



FUGRO CONSULTANTS, INC.

1000 Broadway, Suite 440
Oakland, California 94607
Tel: (510) 268-0461
Fax: (510) 268-0545

October 1, 2013
Project No. 04.72130070

Hensel Phelps
226 Airport Parkway, Suite 150
San Jose, California 95110

Attention: Mr. Ian Kangas

Subject: Soil Investigation Report, Washington Hospital, CC/ED Building, Fremont, California

Dear Mr. Kangas:

With this letter, Fugro Consultants, Inc. (Fugro) presents the Soil Investigation results for the Critical Care/Emergency Department (CC/ED) Building at Washington Hospital, located at 2000 Mowry Avenue in Fremont, California (Site). We understand that Hensel Phelps will construct the CC/ED Building at the Washington Hospital site. The CC/ED Building is part of a series of construction projects at the Washington Hospital complex, consisting mainly of four structures: CC/ED Building, Utility Corridor, Center for Joint Replacement (CJR), and Central Plant. The CC/ED Building will be connected to the below-grade Utility Corridor. Fugro previously conducted a geotechnical study for the proposed CC/ED Building in 2003.

Based on discussions with Hensel Phelps and our review of design plans, we understand that excavation activities will extend to depths ranging between 30 and 40 feet below ground surface (bgs). Preliminary estimates indicate that between 65,000 and 75,000 cubic yards of soil may be generated during construction of the CC/ED Building. The purpose of this investigation is to characterize soil that will be generated during construction from within the proposed footprint of the proposed CC/ED Building. Results of this investigation will be utilized by Hensel Phelps to assist in the preparation of contractor bid specifications and to help arrange reuse or disposal of soil generated during excavation.

SOIL INVESTIGATION

Field activities were conducted using standard industry practices regarding worker health and safety, sample collection and handling, and chain-of-custody documentation. Prior to commencement of fieldwork, Fugro prepared a Work Plan to obtain a drilling permit from Alameda County Water District (ACWD). Copies of the Work Plan and the ACWD permit are presented in Appendix A.

Fugro also retained Cruz Brothers, a private utility locator, to clear all proposed boring locations and notified the Underground Service Alert (USA) at least 48 hours prior to intrusive



field activities. As part of the utility locating activities, Cruz Brothers attempted to locate a piezometer (B-3) that was installed as part of Fugro's geotechnical investigation at the Site; however, Cruz Brothers was unable to locate the piezometer.

Drilling activities were conducted on September 12 and 13, 2013 under the supervision of Fugro's field personnel. Cascade Drilling, a State of California licensed drilling contractor, conducted drilling activities at each Site using direct push drilling methods. Fugro completed eight (8) borings within the footprint of the proposed CC/ED Building to depths of the proposed excavation as confirmed by Hensel Phelps and described below:

- Borings B-1 through B-3 and B-6 through B-8 were completed to a depth of 30 feet below ground surface (bgs).
- Boring B-4 was completed to a depth of 40 feet bgs.
- Boring B-5 was completed to a depth of 35 feet bgs.

Fugro's field personnel logged each boring in accordance with the Unified Soil Classification System (USCS) and screened soil samples in the field using a Photo-ionization Detector (PID) which measures the presence of organic vapor such as gasoline and solvents.

To be representative of soil that will be excavated, Fugro collected samples at regular intervals (approximately every 3 to 5 feet) from each boring to provide sufficient soil samples, both laterally and vertically, within the proposed excavation. Soil samples were collected using clear acetate liners, sealed with Teflon sheets and plastic end caps. All soil samples were stored in an ice-chilled cooler pending delivery to the chemical testing laboratory.

Upon completion, all borings were backfilled with neat cement grout in accordance with permit requirements and capped with concrete to match existing conditions. Soil cuttings were placed in Department of Transportation-approved and labeled 55-gallon drums pending chemical classification and offsite disposal.

SUBSURFACE CONDITIONS

Subsurface soil conditions in Borings B-1 through B-8 generally encountered between 4 to 6-inches of asphalt pavement underlain by interbedded layers of brown gravelly silts and clays, clayey sands, and clay to a maximum depth of 15 feet bgs. These deposits were underlain with brown dense sands and gravelly sand to the maximum depth explored of 40 feet bgs. These findings are consistent with subsurface conditions observed during Fugro's previous geotechnical investigation at the Site in 2003.

Fugro screened a total of 67 soil samples from the 8 borings in the field using a PID. Field screening detected only low PID readings, with the highest PID reading of 3.0 parts per million (ppm) recorded for Sample B-7@4'. No groundwater was encountered in any of the borings completed during this investigation. Logs of Borings for B-1 through B-8 are presented in Appendix B.

CHEMICAL TESTING PROGRAM

A total of forty-six (46) soil samples (8 near-surface samples for pesticide analysis only and 38 samples representing the bulk of soil to be excavated) were transported under chain-of-custody documentation to Advanced Technology Laboratories (ATL), a State of California-certified testing laboratory. Soil samples were analyzed for some or all of the following:

- Total Petroleum Hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, total xylenes (BTEX) using EPA Test Method 8021B/8015m (38 samples),
- Total Petroleum Hydrocarbons as diesel and motor oil (TPHd and TPHmo) using EPA Test Method 8015m with silica gel cleanup (38 samples),
- Organochlorine Pesticides using EPA Test Method 8081A (16 samples),
- 17 Title 22 Heavy Metals using EPA Test Method 6020 (38 samples), and/or
- Soluble Chromium using Waste Extraction Test (WET) and Toxicity Characteristic Leaching Procedure (TCLP) Methods with EPA Test Method 6010B, as appropriate (21 samples).

