	1,800	<25	<25	<25	<25	<25	<25	290
	04/24/06		<5	400	<5	<5	<5	<5	<5	<5	<50
OL-2M (DUP-3)	04/24/06		<5	430	<5	<5	<5	<5	<5	<5	<50
	07/19/06		1	80	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	25
	08/31/06		<1	34	<1	<1	<1	<1	<1	<1	11
	09/28/06		0.7	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	12
GEO-4	06/24/03	6-16'	<5	340	<5	<5	<5	<5	<5	<5	---
	04/14/05		<50	2,500	<50	<50	<50	<100	<50	---	---
	07/19/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
TEST-1	07/09/02	1.8-16.8'	14	12,000	<10	<2	15	2	62	150	400 (J)
TEST-1 (Field Dup D02947)	07/09/02		15	12,000	<10	<2	15	2	64	160	410 (J)
	06/02/03		3	1,300	<2.5	<2.5	130	3	5	<2.5	170
	06/24/03		<5	400	<5	<5	53	<5	<5	5	---
	04/14/05		<50	3,500	<50	<50	390	<100	<50	---	---
TEST-1 (DUP-5)	04/14/05		<50	3,600	<50	<50	400	<100	<50	---	---
OL-003	12/15/87	4-9'	45	180	ND	---	23	ND	ND	ND	---
	09/16/97		5	94	<1	---	280	95	4	300	---
	03/18/02		0.508 (J)	13	<10	<0.100	57	16	0.796 (J)	4 (J)	27 (J)
	06/02/03		0.8	2	<0.5	<0.5	11	7	<0.5	9	---
	04/13/05		<25	930	<25	<25	480	77	<25	---	---
OL-3M	07/10/02	21.5-31.5'	<0.100	0.191	<10	<0.100	<2	<0.100	<0.100	<10	<10
	06/02/03		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/13/05		<1	<1	<1	<1	<1	<2	<1	---	---
GEO-3	06/24/03	6-16'	<0.5	4	<0.5	<0.5	49	35	<0.5	65	---
MW-200S	04/14/05	6.5-9.5'	<200	14,000	<200	<200	<200	<400	<200	---	---
MW-200D	04/14/05	14-17'	<25,000	870,000	<25,000	<25,000	<25,000	<25,000	<25,000	136,000	<250,000
MW-200D (Dup)	04/14/05		<25,000	770,000	<25,000	<25,000	<25,000	<25,000	<25,000	25,000	<250,000
MW-201S	04/14/05	6.5-9.5'	<5	330	<5	<5	<5	<10	<5	---	---
MW-201D	04/14/05	14-17'	<1	11	<1	<1	<1	<2	<1	---	---
MW-202S	04/14/05	6.5-9.5'	<100	6,200	<100	<100	<100	<200	<100	---	---
MW-202D	04/14/05	14-17'	<2,000	89,000	<2,000	<2,000	<2,000	<4,000	<2,000	---	---
MW-203S	04/14/05	3-6'	<10	500	<10	<10	<10	<20	<10	---	---
MW-203D	04/14/05	14-17'	<500	42,000	<500	<500	<500	<1,000	<500	---	---
	08/31/06		<250	24,000	<250	<250	<250	<250	<250	1,640	7,200
MW-204S	04/14/05	7-10'	<50	2,400	<50	<50	280	<100	<50	---	---
MW-204S (DUP-8)	04/14/05		<50	2,200	<50	<50	250	<100	<50	---	---
MW-204D	04/14/05	14-17'	<1,000	60,000	<1,000	<1,000	<1,000	<2,000	<1,000	---	---
	04/25/06		<2,500	190,000	<2,500	<2,500	<2,500	<2,500	<2,500	3,200	<25,000
	07/19/06		<2,500	160,000	<2,500	<2,500	<2,500	<2,500	<2,500	4,800	<25,000
	08/31/06		<2,500	220,000	<2,500	<2,500	<2,500	<2,500	<2,500	6,600	<25,000
	09/28/06		<2,500	210,000	<2,500	<2,500	<2,500	<2,500	<2,500	5,400	<25,000

TABLE 1
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis,1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
GROUND WATER STANDARDS			5	5	200	7	70	2	5	10,000	NA
INSIDE CONTAINMENT CELL (continued)											
MW-205S	04/13/05	4-7'	<1	**12**	<1	<1	**4**	<2	<1	---	---
	10/30/06		<0.5	**2**	<0.5	<0.5	**8**	<0.5	**2**	<0.5	**10**
MW-205D	04/13/05	14-17'	<500	**16,000**	<500	<500	<500	<1,000	<500	---	---
	04/26/06		<1,000	**61,000**	<1,000	<1,000	<1,000	<1,000	<1,000	**2,400**	<10,000
	07/19/06		<2,500	**98,000**	<2,500	<2,500	<2,500	<2,500	<2,500	**6,800**	<25,000
	08/31/06		<2,500	**110,000**	<2,500	<2,500	<2,500	<2,500	<2,500	**8,700**	<25,000
	09/28/06		<2,500	**120,000**	<2,500	<2,500	<2,500	<2,500	<2,500	**9,000**	<25,000
	10/30/06		<1,000	**120,000 D**	<1,000	<1,000	<1,000	<1,000	<1,000	**12,200**	**21,000**
MW-206S	04/14/05	4-7'	<100	**8,200**	<100	<100	**130**	<200	<100	---	---
MW-206D	04/14/05	14-17'	<25	<25	<25	<25	**70**	<50	<25	---	---
	04/26/06		<1,000	**81,000**	<1,000	<1,000	<1,000	<1,000	<1,000	**2,800**	<10,000
	07/19/06		<1,000	**73,000**	<1,000	<1,000	<1,000	<1,000	<1,000	**5,000**	**11,000**
	08/31/06		<1,000	**78,000**	<1,000	<1,000	<1,000	<1,000	<1,000	**5,800**	**13,000**
	09/28/06		<1,000	**87,000**	<1,000	<1,000	<1,000	<1,000	<1,000	**6,300**	**13,000**
MW-207S	04/13/05	6-9'	**110**	**3,700**	<50	<50	**1,700**	**320**	<50	---	---
MW-207D	04/14/05	14-17'	<100	**7,900**	<100	<100	<100	<200	<100	---	---
MW-207D (DUP-7)	04/14/05		<100	**8,100**	<100	<100	<100	<200	<100	---	---
MW-208S	04/14/05	4-7'	<25	**1,100**	<25	<25	**1,300**	**95**	<25	---	---
MW-208D	04/14/05	14-17'	<500	**38,000**	<500	<500	<500	<500	<500	---	---
MW-209S	04/13/05	7-10'	<10	**520**	<10	<10	**1,200**	**270**	<10	---	---
MW-209D	04/13/05	14-17'	<25	**1,600**	<25	<25	<25	<50	<50	---	---
MW-210S	04/13/05	7-10'	<50	**730**	<50	<50	**3,500**	**1,100**	<50	---	---
MW-210D	04/14/05	14-17'	<25	**650**	<25	<25	**1,900**	<50	<25	---	---
MW-211S	04/14/05	6.5-9.5'	<2	**39**	<2	<2	**140**	**27**	<2	---	---
MW-211D	04/14/05	14-17'	<5	**83**	<5	<5	**150**	<10	<5	---	---
MW-212S	04/14/05	10-13'	**450**	**360**	<10	<10	**12**	<20	<10	---	---
	04/26/06		**1,200**	**2,300**	<25	<25	<25	<25	<25	<25	**340**
	08/31/06		**1,300**	**2,200**	<25	<25	**39**	<25	<25	<25	**490**
	09/28/06		**240**	**1,000**	<25	<25	**310**	<25	<25	<25	<250
	10/30/06		**1,300**	**1,900**	<25	<25	**42**	<25	<25	<25	**360**
DEEP OVERBURDEN WELLS											
GEO-1	09/21/99	90-100'	<1.5	**2.5**	<1	<1.5	<1	<2	<1.5	<1	---
	03/18/02		**0.104**	**0.244**	<10	<0.100	<2	<0.100	<0.100	<10	10 (UJ)
	09/13/05		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	01/11/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/24/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
GEO-2	09/21/99	95-105'	<1.5	**1.6**	<1	<1.5	<1	<2	<1.5	<1	---
	03/15/02		<0.100	**0.175**	<10	<0.100	<2	<0.100	<0.100	<10	<10
OUTSIDE CONTAINMENT CELL											
UPGRADIENT											
OL-005	12/15/87	3.5-8.5	ND	ND	ND	---	---	---	---	ND	---
	03/19/02		<0.100	<0.100	<10	<0.100	<2	<0.100	<0.100	<10	10 (UJ)
	06/02/03		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	04/14/05		<1	<1	<1	<1	<1	<2	<1	---	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-12	07/10/02	3.5-13.5'	<0.100	<0.100	<10	<0.100	<2	<0.100	<0.100	<10	<10
	04/14/05		<1	<1	<1	<1	<1	<2	<1	---	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-214S	04/14/05	10-13'	<1	**3**	<1	<1	<1	<2	<1	---	---
	04/25/06		<0.5	**1**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-214M	04/14/05	20-23'	<1	**3**	<1	<1	<1	<2	<1	---	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-214D	04/14/05	30-33'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5