RESULTS OF CHEMICAL ANALYSES

This section summarizes the results of chemical analyses completed on soil samples obtained from within the footprint of the proposed CC/ED Building. Analytical results were compared to the Total Threshold Limit Concentration (TTLC), one of the criteria used to classify a soil as hazardous waste in the State of California, where applicable. Analytical results were also compared to San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Tier 1 Environmental Screening Levels (ESLs) and ESLs for a construction worker exposure scenario. The laboratory reports with chain-of-custody documentation are presented in Appendix C.

Analyses detected no TPHg or BTEX in any of the 38 samples analyzed. Analyses detected low concentrations of TPHd in all 38 samples, ranging from 2.8 milligrams per kilogram (mg/kg) to 25 mg/kg, well below respective Tier 1 ESLs and construction worker ESLs. TPHmo was also detected in all 38 samples analyzed at concentrations ranging from 3.2 mg/kg to 50 mg/kg, well below respective Tier 1 ESLs and construction worker ESLs. No TTLCs have been established for TPHd or TPHmo.

Analyses detected various organochlorine pesticides in 9 out of 16 samples tested including DDD (up to 25 micrograms per kilogram [$\mu\text{g}/\text{kg}$]), DDE (up to 150 $\mu\text{g}/\text{kg}$), DDT (up to 17 $\mu\text{g}/\text{kg}$), and Chlordane (88 $\mu\text{g}/\text{kg}$) which includes alpha-Chlordane (5.1 $\mu\text{g}/\text{kg}$) and gamma-Chlordane (8.9 $\mu\text{g}/\text{kg}$). Detected pesticides were all below respective TTLCs, Tier 1 ESLs, and construction worker ESLs, where established. No other pesticides were detected in the samples analyzed.

Analysis detected various metals in all 38 samples analyzed. All detected metals concentrations are below their respective TTLCs. With the exception of arsenic, all detected

metals are below their respective Tier 1 ESLs and construction worker ESLs. Fugro's investigation detected arsenic concentrations ranging from 2.2 mg/kg to 6.5 mg/kg, which is consistent with the background value of 11 mg/kg typically used to evaluate soil in the Bay Area¹. Because detected total chromium exceeded 50 mg/kg, 10 times the Soluble Threshold Limit Concentrations (STLC), additional testing was completed in 21 samples to evaluate soluble chromium concentrations. Using the WET method, analyses detected no soluble chromium in any of the 21 samples analyzed. Except for Sample B-5@1.5, analyses detected no soluble chromium using TCLP methods. Analyses detected 0.053 milligrams per liter (mg/L) of soluble chromium in Sample B-5@1.5, well below the TCLP criteria of 5.0 mg/L.

CONCLUSIONS AND RECOMMENDATIONS

Fugro's investigation included the collection and analysis of soil samples collected from eight borings (B-1 through B-8) completed within the proposed CC/ED Building footprint. Subsurface soil conditions in Borings B-1 through B-8 generally encountered up to 6-inches of asphalt underlain by interbedded layers of brown gravelly silts and clays, clayey sands, and clay to a maximum depth of 15 feet bgs. These deposits were underlain by brown dense sands and gravelly sand to the maximum depth explored. Groundwater was not encountered in any of the borings completed during this investigation and field observations detected no significant indications of contamination present in soil samples.

Analyses detected no TPHg or BTEX in any of the samples analyzed. Detected TPHd and TPHmo concentrations in all 38 samples analyzed were low with no concentrations exceeding respective Tier 1 ESL or construction worker ESL criteria. Detected organochlorine pesticides were also low with concentrations below respective TTLCs, Tier 1 ESLs and construction worker ESLs. All detected metals concentrations are below respective TTLCs, Tier 1 ESLs, construction worker ESLs, and/or are consistent with background values. No soluble chromium was detected in any of the 21 samples analyzed using the WET method. Using TCLP methods, only 0.053 mg/L of soluble chromium was detected in Sample B-5@1.5 which did not exceed TCLP criteria.

Based on these results the soil to be excavated within the footprint of the CC/ED Building is considered non-hazardous and suitable for reuse or disposal as a non-hazardous waste at an accepting Class II or III landfill. Fugro recommends forwarding this transmittal report to the selected reuse or landfill facility for their review and approval.

If staining, chemical odors, underground storage tanks (USTs), or other signs of contamination and/or contaminated material are encountered during construction, the contractor should notify Hensel Phelps and Fugro of those conditions and appropriate precautions, investigation, and/or mitigation should be implemented.

Fugro recommends that development plans should incorporate standard dust control measures during construction to reduce the nuisance exposure of soil and dust to construction

¹ Background Arsenic Concentration in San Francisco Bay Region soils. Master's Thesis "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region", dated December 2011.

workers and the general public. Additionally, the contractor should take necessary health and safety measures for the proposed soil handling work. Copies of this report should be provided to the Contractor performing construction at the Site.

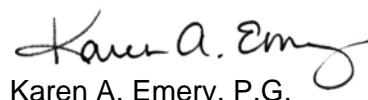
LIMITATIONS

Fugro has prepared this report in a professional manner, using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. Fugro shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. Fugro also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report. Fugro believes that conclusions stated herein to be factual, but no guarantee is made or implied. This report has been prepared for the benefit of the Hensel Phelps. The information contained in this report, including all exhibits and attachments, may not be used by any party other than the Hensel Phelps, without the express written consent of Fugro.