TABLE 1
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis,1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
GROUND WATER STANDARDS			5	5	200	7	70	2	5	10,000	NA
SIDE GRADIENT EAST (Vicinity of Aberjona River)											
MW-010S	04/22/02	4-14'	<0.100	<0.100	<10	<0.100	<2	<0.100	<0.100	**10 (UJ)**	<10
	04/14/05		<1	<1	<1	<1	<1	<2	<1	---	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<5
MW-010M	04/25/02	40-50'	<0.100	**0.0779(J)**	<10	<0.100	<2	<0.100	<0.100	**10 (UJ)**	<10
	04/14/05		**2**	1	<1	<1	<1	<2	<1	---	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-010D	04/25/02	88.5-98.5'	**0.174**	**1.4**	<10	<0.100	<2	<0.100	<0.100	**10 (UJ)**	<10
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-215S	04/13/05	10-13'	**2,300**	**6,200**	<100	<100	**430**	<200	<100	---	---
	04/24/06		**2,400**	**5,400**	<100	<100	**250**	<100	<100	**430**	**13,000**
MW-215S (DUP-1)	04/24/06		**2,400**	**5,200**	<100	<100	**260**	<100	<100	**440**	**15,000**
	09/28/06		**2,900**	**5,400**	<50	<50	**290**	<50	<50	**671**	**21,000**
MW-215M	04/13/05	20-23'	<1	<1	<1	<1	<1	<2	<1	---	---
MW-215M (DUP-2)	04/13/05		<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	10/30/06		<0.5	**2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-215D	04/13/05	30-33'	<1	<1	<1	<1	<1	<2	<1	---	---
	09/13/05		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	01/11/06		<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/26/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	07/19/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-216S	04/13/05	10-13'	<500	**20,000**	<500	<500	<500	<1,000	<500	---	---
	09/13/05		**740**	**32,000**	<500	<500	<500	<500	<500	<500	**5,500**
	04/26/06		<1000	**35,000**	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<10,000
	09/28/06		<1000	**48,000**	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<10,000
MW-216M	04/13/05	20-23'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<0.5	**4**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-216D	04/13/05	30-33'	<1	<1	<1	<1	<1	<2	<1	---	---
	09/13/05		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	01/11/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/26/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	07/19/06		<0.5	**0.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
OUTSIDE CONTAINMENT CELL (continued)											
SIDE GRADIENT WEST (Adjacent to Sewer Line Easement)											
GEO-5	06/24/03	2-12'	**280**	**3,300**	<50	<50	<50	<50	<50	<50	---
GEO-6	06/24/03	11-16'	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/13/05		<1	<1	<1	<1	<1	<2	<1	---	---
	04/24/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	10/30/06		<0.5	**2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
GEO-7	06/24/03	6-16'	**2**	**8**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/13/05		<1	**4**	<1	<1	<1	<2	---	---	---
	04/24/06		<0.5	**1**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	09/28/06		<0.5	**2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-13	07/09/02	7-17'	**410**	**780**	<10	<2	**1,500**	<2	<2	**6 (J)**	**150**
	04/22/03		**650**	**280**	<10	<10	**780**	<10	<10	<10	---
	06/02/03		**430**	**250**	<25	<25	**1,300**	<25	<25	<25	---
	04/14/05		**470**	**160**	<10	<10	**340**	<20	<10	---	---
	04/26/06		**1,500**	**1,400**	<50	<50	**350**	<50	<50	<50	**3,800**
	09/28/06		**1,100**	**2,200**	<25	<25	**480**	<25	<25	<25	**1,700**
MW-212M	04/14/05	20-23'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<0.5	**3**	<0.5	<0.5	<0.5	<0.5	<0.5	**0.6**	<5
MW-212D	04/14/05	30-33'	<1	<1	<1	<1	<1	<2	<1	---	---
MW-212D (DUP-6)	04/14/05		<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-213S	04/13/05	10-13'	**240**	**70**	<5	<5	**140**	<10	<5	---	---
MW-213S (DUP-1)	04/13/05		**230**	**70**	<5	<5	**140**	<10	<5	---	---
	04/24/06		**120**	**120**	<25	<25	**47**	<25	<25	<25	**1,300**
MW-213M	04/13/05	20-23'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/24/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-213D	04/13/05	30-33'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/24/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-220M	04/14/05	20-23'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<1	<1	<1	<1	<1	<1	<1	<1	<10
MW-220D	04/13/05	30-33'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	09/28/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5

TABLE 1
SUMMARY OF GROUND WATER ANALYTICAL DATA - PRIMARY VOC's
60 OLYMPIA AVENUE
WOBURN, MASSACHUSETTS

LOCATION ID	Sampling Date	Screen Interval	PCE	TCE	1,1,1-TCA	1,1-DCE	cis,1,2-DCE	Vinyl Chloride	Chloroform	Xylenes	1,1,2-Trichloro-trifluoroethane
GROUND WATER STANDARDS			5	5	200	7	70	2	5	10,000	NA
DOWNGRADIENT											
MW-011S	04/26/02	4-14'	<0.100	**0.13**	<10	<0.100	<2	**0.264**	<0.100	**10 (UJ)**	<10
	04/14/05		**2**	**5**	<1	<1	**13**	<2	<1	---	---
	04/25/06		**3**	**8**	<0.5	<0.5	**26**	**2**	<0.5	<0.5	**43**
MW-011M	04/26/02	40-50'	**7**	**120**	<10	<2	**17**	<2	<2	**10 (UJ)**	**250**
	04/14/05		<1	**19**	<1	<1	**2**	<2	<1	---	---
	04/25/06		<0.5	**4**	<0.5	<0.5	**0.8**	<0.5	<0.5	<0.5	<5
MW-011D	04/26/02	81-91'	<0.100	<0.100	<10	<0.100	<2	<0.100	<0.100	**10 (UJ)**	<10
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-014S	07/10/02	5-15'	**25**	**180**	<10	<2	**670**	**190**	<2	<10	**31**
	04/22/03		**1**	**6**	<1	<1	**61**	**19**	<1	<10	---
	06/02/03		**2**	**15**	<1	<1	**62**	**16**	<1	<1	---
	04/13/05		**3**	**6**	<1	<1	**98**	**16**	<1	---	---
	09/28/06		**120**	**810**	<10	<10	**110**	<10	<10	<10	**110**
MW-014M	07/10/02	20-30'	<0.100	<0.100	<10	<0.100	<2	<0.100	<0.100	<10	<10
	04/13/05		<1	<1	<1	<1	<1	<2	<1	---	<1
	04/24/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	10/30/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-014D	04/13/05	37-40'	<1	<1	<1	<1	<1	<2	<1	---	<1
MW-014D (DUP4)	04/13/05		<1	<1	<1	<1	<1	<2	<1	---	<1
	04/25/06		<0.5	**0.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OUTSIDE CONTAINMENT CELL (continued)											
DOWNGRADIENT (continued)											
MW-217S	04/13/05	10-13'	<5	**190**	<5	<5	**400**	<10	<5	---	---
	04/24/06		**7**	**69**	<5	<5	**80**	<5	<5	<5	**240**
MW-217M	04/13/05	25-28'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/24/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-217D	04/13/05	37-40'	<1	<1	<1	<1	<1	<2	<1	---	---
	09/13/05		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	01/11/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/24/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	07/19/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-218S	04/13/05	10-13'	<1	**27**	<1	<1	**93**	**5**	<1	---	---
	04/25/06		<1	**1**	<1	<1	**44**	**6**	<1	<1	<10
MW-218S (DUP-2)	04/25/06		<1	**1**	<1	<1	**45**	**6**	<1	<1	<10
MW-218M	04/13/05	25-28'	<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<0.5	**4**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-218D	04/13/05	37-40'	<1	<1	<1	<1	<1	<2	<1	---	---
MW-218D (DUP-3)	04/13/05		<1	<1	<1	<1	<1	<2	<1	---	---
	04/26/06		<0.5	**1**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-219S	04/13/05	10-13'	<1	**2**	<1	<1	**33**	**5**	<1	---	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
MW-219M	04/13/05	25-28'	<1	**6**	<1	<1	**63**	**12**	<1	---	---
	04/25/06		<5	**11**	<5	<5	**210**	**12**	<5	<5	<50
MW-219D	04/13/05	37-40'	<1	<1	<1	<1	<1	<2	<1	---	---
	09/13/05		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	01/11/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	---
	04/25/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	07/19/06		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5

NOTES:
1. Values in micrograms per liter (ug/l).
2. Bold exceeds laboratory detection limits.
3. Shaded concentrations exceed applicable Ground Water Standard.
4. Ground Water Standards are ROD ICLs or MCP Method 1/GW-1 Risk Standards.
5. (J) = estimated concentration.
6. (UJ) = estimated non-detect.
7. DCE = Dichloroethene
8. DCA = Dichloroethane
9. TCE = Trichloroethene
10. TCA = Trichloroethane
11. PCE = Tetrachloroethene
12. ND = Not Detected: detection limit unknown.
13. --- = Not analyzed
14. Sodium permanganate injected between September 1, 2005 and December 20, 2005.
15. D = listed value obtained from second (diluted) analytical run.

GROUNDWATER ANALYTICAL

Groundwater Analytical, Inc.
P.O. Box 1200
228 Main Street
Buzzards Bay, MA 02532

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www.groundwateranalytical.com

November 15, 2006

Ms. Christene Binger
GeoInsight, Inc.
5 Lan Drive
Second Floor
Westford, MA 01886

LABORATORY REPORT

Project: **60 Olympia/2491**
Lab ID: **100646**
Received: **11-01-06**

Dear Christene:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Eric H. Jensen
Operations Manager

EHJ/jll
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project:	**60 Olympia/2491**	Delivery:	**GWA Courier**	Temperature:	**5.3'C**
Client:	**GeoInsight, Inc.**	Airbill:	**n/a**	Chain of Custody:	**Present**
Lab ID:	**100646**	Lab Receipt:	**11-01-06**	Custody Seal(s):	**n/a**

Lab ID	Field ID		Matrix	Sampled	Method			Notes
100646-1	MW-205D		Aqueous	10/30/06 12:30	EPA 8260B Volatile Organics with Oxygenates			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C725348	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725342	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725341	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
100646-2	MW-215M		Aqueous	10/30/06 13:10	EPA 8260B Volatile Organics with Oxygenates			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C745321	40 mL VOA Vial	Proline	BX21059	HCl	R-4683B	04-21-06	n/a	
C745320	40 mL VOA Vial	Proline	BX21059	HCl	R-4683B	04-21-06	n/a	
C745316	40 mL VOA Vial	Proline	BX21059	HCl	R-4683B	04-21-06	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
100646-3	MW-205S		Aqueous	10/30/06 13:45	EPA 8260B Volatile Organics with Oxygenates			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C725344	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725343	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725337	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
100646-4	MW-014M		Aqueous	10/30/06 15:00	EPA 8260B Volatile Organics with Oxygenates			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C725340	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725339	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725338	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
100646-5	GEO-6		Aqueous	10/30/06 15:20	EPA 8260B Volatile Organics with Oxygenates			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C725332	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725331	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	
C725325	40 mL VOA Vial	Proline	BX21098	HCl	R-4683B	04-28-06	05-10-06	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
100646-6	MW-212S		Aqueous	10/30/06 16:25	EPA 8260B Volatile Organics with Oxygenates			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C745330	40 mL VOA Vial	Proline	BX21059	HCl	R-4683B	04-21-06	n/a	
C745329	40 mL VOA Vial	Proline	BX21059	HCl	R-4683B	04-21-06	n/a	
C745328	40 mL VOA Vial	Proline	BX21059	HCl	R-4683B	04-21-06	n/a	

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

Data Certification

Project:	**60 Olympia/2491**	Lab ID:	**100646**
Client:	**GeoInsight, Inc.**	Received:	**11-01-06 18:15**

MA DEP Compendium of Analytical Methods

Project Location:	n/a	MA DEP RTN:	n/a

This Form provides certifications for the following data set:

EPA 8260B: 100646-01,-02,-03,-04,-05,-06

Sample Matrices:	Groundwater (X)	Soil/Sediment ( )	Drinking Water ( )	Other ( )	
MCP SW-846 Methods Used	8260B (X)	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9012A[2] ( )
As specified in MA DEP Compendium of Analytical Methods. (check all that apply)	8082 ( )	8021B ( )	EPH ( )	7000 S[3] ( )	Other ( )

1. List Release Tracking Number (RTN), if known.
2. SW-846 Method 9012A (Equivalent to 9014) or MA DEP Physiologically Available Cyanide (PAC) Method
3. S - SW-846 Methods 7000 Series. List individual method and analyte.

An affirmative response to questions A, B, C and D is required for "Presumptive Certainty" status.

A.	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	Yes
B.	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes
C.	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty," as described in Section 2.0 of the MA DEP document CAM VII A, *Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data* ?	Yes
D.	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	n/a

A response to questions E and F below is required for "Presumptive Certainty" status.

E.	Were all QC performance standards and recommendations for the specified methods achieved?	No
F.	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes

All No answers are addressed in the attached Project Narrative.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature:		Position:	Operations Manager
Printed Name:	Eric H. Jensen	Date:	11-15-06

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	MW-205D	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-01	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 12:30	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 15:59	Dilution Factor:	2000
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	1000
74-87-3	Chloromethane	BRL		ug/L	1000
75-01-4	Vinyl Chloride	BRL		ug/L	1000
74-83-9	Bromomethane	BRL		ug/L	1000
75-00-3	Chloroethane	BRL		ug/L	1000
75-69-4	Trichlorofluoromethane	BRL		ug/L	1000
60-29-7	Diethyl Ether	BRL		ug/L	4000
75-35-4	1,1-Dichloroethene	BRL		ug/L	1000
76-13-1	1,1,2-Trichlorotrifluoroethane	**21,000**		ug/L	10000
67-64-1	Acetone	BRL		ug/L	20000
75-15-0	Carbon Disulfide	BRL		ug/L	10000
75-09-2	Methylene Chloride	**43,000**		ug/L	5000
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	1000
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	1000
75-34-3	1,1-Dichloroethane	BRL		ug/L	1000
594-20-7	2,2-Dichloropropane	BRL		ug/L	1000
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	1000
78-93-3	2-Butanone (MEK)	BRL		ug/L	10000
74-97-5	Bromochloromethane	BRL		ug/L	1000
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	10000
67-66-3	Chloroform	BRL		ug/L	1000
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	1000
56-23-5	Carbon Tetrachloride	BRL		ug/L	1000
563-58-6	1,1-Dichloropropene	BRL		ug/L	1000
71-43-2	Benzene	BRL		ug/L	1000
107-06-2	1,2-Dichloroethane	BRL		ug/L	1000
79-01-6	Trichloroethene	**110,000**	e	ug/L	1000
78-87-5	1,2-Dichloropropane	BRL		ug/L	1000
74-95-3	Dibromomethane	BRL		ug/L	1000
75-27-4	Bromodichloromethane	BRL		ug/L	1000
123-91-1	1,4-Dioxane	BRL		ug/L	1000000
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	1000
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	10000
108-88-3	Toluene	BRL		ug/L	1000
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	1000
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	1000
127-18-4	Tetrachloroethene	BRL		ug/L	1000
142-28-9	1,3-Dichloropropane	BRL		ug/L	1000
591-78-6	2-Hexanone	BRL		ug/L	10000
124-48-1	Dibromochloromethane	BRL		ug/L	1000
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	1000
108-90-7	Chlorobenzene	BRL		ug/L	1000
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	1000
100-41-4	Ethylbenzene	**2,300**		ug/L	1000
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	**10,000**		ug/L	1000
95-47-6	*ortho*-Xylene	**2,200**		ug/L	1000