CLOSING STATEMENT

We believe this provides the information required at this time. Please call the undersigned at (510) 268-0461 if you have any questions.

Sincerely,
FUGRO CONSULTANTS, INC.


Karen A. Emery, P.G.
Senior Geologist




Glenn S. Young, P.G., LEED AP
Principal Geologist



KAE/GSY:afp

Attachments: Table 1
Plates 1 and 2
Appendix A - ACWD Permit
Appendix B - Logs of Borings B-1 through B-8
Appendix C - Analytical Laboratory Reports

Copies Submitted: (1 Hardcopy) Addressee

TABLE

Table 1
Summary of Analytical Results - Soil
Washington Hospital
Fremont, California



Analyte	Units	SAMPLE ID										Screening Criteria		
		B-1@0.5	B-1@1.5	B-1@4	B-1@14	B-1@28	B-2@1	B-2@2	B-2@7	B-2@20	B-2@27			
		Sample Depth feet	0.5 9/12/2013	1.5 9/12/2013	4.0 9/12/2013	14 9/12/2013	28 9/12/2013	1.0 9/12/2013	2.0 9/12/2013	7.0 9/12/2013	20 9/12/2013	27 9/12/2013	Tier 1	Construction Worker
Hydrocarbons														
TPHg	mg/kg	--	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	NE	100	1,800
TPHd	mg/kg	--	4.8	12	4.2	18	--	11	5.2	21	5.5	NE	100	900
TPHmo	mg/kg	--	7.0	20	3.7	31	--	12	5.2	47	5.2	NE	500	28,000
Volatile Organic Compounds														
Benzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	44	71,000
Toluene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	2,900	4,300,000
Ethylbenzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	3,300	490,000
Total Xylenes	µg/kg	--	<15	<15	<15	<15	--	<15	<15	<15	<15	NE	2,300	2,500,000
Organochlorine Pesticides														
DDD	µg/kg	<2.0	<2.0	--	--	--	<2.0	<2.0	--	--	--	1,000*	2,400	70,000
DDE	µg/kg	<2.0	<2.0	--	--	--	<2.0	<2.0	--	--	--	1,000*	1,700	50,000
DDT	µg/kg	3.0	<2.0	--	--	--	<2.0	<2.0	--	--	--	1,000*	1,700	50,000
alpha-Chlordane	µg/kg	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	NE	NE	NE
Chlordane	µg/kg	<8.5	<8.5	--	--	--	<8.5	<8.5	--	--	--	2,500	440	12,000
gamma-Chlordane	µg/kg	<1.0	<1.0	--	--	--	<1.0	<1.0	--	--	--	NE	NE	NE
Remaining Pesticides	µg/kg	ND	ND	--	--	--	ND	ND	--	--	--	varies	varies	varies
Metals														
Antimony	mg/kg	--	<2.0	<2.0	<2.0	<2.0	--	<2.0	<2.0	<2.0	<2.0	500	20	120
Arsenic	mg/kg	--	6.1	6.2	3.9	4.3	--	6.1	5.7	3.3	5.4	500	0.39/11**	10
Barium	mg/kg	--	180	150	97	79	--	180	110	53	76	10,000	750	61,000
Beryllium	mg/kg	--	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	75	4.0	180
Cadmium	mg/kg	--	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	100	12	110
Chromium	mg/kg	--	55	58	43	56	--	58	49	39	40	2,500#	750#	460,000†
Soluble Chromium (WET)	mg/L	--	<1.0	<1.0	--	<1.0	--	<1.0	--	--	--	5.0 (STLC)	NE	NE
Soluble Chromium (TCLP)	mg/L	--	<0.050	<0.050	--	<0.050	--	<0.050	--	--	--	5.0 (TCLP)	NE	NE
Cobalt	mg/kg	--	11	11	6.6	6.2	--	11	10	5.1	8.1	8,000	23	49
Copper	mg/kg	--	26	27	18	20	--	27	23	14	18	2,500	230	12,000
Lead	mg/kg	--	6.7	6.8	4.6	4.1	--	6.8	5.8	3.4	4.9	1,000	80	320
Mercury	mg/kg	--	<0.10	<0.10	<0.10	<0.10	--	<0.10	<0.10	<0.10	<0.10	20	6.7	27
Molybdenum	mg/kg	--	<1.0	<1.0	<1.0	<1.0	--	2.6	--	0.99	<1.0	3,500	40	1,500
Nickel	mg/kg	--	69	72	53	48	--	71	67	37	49	2,000	150	6,100
Selenium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	--	<0.99	--	1.1	1.0	<1.0	100	10
Silver	mg/kg	--	<1.0	<1.0	<1.0	<1.0	--	<0.99	<1.0	<0.99	<1.0	500	20	1,500
Thallium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	--	<0.99	<1.0	<0.99	<1.0	700	0.78	3.1
Vanadium	mg/kg	--	31	31	25	22	--	32	26	17	25	2,400	200	1,500
Zinc	mg/kg	--	44	44	38	42	--	43	41	32	38	5,000	600	93,000

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

TPHmo = Total Petroleum Hydrocarbons as motor oil

mg/kg = Milligrams per kilogram

µg/kg = Micrograms per kilogram

mg/L = Milligrams per liter

< = Not detected at or above laboratory detection limit

ND = Not Detected

-- = Not Analyzed

NE = Not Established

† = Assumes Chromium III

= Total Chromium

* = Cumulative TTLC threshold of 1,000 µg/kg for DDD, DDE, and DDT

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

TCLP = Toxicity Characteristic Leaching Procedure

ESL = Environmental Screening Levels, RWQCB Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater --

Revised May 2013. Table K-3: ESL for Direct Exposure Soil Screening Levels Construction/Trench Worker Exposure Scenario

** Background Arsenic Concentration in San Francisco Bay Region soils. Master's Thesis "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region", dated December 2011.

http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/2011_Arsenic_Background_Duverge.pdf

Exceeds 10x STLC

Analyte	Units	SAMPLE ID												Screening Criteria				
		B-3@0.5	B-3@1.5	B-3@4	B-3@9	B-3@19	B-3@29	B-4@1	B-4@2	B-4@7	B-4@12	B-4@22	B-4@32	B-4@39	TTLC	ESLs		
Sample Depth	feet	0.5	1.5	4.0	9.0	19	29	1.0	2.0	7.0	12	22	32	39		Tier 1	Construction Worker	
Hydrocarbons																		
TPHg	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NE	100	1,800	
TPHd	mg/kg	--	12	2.8	5.6	5.0	4.4	--	11	9.3	11	5.5	8.3	16	NE	100	900	
TPHmo	mg/kg	--	11	3.2	5.5	5.1	4.8	--	13	8.1	10	5.2	9.3	15	NE	500	28,000	
Volatile Organic Compounds																		
Benzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NE	44	71,000	
Toluene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NE	2,900	4,300,000	
Ethylbenzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NE	3,300	490,000	
Total Xylenes	µg/kg	--	<15	<15	<15	<15	<15	--	<15	<15	<15	<15	<15	<15	NE	2,300	2,500,000	
Organochlorine Pesticides																		
DDD	µg/kg	5.8	<2.0	--	--	--	--	<2.0	<2.0	--	--	--	--	--	1,000*	2,400	70,000	
DDE	µg/kg	25	5.1	--	--	--	--	19	2.9	--	--	--	--	--	1,000*	1,700	50,000	
DDT	µg/kg	2.6	<2.0	--	--	--	--	<2.0	17	--	--	--	--	--	1,000*	1,700	50,000	
alpha-Chlordane	µg/kg	<1.0	<1.0	--	--	--	--	<1.0	<1.0	--	--	--	--	--	NE	NE	NE	
Chlordane	µg/kg	<8.5	<8.5	--	--	--	--	<8.5	<8.5	--	--	--	--	--	2,500	440	12,000	
gamma-Chlordane	µg/kg	<1.0	<1.0	--	--	--	--	<1.0	<1.0	--	--	--	--	--	NE	NE	NE	
Remaining Pesticides	µg/kg	ND	ND	--	--	--	--	ND	ND	--	--	--	--	--	varies	varies	varies	
Metals																		
Antimony	mg/kg	--	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	500	20	120	
Arsenic	mg/kg	--	6.5	6.3	5.5	4.2	3.5	--	6.1	5.5	4.5	3.8	4.5	6.1	500	0.39/11**	10	
Barium	mg/kg	--	170	230	110	78	110	--	150	120	120	54	59	67	10,000	750	61,000	
Beryllium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	75	4.0	180	
Cadmium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100	12	110	
Chromium	mg/kg	--	60	61	56	43	35	--	54	52	40	50	67	29	2,500#	750#	460,000+	
Soluble Chromium (WET)	mg/L	--	<1.0	<1.0	<1.0	--	--	--	<1.0	<1.0	--	<1.0	<1.0	<1.0	--	5.0 (STLC)	NE	NE
Soluble Chromium (TCLP)	mg/L	--	<0.050	<0.050	<0.050	--	--	--	<0.050	<0.050	--	<0.050	<0.050	<0.050	--	5.0 (TCLP)	NE	NE
Cobalt	mg/kg	--	12	12	10	7.5	6.7	--	11	10	8.2	6.2	9.7	4.9	8,000	23	49	
Copper	mg/kg	--	28	28	23	16	19	--	26	22	22	15	19	15	2,500	230	12,000	
Lead	mg/kg	--	7.4	7.0	5.8	4.0	3.7	--	6.7	5.8	4.8	3.7	4.0	4.6	1,000	80	320	
Mercury	mg/kg	--	<0.10	<0.10	<0.10	<0.10	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	20	6.7	27	
Molybdenum	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3,500	40	1,500	
Nickel	mg/kg	--	76	75	74	56	54	--	70	70	53	47	96	33	2,000	150	6,100	
Selenium	mg/kg	--	1.0	1.1	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	100	10	1,500	
Silver	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	500	20	1,500	
Thallium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	700	0.78	3.1	
Vanadium	mg/kg	--	33	32	27	23	19	--	30	27	22	20	23	33	2,400	200	1,500	
Zinc	mg/kg	--	48	46	44	36	32	--	43	43	36	31	35	40	5,000	600	93,000	

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

TPHmo = Total Petroleum Hydrocarbons as motor oil

mg/kg = Milligrams per kilogram

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+ = Assumes Chromium III

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* = Cumulative TTLC threshold of 1,000 µg/kg for DDD, DDE, and DDT

TTLC = Total Threshold Limit Concentration

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http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/2011_Arsenic_Background_Duverge.pdf

Exceeds 10x STLC

Table 1
Summary of Analytical Results - Soil
Washington Hospital
Fremont, California