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID:	MW-205D	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-01	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 12:30	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 15:59	Dilution Factor:	2000
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	1000
75-25-2	Bromoform	BRL		ug/L	1000
98-82-8	Isopropylbenzene	BRL		ug/L	1000
108-86-1	Bromobenzene	BRL		ug/L	1000
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	1000
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	1000
103-65-1	*n*-Propylbenzene	BRL		ug/L	1000
95-49-8	2-Chlorotoluene	BRL		ug/L	1000
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	1000
106-43-4	4-Chlorotoluene	BRL		ug/L	1000
98-06-6	*tert*-Butylbenzene	BRL		ug/L	1000
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	1000
135-98-8	*sec*-Butylbenzene	BRL		ug/L	1000
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	1000
99-87-6	4-Isopropyltoluene	BRL		ug/L	1000
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	1000
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	1000
104-51-8	*n*-Butylbenzene	BRL		ug/L	1000
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	1000
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	1000
87-68-3	Hexachlorobutadiene	BRL		ug/L	1000
91-20-3	Naphthalene	BRL		ug/L	1000
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	1000
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	40000
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	1000
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	1000
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL		ug/L	1000

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**104** %	70 - 130 %
1,2-Dichloroethane-d_4	10	9.8	**98** %	70 - 130 %
Toluene-d_8	10	11	**112** %	70 - 130 %
4-Bromofluorobenzene	10	9.3	**93** %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations:
BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

e Indicates concentration exceeded calibration range for the analyte.

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	**MW-205D**	Matrix:	**Aqueous**
Project:	**60 Olympia/2491**	Container:	**40 mL VOA Vial**
Client:	**GeoInsight, Inc.**	Preservation:	**HCl/Cool**
Laboratory ID:	**100646-01RA1**	QC Batch ID:	**VM4-3696-W**
Sampled:	**10-30-06 12:30**	Instrument ID:	**MS-4 HP 6890**
Received:	**11-01-06 18:15**	Sample Volume:	**25 mL**
Analyzed:	**11-08-06 22:54**	Dilution Factor:	**5000**
Analyst:	CCT		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	2500
74-87-3	Chloromethane	BRL		ug/L	2500
75-01-4	Vinyl Chloride	BRL		ug/L	2500
74-83-9	Bromomethane	BRL		ug/L	2500
75-00-3	Chloroethane	BRL		ug/L	2500
75-69-4	Trichlorofluoromethane	BRL		ug/L	2500
60-29-7	Diethyl Ether	BRL		ug/L	10000
75-35-4	1,1-Dichloroethene	BRL		ug/L	2500
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	25000
67-64-1	Acetone	BRL		ug/L	50000
75-15-0	Carbon Disulfide	BRL		ug/L	25000
75-09-2	Methylene Chloride	BRL		ug/L	13000
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	2500
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	2500
75-34-3	1,1-Dichloroethane	BRL		ug/L	2500
594-20-7	2,2-Dichloropropane	BRL		ug/L	2500
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	2500
78-93-3	2-Butanone (MEK)	BRL		ug/L	25000
74-97-5	Bromochloromethane	BRL		ug/L	2500
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	25000
67-66-3	Chloroform	BRL		ug/L	2500
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	2500
56-23-5	Carbon Tetrachloride	BRL		ug/L	2500
563-58-6	1,1-Dichloropropene	BRL		ug/L	2500
71-43-2	Benzene	BRL		ug/L	2500
107-06-2	1,2-Dichloroethane	BRL		ug/L	2500
79-01-6	Trichloroethene	**120,000**		ug/L	2500
78-87-5	1,2-Dichloropropane	BRL		ug/L	2500
74-95-3	Dibromomethane	BRL		ug/L	2500
75-27-4	Bromodichloromethane	BRL		ug/L	2500
123-91-1	1,4-Dioxane	BRL		ug/L	2500000
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	2500
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	25000
108-88-3	Toluene	BRL		ug/L	2500
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	2500
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	2500
127-18-4	Tetrachloroethene	BRL		ug/L	2500
142-28-9	1,3-Dichloropropane	BRL		ug/L	2500
591-78-6	2-Hexanone	BRL		ug/L	25000
124-48-1	Dibromochloromethane	BRL		ug/L	2500
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	2500
108-90-7	Chlorobenzene	BRL		ug/L	2500
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	2500
100-41-4	Ethylbenzene	BRL		ug/L	2500
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	**9,700**		ug/L	2500
95-47-6	*ortho*-Xylene	BRL		ug/L	2500

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GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID:	MW-205D	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-01RA1	QC Batch ID:	VM4-3696-W
Sampled:	10-30-06 12:30	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 22:54	Dilution Factor:	5000
Analyst:	CCT		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	2500
75-25-2	Bromoform	BRL		ug/L	2500
98-82-8	Isopropylbenzene	BRL		ug/L	2500
108-86-1	Bromobenzene	BRL		ug/L	2500
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	2500
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	2500
103-65-1	*n*-Propylbenzene	BRL		ug/L	2500
95-49-8	2-Chlorotoluene	BRL		ug/L	2500
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	2500
106-43-4	4-Chlorotoluene	BRL		ug/L	2500
98-06-6	*tert*-Butylbenzene	BRL		ug/L	2500
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	2500
135-98-8	*sec*-Butylbenzene	BRL		ug/L	2500
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	2500
99-87-6	4-Isopropyltoluene	BRL		ug/L	2500
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	2500
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	2500
104-51-8	*n*-Butylbenzene	BRL		ug/L	2500
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	2500
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	2500
87-68-3	Hexachlorobutadiene	BRL		ug/L	2500
91-20-3	Naphthalene	BRL		ug/L	2500
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	2500
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	100000
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	2500
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	2500
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	2500

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**105** %	70 - 130 %
1,2-Dichloroethane-d_4	10	9.6	**96** %	70 - 130 %
Toluene-d_8	10	11	**113** %	70 - 130 %
4-Bromofluorobenzene	10	9.3	**93** %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	MW-215M	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-02	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 13:10	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 16:28	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	2		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	0.5
95-47-6	*ortho*-Xylene	BRL		ug/L	0.5

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GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID:	MW-215M	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-02	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 13:10	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 16:28	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	*n*-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	*tert*-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	*n*-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**102** %	70 - 130 %
1,2-Dichloroethane-d_4	10	11	**107** %	70 - 130 %
Toluene-d_8	10	11	**106** %	70 - 130 %
4-Bromofluorobenzene	10	9	**90** %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

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GROUNDWATER ANALYTICAL

EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	MW-205S	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-03	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 13:45	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 16:57	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	10		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	0.5		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	*cis*-1,2-Dichloroethene	8		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	2		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	2		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	0.6		ug/L	0.5
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	0.5
95-47-6	*ortho*-Xylene	BRL		ug/L	0.5

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GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID:	MW-205S	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-03	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 13:45	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 16:57	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	*n*-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	*tert*-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	**4**		ug/L	0.5
104-51-8	*n*-Butylbenzene	**0.6**		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**102** %	70 - 130 %
1,2-Dichloroethane-d_4	10	10	**100** %	70 - 130 %
Toluene-d_8	10	11	**113** %	70 - 130 %
4-Bromofluorobenzene	10	9.1	**91** %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

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GROUNDWATER ANALYTICAL

EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	MW-014M	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-04	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 15:00	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 17:26	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	0.5
95-47-6	*ortho*-Xylene	BRL		ug/L	0.5

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EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID:	MW-014M	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-04	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 15:00	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 17:26	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	*n*-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	*tert*-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	*n*-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**105** %	70 - 130 %
1,2-Dichloroethane-d_4	10	9.8	**98** %	70 - 130 %
Toluene-d_8	10	11	**111** %	70 - 130 %
4-Bromofluorobenzene	10	9.3	**93** %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

GROUNDWATER ANALYTICAL

EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	GEO-6	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-05	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 15:20	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 17:55	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	2		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	0.5
95-47-6	*ortho*-Xylene	BRL		ug/L	0.5

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GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID:	GEO-6	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-05	QC Batch ID:	VM4-3695-W
Sampled:	10-30-06 15:20	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-08-06 17:55	Dilution Factor:	1
Analyst:	KMC		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	*n*-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	*tert*-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	*n*-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	11	**107** %	70 - 130 %
1,2-Dichloroethane-d_4	10	10	**103** %	70 - 130 %
Toluene-d_8	10	9.7	**97** %	70 - 130 %
4-Bromofluorobenzene	10	9	**90** %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

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EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	MW-2125	Matrix:	Aqueous
Project:	60 Olympia/2491	Container:	40 mL VOA Vial
Client:	GeoInsight, Inc.	Preservation:	HCl/Cool
Laboratory ID:	100646-06	QC Batch ID:	VM4-3696-W
Sampled:	10-30-06 16:25	Instrument ID:	MS-4 HP 6890
Received:	11-01-06 18:15	Sample Volume:	25 mL
Analyzed:	11-09-06 00:21	Dilution Factor:	50
Analyst:	CCT		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	25
74-87-3	Chloromethane	BRL		ug/L	25
75-01-4	Vinyl Chloride	BRL		ug/L	25
74-83-9	Bromomethane	BRL		ug/L	25
75-00-3	Chloroethane	BRL		ug/L	25
75-69-4	Trichlorofluoromethane	BRL		ug/L	25
60-29-7	Diethyl Ether	BRL		ug/L	100
75-35-4	1,1-Dichloroethene	BRL		ug/L	25
76-13-1	1,1,2-Trichlorotrifluoroethane	**360**		ug/L	250
67-64-1	Acetone	BRL		ug/L	500
75-15-0	Carbon Disulfide	BRL		ug/L	250
75-09-2	Methylene Chloride	BRL		ug/L	130
156-60-5	*trans*- 1,2-Dichloroethene	BRL		ug/L	25
1634-04-4	Methyl *tert*- butyl Ether (MTBE)	BRL		ug/L	25
75-34-3	1,1-Dichloroethane	BRL		ug/L	25
594-20-7	2,2-Dichloropropane	BRL		ug/L	25
156-59-2	*cis*- 1,2-Dichloroethene	**42**		ug/L	25
78-93-3	2-Butanone (MEK)	BRL		ug/L	250
74-97-5	Bromochloromethane	BRL		ug/L	25
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	250
67-66-3	Chloroform	BRL		ug/L	25
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	25
56-23-5	Carbon Tetrachloride	BRL		ug/L	25
563-58-6	1,1-Dichloropropene	BRL		ug/L	25
71-43-2	Benzene	BRL		ug/L	25
107-06-2	1,2-Dichloroethane	BRL		ug/L	25
79-01-6	Trichloroethene	**1,900**		ug/L	25
78-87-5	1,2-Dichloropropane	BRL		ug/L	25
74-95-3	Dibromomethane	BRL		ug/L	25
75-27-4	Bromodichloromethane	BRL		ug/L	25
123-91-1	1,4-Dioxane	BRL		ug/L	25000
10061-01-5	*cis*- 1,3-Dichloropropene	BRL		ug/L	25
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	250
108-88-3	Toluene	BRL		ug/L	25
10061-02-6	*trans*- 1,3-Dichloropropene	BRL		ug/L	25
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	25
127-18-4	Tetrachloroethene	**1,300**		ug/L	25
142-28-9	1,3-Dichloropropane	BRL		ug/L	25
591-78-6	2-Hexanone	BRL		ug/L	250
124-48-1	Dibromochloromethane	BRL		ug/L	25
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	25
108-90-7	Chlorobenzene	BRL		ug/L	25
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	25
100-41-4	Ethylbenzene	BRL		ug/L	25
108-38-3/106-42-3	*meta*- Xylene and *para*- Xylene	BRL		ug/L	25
95-47-6	*ortho*- Xylene	BRL		ug/L	25

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID:	**MW-212S**	Matrix:	**Aqueous**
Project:	**60 Olympia/2491**	Container:	**40 mL VOA Vial**
Client:	**GeoInsight, Inc.**	Preservation:	**HCl/Cool**
Laboratory ID:	**100646-06**	QC Batch ID:	**VM4-3696-W**
Sampled:	**10-30-06 16:25**	Instrument ID:	**MS-4 HP 6890**
Received:	**11-01-06 18:15**	Sample Volume:	**25 mL**
Analyzed:	**11-09-06 00:21**	Dilution Factor:	**50**
Analyst:	**CCT**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	25
75-25-2	Bromoform	BRL		ug/L	25
98-82-8	Isopropylbenzene	BRL		ug/L	25
108-86-1	Bromobenzene	BRL		ug/L	25
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	25
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	25
103-65-1	*n*-Propylbenzene	BRL		ug/L	25
95-49-8	2-Chlorotoluene	BRL		ug/L	25
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	25
106-43-4	4-Chlorotoluene	BRL		ug/L	25
98-06-6	*tert*-Butylbenzene	BRL		ug/L	25
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	25
135-98-8	*sec*-Butylbenzene	BRL		ug/L	25
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	25
99-87-6	4-Isopropyltoluene	BRL		ug/L	25
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	25
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	25
104-51-8	*n*-Butylbenzene	BRL		ug/L	25
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	25
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	25
87-68-3	Hexachlorobutadiene	BRL		ug/L	25
91-20-3	Naphthalene	BRL		ug/L	25
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	25
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	1000
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	25
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	25
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	25

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**104** %	70 - 130 %
1,2-Dichloroethane-d_4	10	11	**109** %	70 - 130 %
Toluene-d_8	10	11	**113** %	70 - 130 %
4-Bromofluorobenzene	10	9.1	**91** %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

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GROUNDWATER ANALYTICAL

Project Narrative

Project:	**60 Olympia/2491**	Lab ID:	**100646**
Client:	**GeoInsight, Inc.**	Received:	**11-01-06 18:15**

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8260B Non-conformance: Samples 100646-01 through -05. Laboratory control sample (LCS) analytes Acetone, 1,4-Dioxane were above recommended recovery limits for QC batch VM4-3695.
2. EPA 8260B Note: Samples 100646-01 and -06. Samples were diluted prior to analysis. Dilution was required to keep all target analytes within calibration.
3. EPA 8260BNote: Sample 100646-01 had results that exceeded the high standard of the associated calibration curve. Results are estimated. Sample was reanalyzed and reported with all analytes within calibration.

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GROUNDWATER ANALYTICAL

228 Main Street, P.O. Box 1200
Buzzards Bay, MA 02532
Telephone (508) 759-4441 • FAX (508) 759-4475
www.groundwateranalytical.com

CHAIN-OF-CUSTODY RECORD AND WORK ORDER

№ 209521

Project Name: 100 Olympia	Firm: GeoInsight, Inc.
Project Number: 2191	Address: 5 Lan Drive Suite 200
Sampler Name: CNB, RSE	City / State / Zip: Westford, MA, 01886
Project Manager: CAB	Telephone: 978-692-1114

INSTRUCTIONS: Use separate line for each container (except replicates).