Analyte	Units	SAMPLE ID										Screening Criteria			
		B-5@0.5	B-5@1.5	B-5@4	B-5@14	B-5@24	B-5@34	B-6@1	B-6@2	B-6@7	B-6@16-20	B-6@27	TTL	ESLs	
Sample Depth	feet	0.5	1.5	4.0	14	24	34	1.0	2.0	7.0	16-20	27		Tier 1	Construction Worker
Hydrocarbons															
TPHg	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	NE	100	1,800
TPHd	mg/kg	--	8.9	4.7	3.4	5.0	3.9	--	7.3	5.5	25	5.2	NE	100	900
TPHmo	mg/kg	--	12	4.1	3.6	5.5	4.3	--	18	5.1	50	5.0	NE	500	28,000
Volatile Organic Compounds															
Benzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	44	71,000
Toluene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	2,900	4,300,000
Ethylbenzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	3,300	490,000
Total Xylenes	µg/kg	--	<15	<15	<15	<15	<15	--	<15	<15	<15	<15	NE	2,300	2,500,000
Organochlorine Pesticides															
DDD	µg/kg	<2.0	<2.0	--	--	--	--	<2.0	25	--	--	--	1,000*	2,400	70,000
DDE	µg/kg	13	6.2	--	--	--	--	<2.0	150	--	--	--	1,000*	1,700	50,000
DDT	µg/kg	<2.0	<2.0	--	--	--	--	<2.0	2.3	--	--	--	1,000*	1,700	50,000
alpha-Chlordane	µg/kg	5.1	<1.0	--	--	--	--	<1.0	<1.0	--	--	--	NE	NE	NE
Chlordane	µg/kg	88	<8.5	--	--	--	--	<8.5	<8.5	--	--	--	2,500	440	12,000
gamma-Chlordane	µg/kg	8.9	<1.0	--	--	--	--	<1.0	<1.0	--	--	--	NE	NE	NE
Remaining Pesticides	µg/kg	ND	ND	--	--	--	--	ND	ND	--	--	--	varies	varies	varies
Metals															
Antimony	mg/kg	--	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	<2.0	<2.0	<2.0	500	20	120
Arsenic	mg/kg	--	6.1	5.8	4.8	2.2	4.7	--	6.2	6.4	3.2	4.2	500	0.39/11**	10
Barium	mg/kg	--	180	110	79	51	52	--	130	110	70	58	10,000	750	61,000
Beryllium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	75	4.0	180
Cadmium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	100	12	110
Chromium	mg/kg	--	55	49	52	17	24	--	54	54	34	75	2,500#	750#	460,000†
Soluble Chromium (WET)	mg/L	--	<1.0	--	<1.0	--	--	--	<1.0	<1.0	--	<1.0	5.0 (STLC)	NE	NE
Soluble Chromium (TCLP)	mg/L	--	0.053	--	<0.050	--	--	--	<0.050	<0.050	--	<0.050	5.0 (TCLP)	NE	NE
Cobalt	mg/kg	--	11	10	7.9	4.6	5.8	--	12	11	5.3	7.3	8,000	23	49
Copper	mg/kg	--	26	23	16	14	18	--	30	26	15	19	2,500	230	12,000
Lead	mg/kg	--	7.1	6.1	4.3	2.7	3.7	--	12	6.6	3.6	4.9	1,000	80	320
Mercury	mg/kg	--	<0.10	<0.10	<0.10	<0.10	<0.10	--	<0.10	<0.10	<0.10	<0.10	20	6.7	27
Molybdenum	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	3,500	40	1,500
Nickel	mg/kg	--	69	67	56	29	43	--	63	70	39	61	2,000	150	6,100
Selenium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	100	10	1,500
Silver	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	500	20	1,500
Thallium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	700	0.78	3.1
Vanadium	mg/kg	--	31	27	25	14	21	--	42	31	20	23	2,400	200	1,500
Zinc	mg/kg	--	44	41	37	24	31	--	52	45	31	37	5,000	600	93,000

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

TPHmo = Total Petroleum Hydrocarbons as motor oil

mg/kg = Milligrams per kilogram

µg/kg = Micrograms per kilogram

mg/L = Milligrams per liter

< = Not detected at or above laboratory detection limit

ND = Not Detected

-- = Not Analyzed

NE = Not Established

† = Assumes Chromium III

= Total Chromium

* = Cumulative TTL threshold of 1,000 µg/kg for DDD, DDE, and DDT

TTL = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

TCLP = Toxicity Characteristic Leaching Procedure

ESL = Environmental Screening Levels, RWQCB Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater --

Revised May 2013. Table K-3: ESL for Direct Exposure Soil Screening Levels Construction/Trench Worker Exposure Scenario

** Background Arsenic Concentration in San Francisco Bay Region soils. Master's Thesis "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region", dated December 2011.

http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/2011_Arsenic_Background_Duverge.pdf

Exceeds 10x STLC

Table 1
Summary of Analytical Results - Soil
Washington Hospital
Fremont, California