TURNAROUND

- [X] STANDARD (10 Business Days)
- [ ] PRIORITY (5 Business Days)
- [ ] RUSH (RAN- _____)
  (Rush requires Rush Authorization Number)
- [X] Please Email to: CAB.ryer@geoinc.com
- [ ] Please FAX to: _____

BILLING

- [ ] Purchase Order No.: _____
- [ ] Third Party Billing: _____
- [ ] GWA Quote: _____

ANALYSIS REQUEST

Sampling DATE	Sampling TIME	SAMPLE IDENTIFICATION	Matrix	Type	Container(s)	Preservation	LABORATORY NUMBER (Lab Use Only)
10/30	12:30	MW-205-D	GROUNDWATER	COMPOSITE	3 x 40ml VOA Vial	HCL	
10/30	13:45	MW-205-S	GROUNDWATER	COMPOSITE	3 x 40ml VOA Vial	HCL	
10/30	15:20	GEO-6	GROUNDWATER	COMPOSITE	3 x 40ml VOA Vial	HCL	

REMARKS / SPECIAL INSTRUCTIONS

MA DEP MCP Data Enhancement Affirmation

- [ ] YES [ ] NO MCP Data Certification required.
- [ ] YES [ ] NO MCP Drinking Water Sample Included.
  (Require collection of contingent duplicate sample. Trip blanks are also required, if VOA sample collected).

Signature: _____

DATA QUALITY OBJECTIVES

Regulatory Program

State	Standard	Deliverables
[ ] CT	[X] MCP GW-1/S-1	[ ] PWS Form
[ ] ME	[ ] MCP GW-2/S-2	[ ] MWRA
[X] MA	[ ] NY STARS	[ ] _____
[ ] NH	[ ] Drinking Water	
[ ] NY	[ ] Wastewater	
[ ] RI	[ ] Waste Disposal	
[ ] VT	[ ] Dredge Material	
[ ] ___	[ ] _____	

Project Specific QC

Many regulatory programs and EPA methods require project specific QC. Project specific QC includes Sample Duplicates, Matrix Spikes, and/or Matrix Spike Duplicates. Laboratory QC is not project specific unless prearranged. Project specific QC samples are charged on a per sample basis. Each MS, MSD and Sample Duplicate requires an additional sample aliquot.

Project Specific QC Required	Selection of QC Sample
[ ] Sample Duplicate	[ ] Please use sample: _____
[ ] Matrix Spike	
[ ] Matrix Spike Duplicate	

CHAIN-OF-CUSTODY RECORD

NOTE: All samples submitted subject to Standard Terms and Conditions on reverse hereof.

Relinquished by Sampler: Renée Sequin	Date 11/1/04	Time 1409	Received by: [signature]
Relinquished by: [signature]	Date 11/1/04	Time 1815	Received by: [signature]
Relinquished by:	Date	Time	Received by Laboratory:

Receipt Temperature: 5° (Ice [ ] Refrigerated 2-6°C Recommended)

Container Count: 18

Shipping/Airbill Number:

Method of Shipment: [ ] GWA Courier [ ] Express Mail [ ] Federal Express [ ] UPS [ ] Hand [ ] _____

Custody Seal Number:

5-3

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste,* US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

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GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8260B	Instrument ID:	MS-4 HP 6890	Instrument ID:	MS-4 HP 6890
QC Batch ID:	VM4-3695-WL	Analyzed:	11-08-06 10:34	Analyzed:	11-08-06 11:03
Matrix:	Aqueous	Analyst:	KMC	Analyst:	KMC
Units:	ug/L				

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
75-71-8	Dichlorodifluoromethane	10	7.7	77 %	10	7.9	79 %	3 %	70 - 130 %	25%
74-87-3	Chloromethane	10	8.6	86 %	10	8.6	86 %	0 %	70 - 130 %	25%
75-01-4	Vinyl Chloride	10	9	90 %	10	9.3	93 %	3 %	70 - 130 %	25%
74-83-9	Bromomethane	10	9.9	99 %	10	10	100 %	1 %	70 - 130 %	25%
75-00-3	Chloroethane	10	10	102 %	10	10	100 %	2 %	70 - 130 %	25%
75-69-4	Trichlorofluoromethane	10	8.1	81 %	10	8.3	83 %	3 %	70 - 130 %	25%
60-29-7	Diethyl Ether	20	19	94 %	20	19	95 %	2 %	70 - 130 %	25%
75-35-4	1,1-Dichloroethene	10	9.8	98 %	10	9.7	97 %	2 %	70 - 130 %	25%
76-13-1	1,1,2-Trichlorotrifluoroethane	20	19	95 %	20	19	96 %	1 %	70 - 130 %	25%
67-64-1	Acetone	20	33	167 % q	20	35	177 % q	6 %	70 - 130 %	25%
75-15-0	Carbon Disulfide	20	21	105 %	20	21	105 %	1 %	70 - 130 %	25%
75-09-2	Methylene Chloride	10	12	123 %	10	12	118 %	4 %	70 - 130 %	25%
156-60-5	*trans*-1,2-Dichloroethene	10	10	100 %	10	9.7	97 %	2 %	70 - 130 %	25%
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	10	9.9	99 %	10	9.7	97 %	2 %	70 - 130 %	25%
75-34-3	1,1-Dichloroethane	10	9.6	96 %	10	9.7	97 %	1 %	70 - 130 %	25%
594-20-7	2,2-Dichloropropane	10	8.8	88 %	10	8.7	87 %	1 %	70 - 130 %	25%
156-59-2	*cis*-1,2-Dichloroethene	10	11	106 %	10	10	102 %	4 %	70 - 130 %	25%
78-93-3	2-Butanone (MEK)	20	18	92 %	20	17	84 %	9 %	70 - 130 %	25%
74-97-5	Bromochloromethane	10	11	113 %	10	12	118 %	5 %	70 - 130 %	25%
109-99-9	Tetrahydrofuran (THF)	20	15	75 %	20	16	81 %	7 %	70 - 130 %	25%
67-66-3	Chloroform	10	9.5	95 %	10	9.5	95 %	1 %	70 - 130 %	25%
71-55-6	1,1,1-Trichloroethane	10	10	103 %	10	10	101 %	2 %	70 - 130 %	25%
56-23-5	Carbon Tetrachloride	10	8.8	88 %	10	9	90 %	2 %	70 - 130 %	25%
563-58-6	1,1-Dichloropropene	10	9.6	96 %	10	9.6	96 %	0 %	70 - 130 %	25%
71-43-2	Benzene	10	10	100 %	10	10	100 %	0 %	70 - 130 %	25%
107-06-2	1,2-Dichloroethane	10	9.8	98 %	10	9.5	95 %	3 %	70 - 130 %	25%
79-01-6	Trichloroethene	10	10	100 %	10	10	101 %	1 %	70 - 130 %	25%
78-87-5	1,2-Dichloropropane	10	10	100 %	10	10	100 %	0 %	70 - 130 %	25%
74-95-3	Dibromomethane	10	9.8	98 %	10	9.6	96 %	2 %	70 - 130 %	25%
75-27-4	Bromodichloromethane	10	9.4	94 %	10	9.2	92 %	2 %	70 - 130 %	25%
123-91-1	1,4-Dioxane	200	280	139 % q	200	250	127 %	9 %	70 - 130 %	25%
10061-01-5	*cis*-1,3-Dichloropropene	10	9.9	99 %	10	9.8	98 %	1 %	70 - 130 %	25%
108-10-1	4-Methyl-2-Pentanone (MIBK)	20	17	85 %	20	17	83 %	1 %	70 - 130 %	25%
108-88-3	Toluene	10	10	103 %	10	10	103 %	0 %	70 - 130 %	25%
10061-02-6	*trans*-1,3-Dichloropropene	10	10	101 %	10	9.7	97 %	3 %	70 - 130 %	25%
79-00-5	1,1,2-Trichloroethane	10	11	106 %	10	11	108 %	2 %	70 - 130 %	25%
127-18-4	Tetrachloroethene	10	12	124 %	10	13	125 %	1 %	70 - 130 %	25%
142-28-9	1,3-Dichloropropane	10	11	108 %	10	11	107 %	1 %	70 - 130 %	25%
591-78-6	2-Hexanone	20	19	93 %	20	19	96 %	3 %	70 - 130 %	25%
124-48-1	Dibromochloromethane	10	11	112 %	10	11	112 %	1 %	70 - 130 %	25%
106-93-4	1,2-Dibromoethane (EDB)	10	11	112 %	10	11	112 %	0 %	70 - 130 %	25%
108-90-7	Chlorobenzene	10	12	116 %	10	12	117 %	1 %	70 - 130 %	25%
630-20-6	1,1,1,2-Tetrachloroethane	10	12	117 %	10	12	120 %	2 %	70 - 130 %	25%
100-41-4	Ethylbenzene	10	11	112 %	10	11	111 %	1 %	70 - 130 %	25%
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	20	24	119 %	20	24	121 %	2 %	70 - 130 %	25%
95-47-6	*ortho*-Xylene	10	12	116 %	10	12	117 %	1 %	70 - 130 %	25%
100-42-5	Styrene	10	12	119 %	10	12	119 %	0 %	70 - 130 %	25%
75-25-2	Bromoform	10	12	121 %	10	11	113 %	7 %	70 - 130 %	25%
98-82-8	Isopropylbenzene	10	9.2	92 %	10	9.5	95 %	4 %	70 - 130 %	25%