Analyte	Units	SAMPLE ID												Screening Criteria			
		B-7@0.5	B-7@1.5	B-7@4	B-7@9	B-7@19	B-7@24	B-7@29	B-8@1	B-8@2	B-8@7	B-8@12	B-8@22	TTLC	ESLs		
	Sample Depth	feet	0.5	1.5	4.0	9.0	19	24	29	1.0	2.0	7.0	12	22	Tier 1	Construction Worker	
Hydrocarbons																	
TPHg	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0	<1.0	NE	100	1,800	
TPHd	mg/kg	--	8.3	3.8	5.5	3.9	4.5	5.1	--	4.5	3.5	7.4	4.6	NE	100	900	
TPHmo	mg/kg	--	7.1	3.8	5.0	3.9	4.3	6.1	--	4.7	3.3	6.7	4.9	NE	500	28,000	
Volatile Organic Compounds																	
Benzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	44	71,000	
Toluene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	2,900	4,300,000	
Ethylbenzene	µg/kg	--	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	<5.0	<5.0	<5.0	NE	3,300	490,000	
Total Xylenes	µg/kg	--	<15	<15	<15	<15	<15	<15	--	<15	<15	<15	<15	NE	2,300	2,500,000	
Organochlorine Pesticides																	
DDD	µg/kg	<2.0	<2.0	--	--	--	--	--	<2.0	<2.0	--	--	--	1,000*	2,400	70,000	
DDE	µg/kg	<2.0	<2.0	--	--	--	--	--	15	<2.0	--	--	--	1,000*	1,700	50,000	
DDT	µg/kg	<2.0	<2.0	--	--	--	--	--	12	<2.0	--	--	--	1,000*	1,700	50,000	
alpha-Chlordane	µg/kg	<1.0	<1.0	--	--	--	--	--	<1.0	<1.0	--	--	--	NE	NE	NE	
Chlordane	µg/kg	<8.5	<8.5	--	--	--	--	--	<8.5	<8.5	--	--	--	2,500	440	12,000	
gamma-Chlordane	µg/kg	<1.0	<1.0	--	--	--	--	--	<1.0	<1.0	--	--	--	NE	NE	NE	
Remaining Pesticides	µg/kg	ND	ND	--	--	--	--	--	ND	ND	--	--	--	varies	varies	varies	
Metals																	
Antimony	mg/kg	--	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	<2.0	<2.0	<2.0	<2.0	500	20	120	
Arsenic	mg/kg	--	6.4	6.0	5.9	3.5	4.3	4.5	--	6.2	6.1	5.4	4.6	500	0.39/11**	10	
Barium	mg/kg	--	160	190	95	92	67	56	--	170	150	110	94	10,000	750	61,000	
Beryllium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	75	4.0	180
Cadmium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	100	12	110
Chromium	mg/kg	--	59	55	49	40	37	41	--	57	58	53	42	2,500#	750#	460,000†	
Soluble Chromium (WET)	mg/L	--	<1.0	<1.0	--	--	--	--	--	<1.0	<1.0	<1.0	<1.0	5.0 (STLC)	NE	NE	
Soluble Chromium (TCLP)	mg/L	--	<0.050	<0.050	--	--	--	--	--	<0.050	<0.050	<0.050	<0.050	5.0 (TCLP)	NE	NE	
Cobalt	mg/kg	--	12	11	9.7	4.3	6.4	7.2	--	12	12	9.3	6.3	8,000	23	49	
Copper	mg/kg	--	27	25	22	12	15	19	--	28	27	20	18	2,500	230	12,000	
Lead	mg/kg	--	7.1	6.8	5.7	2.1	4.3	4.5	--	7.1	6.8	5.3	4.5	1,000	80	320	
Mercury	mg/kg	--	<0.10	0.29	<0.10	<0.10	<0.10	<0.10	--	<0.10	<0.10	<0.10	<0.10	<0.10	20	6.7	27
Molybdenum	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	3,500	40	1,500
Nickel	mg/kg	--	75	69	64	32	52	59	--	74	77	68	48	2,000	150	6,100	
Selenium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	100	10	1,500
Silver	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	500	20	1,500
Thallium	mg/kg	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.99	--	<0.99	<1.0	<1.0	<1.0	700	0.78	3.1
Vanadium	mg/kg	--	32	30	27	41	19	20	--	31	30	26	22	2,400	200	1,500	
Zinc	mg/kg	--	44	41	42	28	29	34	--	45	47	42	35	5,000	600	93,000	

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

TPHmo = Total Petroleum Hydrocarbons as motor oil

mg/kg = Milligrams per kilogram

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† = Assumes Chromium III

= Total Chromium

* = Cumulative TTLC threshold of 1,000 µg/kg for DDD, DDE, and DDT

TTLC = Total Threshold Limit Concentration

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TCLP = Toxicity Characteristic Leaching Procedure

ESL = Environmental Screening Levels, RWQCB Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater --