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GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8260B	Instrument ID:	MS-4 HP 6890	Instrument ID:	MS-4 HP 6890
QC Batch ID:	VM4-3695-WL	Analyzed:	11-08-06 10:34	Analyzed:	11-08-06 11:03
Matrix:	Aqueous	Analyst:	KMC	Analyst:	KMC
Units:	ug/L				

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
108-86-1	Bromobenzene	10	10	103 %	10	11	105 %	2 %	70 - 130 %	25%
79-34-5	1,1,2,2-Tetrachloroethane	10	8.7	87 %	10	8.4	84 %	4 %	70 - 130 %	25%
96-18-4	1,2,3-Trichloropropane	10	9.5	95 %	10	9.7	97 %	2 %	70 - 130 %	25%
103-65-1	*n*-Propylbenzene	10	9.2	92 %	10	9.6	96 %	4 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene	10	10	103 %	10	10	103 %	0 %	70 - 130 %	25%
108-67-8	1,3,5-Trimethylbenzene	10	9.5	95 %	10	9.9	99 %	5 %	70 - 130 %	25%
106-43-4	4-Chlorotoluene	10	10	100 %	10	11	106 %	6 %	70 - 130 %	25%
98-06-6	*tert*-Butylbenzene	10	9.9	99 %	10	9.9	99 %	0 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	10	9.5	95 %	10	9.7	97 %	3 %	70 - 130 %	25%
135-98-8	*sec*-Butylbenzene	10	9.3	93 %	10	9.7	97 %	4 %	70 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	10	10	102 %	10	11	106 %	4 %	70 - 130 %	25%
99-87-6	4-Isopropyltoluene	10	9.5	95 %	10	9.9	99 %	4 %	70 - 130 %	25%
106-46-7	1,4-Dichlorobenzene	10	9.9	99 %	10	10	101 %	2 %	70 - 130 %	25%
95-50-1	1,2-Dichlorobenzene	10	9.8	98 %	10	10	105 %	6 %	70 - 130 %	25%
104-51-8	*n*-Butylbenzene	10	9.2	92 %	10	9.4	94 %	2 %	70 - 130 %	25%
96-12-8	1,2-Dibromo-3-chloropropane	10	7.8	78 %	10	7.8	78 %	1 %	70 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	10	10	103 %	10	11	110 %	6 %	70 - 130 %	25%
87-68-3	Hexachlorobutadiene	10	10	100 %	10	9.9	99 %	2 %	70 - 130 %	25%
91-20-3	Naphthalene	10	10	101 %	10	10	103 %	1 %	70 - 130 %	25%
87-61-6	1,2,3-Trichlorobenzene	10	10	103 %	10	11	105 %	2 %	70 - 130 %	25%
75-65-0	*tert*-Butyl Alcohol (TBA)	200	220	109 %	200	200	98 %	11 %	70 - 130 %	25%
108-20-3	Di-isopropyl Ether (DIPE)	10	9.4	94 %	10	9.4	94 %	1 %	70 - 130 %	25%
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	10	9.4	94 %	10	8.9	89 %	6 %	70 - 130 %	25%
994-05-8	*tert*-Amyl Methyl Ether (TAME)	10	8.4	84 %	10	8.4	84 %	0 %	70 - 130 %	25%

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	11	106 %	10	11	108 %	70 - 130 %
1,2-Dichloroethane-d_4	10	9.7	97 %	10	10	102 %	70 - 130 %
Toluene-d_8	10	11	114 %	10	11	115 %	70 - 130 %
4-Bromofluorobenzene	10	9.1	91 %	10	9.3	93 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). *Sample preparation performed by EPA Method 5030B.*

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

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GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8260B	Instrument ID:	MS-4 HP 6890
QC Batch ID:	VM4-3695-WB	Analyzed:	11-08-06 11:32
Matrix:	Aqueous	Analyst:	KMC

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	0.5
95-47-6	*ortho*-Xylene	BRL		ug/L	0.5
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8260B	Instrument ID:	MS-4 HP 6890
QC Batch ID:	VM4-3695-WB	Analyzed:	11-08-06 11:32
Matrix:	Aqueous	Analyst:	KMC

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	*n*-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	*tert*-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	*n*-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**104 %**	70 - 130 %
1,2-Dichloroethane-d_4	10	9.8	**98 %**	70 - 130 %
Toluene-d_8	10	11	**113 %**	70 - 130 %
4-Bromofluorobenzene	10	9.3	**93 %**	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8260B	Instrument ID:	MS-4 HP 6890	Instrument ID:	MS-4 HP 6890
QC Batch ID:	VM4-3696-WL	Analyzed:	11-08-06 20:26	Analyzed:	11-08-06 20:55
Matrix:	Aqueous	Analyst:	CCT	Analyst:	CCT
Units:	ug/L				

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
75-71-8	Dichlorodifluoromethane	10	8.6	86 %	10	8.7	87 %	1 %	70 - 130 %	25%
74-87-3	Chloromethane	10	8.7	87 %	10	8.5	85 %	3 %	70 - 130 %	25%
75-01-4	Vinyl Chloride	10	9.4	94 %	10	9.7	97 %	3 %	70 - 130 %	25%
74-83-9	Bromomethane	10	9.9	99 %	10	10	101 %	2 %	70 - 130 %	25%
75-00-3	Chloroethane	10	9.9	99 %	10	10	100 %	1 %	70 - 130 %	25%
75-69-4	Trichlorofluoromethane	10	8.3	83 %	10	8.8	88 %	6 %	70 - 130 %	25%
60-29-7	Diethyl Ether	20	19	94 %	20	17	87 %	7 %	70 - 130 %	25%
75-35-4	1,1-Dichloroethene	10	9.9	99 %	10	11	106 %	7 %	70 - 130 %	25%
76-13-1	1,1,2-Trichlorotrifluoroethane	20	20	101 %	20	21	103 %	2 %	70 - 130 %	25%
67-64-1	Acetone	20	19	96 %	20	18	92 %	4 %	70 - 130 %	25%
75-15-0	Carbon Disulfide	20	21	104 %	20	21	106 %	2 %	70 - 130 %	25%
75-09-2	Methylene Chloride	10	11	113 %	10	11	114 %	1 %	70 - 130 %	25%
156-60-5	*trans*-1,2-Dichloroethene	10	9.6	96 %	10	10	100 %	4 %	70 - 130 %	25%
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	10	9.8	98 %	10	9.3	93 %	5 %	70 - 130 %	25%
75-34-3	1,1-Dichloroethane	10	9.4	94 %	10	9.6	96 %	3 %	70 - 130 %	25%
594-20-7	2,2-Dichloropropane	10	8.8	88 %	10	9	90 %	3 %	70 - 130 %	25%
156-59-2	*cis*-1,2-Dichloroethene	10	10	100 %	10	10	103 %	3 %	70 - 130 %	25%
78-93-3	2-Butanone (MEK)	20	17	86 %	20	17	85 %	1 %	70 - 130 %	25%
74-97-5	Bromochloromethane	10	11	109 %	10	11	106 %	3 %	70 - 130 %	25%
109-99-9	Tetrahydrofuran (THF)	20	15	77 %	20	14	72 %	7 %	70 - 130 %	25%
67-66-3	Chloroform	10	9.3	93 %	10	9.3	93 %	0 %	70 - 130 %	25%
71-55-6	1,1,1-Trichloroethane	10	10	104 %	10	11	106 %	2 %	70 - 130 %	25%
56-23-5	Carbon Tetrachloride	10	8.9	89 %	10	9.1	91 %	2 %	70 - 130 %	25%
563-58-6	1,1-Dichloropropene	10	9.5	95 %	10	9.8	98 %	3 %	70 - 130 %	25%
71-43-2	Benzene	10	9.4	94 %	10	9.7	97 %	3 %	70 - 130 %	25%
107-06-2	1,2-Dichloroethane	10	9.4	94 %	10	9.2	92 %	3 %	70 - 130 %	25%
79-01-6	Trichloroethene	10	10	101 %	10	10	101 %	1 %	70 - 130 %	25%
78-87-5	1,2-Dichloropropane	10	9.4	94 %	10	9.6	96 %	2 %	70 - 130 %	25%
74-95-3	Dibromomethane	10	9.8	98 %	10	9.5	95 %	3 %	70 - 130 %	25%
75-27-4	Bromodichloromethane	10	9.1	91 %	10	9	90 %	1 %	70 - 130 %	25%
123-91-1	1,4-Dioxane	200	200	98 %	200	200	98 %	0 %	70 - 130 %	25%
10061-01-5	*cis*-1,3-Dichloropropene	10	9.9	99 %	10	9.4	94 %	5 %	70 - 130 %	25%
108-10-1	4-Methyl-2-Pentanone (MIBK)	20	16	81 %	20	15	76 %	7 %	70 - 130 %	25%
108-88-3	Toluene	10	9.9	99 %	10	10	102 %	3 %	70 - 130 %	25%
10061-02-6	*trans*-1,3-Dichloropropene	10	9.7	97 %	10	9.4	94 %	3 %	70 - 130 %	25%
79-00-5	1,1,2-Trichloroethane	10	11	109 %	10	10	104 %	5 %	70 - 130 %	25%
127-18-4	Tetrachloroethene	10	12	119 %	10	13	128 %	7 %	70 - 130 %	25%
142-28-9	1,3-Dichloropropane	10	10	101 %	10	10	101 %	0 %	70 - 130 %	25%
591-78-6	2-Hexanone	20	19	93 %	20	18	88 %	6 %	70 - 130 %	25%
124-48-1	Dibromochloromethane	10	10	105 %	10	10	104 %	0 %	70 - 130 %	25%
106-93-4	1,2-Dibromoethane (EDB)	10	11	105 %	10	11	109 %	3 %	70 - 130 %	25%
108-90-7	Chlorobenzene	10	11	111 %	10	11	111 %	0 %	70 - 130 %	25%
630-20-6	1,1,1,2-Tetrachloroethane	10	11	114 %	10	11	113 %	1 %	70 - 130 %	25%
100-41-4	Ethylbenzene	10	11	105 %	10	11	112 %	6 %	70 - 130 %	25%
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	20	23	114 %	20	24	118 %	3 %	70 - 130 %	25%
95-47-6	*ortho*-Xylene	10	11	109 %	10	12	117 %	6 %	70 - 130 %	25%
100-42-5	Styrene	10	11	113 %	10	12	116 %	3 %	70 - 130 %	25%
75-25-2	Bromoform	10	11	109 %	10	11	107 %	1 %	70 - 130 %	25%
98-82-8	Isopropylbenzene	10	9.3	93 %	10	10	100 %	7 %	70 - 130 %	25%

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8260B	Instrument ID:	MS-4 HP 6890	Instrument ID:	MS-4 HP 6890
QC Batch ID:	VM4-3696-WL	Analyzed:	11-08-06 20:26	Analyzed:	11-08-06 20:55
Matrix:	Aqueous	Analyst:	CCT	Analyst:	CCT
Units:	ug/L				

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
108-86-1	Bromobenzene	10	10	101 %	10	10	104 %	3 %	70 - 130 %	25%
79-34-5	1,1,2,2-Tetrachloroethane	10	8.6	86 %	10	8.4	84 %	2 %	70 - 130 %	25%
96-18-4	1,2,3-Trichloropropane	10	9.4	94 %	10	9.4	94 %	1 %	70 - 130 %	25%
103-65-1	*n*-Propylbenzene	10	9.2	92 %	10	9.8	98 %	6 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene	10	9.8	98 %	10	11	106 %	8 %	70 - 130 %	25%
108-67-8	1,3,5-Trimethylbenzene	10	9.6	96 %	10	10	100 %	5 %	70 - 130 %	25%
106-43-4	4-Chlorotoluene	10	9.9	99 %	10	10	104 %	5 %	70 - 130 %	25%
98-06-6	*tert*-Butylbenzene	10	9.8	98 %	10	10	104 %	7 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	10	9.4	94 %	10	9.9	99 %	5 %	70 - 130 %	25%
135-98-8	*sec*-Butylbenzene	10	9.3	93 %	10	9.8	98 %	6 %	70 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	10	10	102 %	10	10	104 %	2 %	70 - 130 %	25%
99-87-6	4-Isopropyltoluene	10	9.6	96 %	10	10	102 %	6 %	70 - 130 %	25%
106-46-7	1,4-Dichlorobenzene	10	9.9	99 %	10	10	101 %	2 %	70 - 130 %	25%
95-50-1	1,2-Dichlorobenzene	10	9.9	99 %	10	10	102 %	3 %	70 - 130 %	25%
104-51-8	*n*-Butylbenzene	10	9.1	91 %	10	9.7	97 %	6 %	70 - 130 %	25%
96-12-8	1,2-Dibromo-3-chloropropane	10	8	80 %	10	7.9	79 %	2 %	70 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	10	10	105 %	10	11	106 %	2 %	70 - 130 %	25%
87-68-3	Hexachlorobutadiene	10	9.5	95 %	10	10	101 %	6 %	70 - 130 %	25%
91-20-3	Naphthalene	10	10	101 %	10	9.9	99 %	2 %	70 - 130 %	25%
87-61-6	1,2,3-Trichlorobenzene	10	10	102 %	10	10	104 %	2 %	70 - 130 %	25%
75-65-0	*tert*-Butyl Alcohol (TBA)	200	160	80 %	200	170	83 %	3 %	70 - 130 %	25%
108-20-3	Di-isopropyl Ether (DIPE)	10	9.2	92 %	10	9.2	92 %	0 %	70 - 130 %	25%
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	10	9	90 %	10	8.4	84 %	7 %	70 - 130 %	25%
994-05-8	*tert*-Amyl Methyl Ether (TAME)	10	8.2	82 %	10	7.9	79 %	3 %	70 - 130 %	25%

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	102 %	10	10	103 %	70 - 130 %
1,2-Dichloroethane-d_4	10	10	100 %	10	9.7	97 %	70 - 130 %
Toluene-d_8	10	11	111 %	10	11	111 %	70 - 130 %
4-Bromofluorobenzene	10	8.9	89 %	10	9.4	94 %	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8260B	Instrument ID:	MS-4 HP 6890
QC Batch ID:	VM4-3696-WB	Analyzed:	11-08-06 21:24
Matrix:	Aqueous	Analyst:	CCT

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*- 1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl *tert*- butyl Ether (MTBE)	BRL		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	*cis*- 1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	*cis*- 1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	*trans*- 1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	*meta*- Xylene and *para*- Xylene	BRL		ug/L	0.5
95-47-6	*ortho*- Xylene	BRL		ug/L	0.5
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	**EPA Method 8260B**	Instrument ID:	**MS-4 HP 6890**
QC Batch ID:	**VM4-3696-WB**	Analyzed:	**11-08-06 21:24**
Matrix:	**Aqueous**	Analyst:	**CCT**

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	*n*-Propylbenzene	BRL		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	*tert*-Butylbenzene	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	*n*-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	10	**104 %**	70 - 130 %
1,2-Dichloroethane-d_4	10	9.5	**95 %**	70 - 130 %
Toluene-d_8	10	11	**114 %**	70 - 130 %
4-Bromofluorobenzene	10	9.2	**92 %**	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Sample preparation performed by EPA Method 5030B.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

GROUNDWATER ANALYTICAL

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil
http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA
http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA103

Categories: Drinking Water and Wastewater
http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETTS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water
http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater
http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste
http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater)
http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage
http://www.healthri.org/labs/labsCT_MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water
http://www.vermontdrinkingwater.org/wsops/labtable.PDF

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