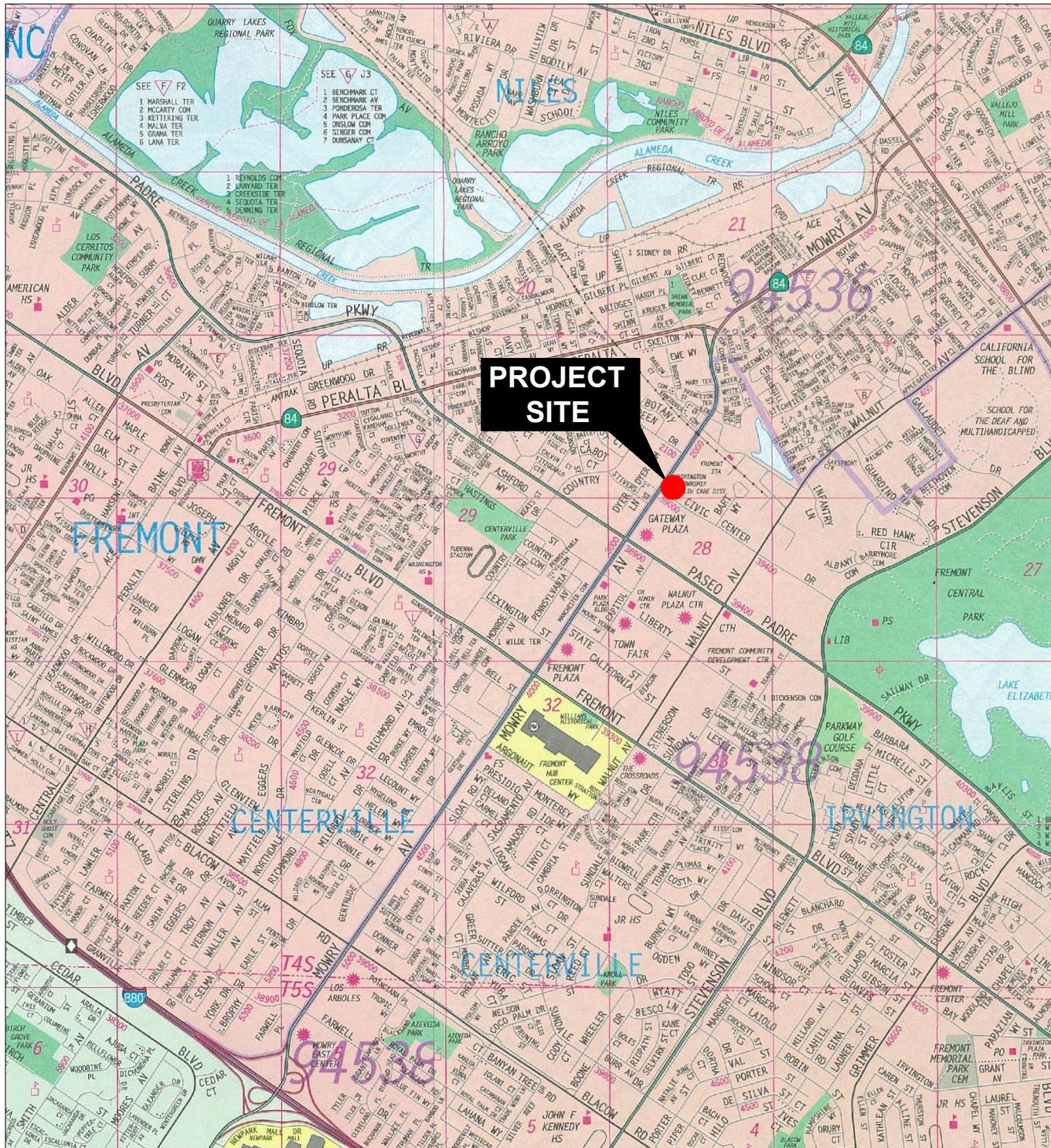
Revised May 2013. Table K-3: ESL for Direct Exposure Soil Screening Levels Construction/Trench Worker Exposure Scenario

** Background Arsenic Concentration in San Francisco Bay Region soils. Master's Thesis "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region", dated December 2011.

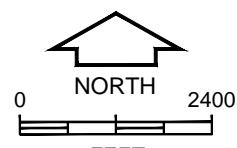
http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/2011_Arsenic_Background_Duverge.pdf

Exceeds 10x STLC

PLATES

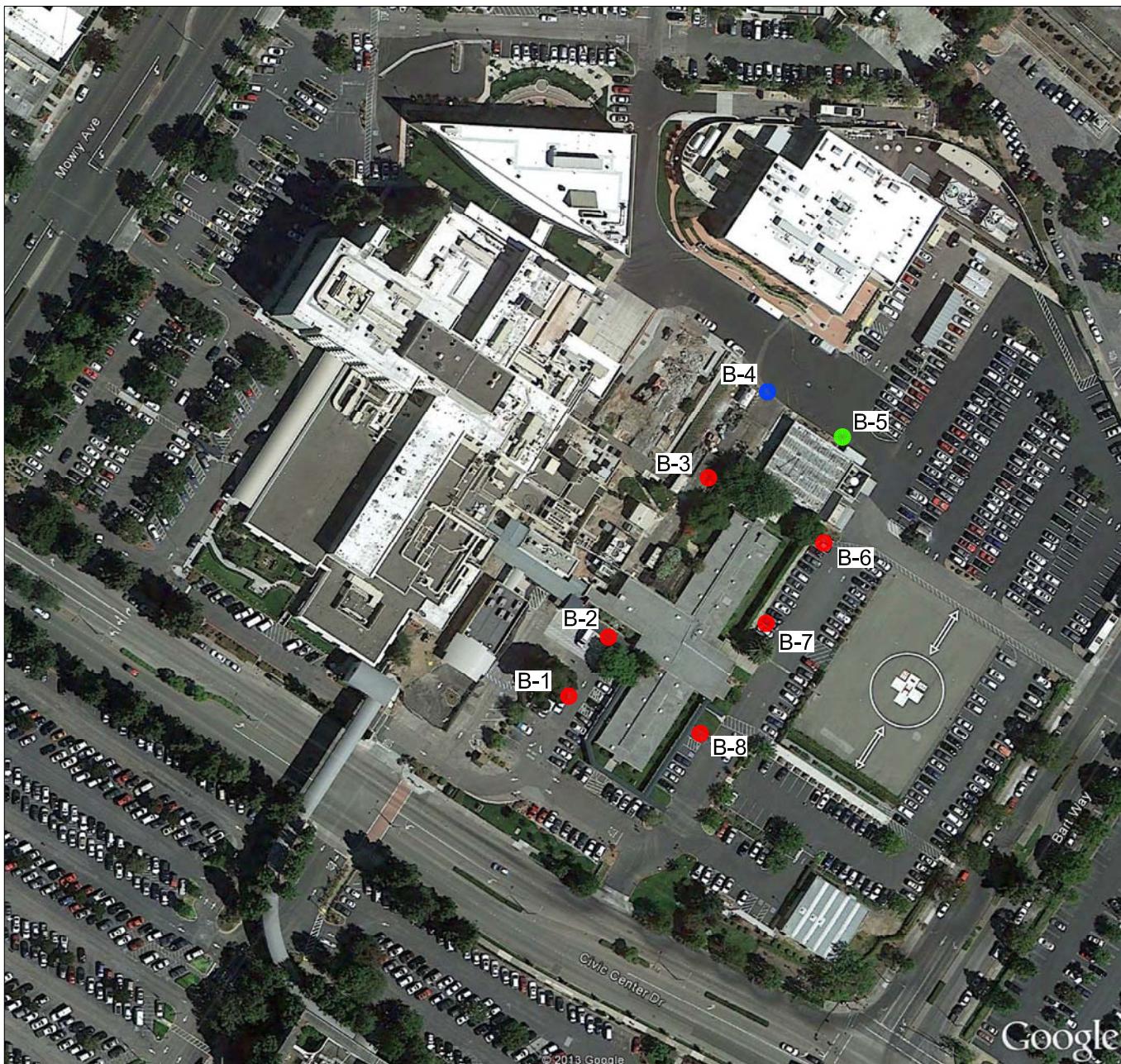


BASE MAP SOURCE: Thomas Guide 2001, Alameda & Contra Costa Counties (p. 752 & 753).



VICINITY MAP
Washington Hospital
Fremont, California

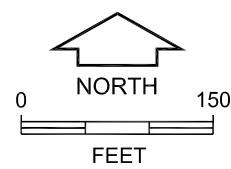
PLATE 1



BASE MAP SOURCE: Aerial photograph provided by Google Earth Pro, 2013.

LEGEND

- B-8 Approximate Location of Boring to depth of 30 ft bgs
- B-5 Approximate Location of Boring to depth of 35 ft bgs
- B-4 Approximate Location of Boring to depth of 40 ft bgs



SITE PLAN
Washington Hospital
Fremont, California

**APPENDIX A
ACWD PERMIT**



FUGRO CONSULTANTS, INC.

August 22, 2013
Project No. 04.72139106

1000 Broadway, Suite 440
Oakland, California 94607
Tel: (510) 268-0461
Fax: (510) 268-0545

Alameda County Water District
43885 South Grimmer Boulevard
Fremont, California 94537-5110

Subject: Work Plan for Soil Investigation, Washington Hospital, CC/ED Building Project,
Fremont, California

Fugro Consultants, Inc. (Fugro) has prepared this Work Plan to conduct a soil investigation within portions of the paved parking lot at Washington Hospital, located at 2000 Mowry Avenue, in Fremont, California (Site as shown on Plate 1). Fugro will complete this investigation at the request of Hensel Phelps, working on behalf of Washington Hospital.

Hensel Phelps plans to construct a Critical Care/Emergency Department (CC/ED) Building at the Washington Hospital site. Based on our review of design plans, preliminary estimates indicate that up to 75,000 cubic yards of soil may be generated during construction of the CC/ED Building. The purpose of this soil investigation is to characterize soil that may be generated during construction for offsite disposal.

WORK PLAN - SOIL INVESTIGATION

Fugro's investigation will be conducted using standard industry practices regarding worker health and safety (site-specific HSP and tailgate meetings), sample collection and handling, chemical testing, and reporting. Fugro has tentatively scheduled the work described herein to begin on September 12, 2013, subject to procurement of the drilling permit from Alameda County Water District (ACWD). A Drilling Permit Application and Site Hazard Information Form for this proposed work are attached for your review.

Prior to conducting any intrusive fieldwork, Fugro will notify ACWD and Underground Service Alert (USA) a minimum of two days prior to drilling any borings. Cascade Drilling, a licensed C-57 drilling subcontractor, (C-57 #938110) will be retained to advance eight borings at the locations shown on the attached Site Plan (Plate 2). Borings will be advanced using direct-push drilling methodologies to depths ranging from 30 to 40 feet below ground surface (bgs) as summarized on Plate 2.

In general, continuous soil cores will be retained from each boring. Discrete samples will be collected at regular intervals (every 3 to 5 feet) from each boring to provide sufficient soil samples, both laterally and vertically within the proposed excavation, to be representative of soil to be excavated and disposed offsite. Soil samples will be collected using clear liners, sealed with Teflon sheets and plastic end caps, and stored in an ice-chilled chest pending delivery to the chemical testing laboratory. All drill rods and sampling equipment will be cleaned prior to



their initial use and prior to each subsequent use to reduce the likelihood of cross-contamination between boring locations.

Fugro field personnel will screen soil samples in the field using a Photoionization Detector (PID) and log each boring in accordance with the Unified Soil Classification System (USCS). The PID will be used to qualitatively measure the presence of organic vapors such as hydrocarbons or solvents in soil. At regular intervals, samples will be collected and placed into sealable plastic bags to facilitate making PID measurements. The bags will be labeled with the corresponding boring and sample depth, as appropriate, and allowed to volatilize for up to 5 minutes. After 5 minutes, the PID probe will be inserted into the sealable bag and a reading of volatiles in the headspace will be obtained. The reading in parts per million (ppm) will be noted on the boring log along with any other field observations regarding soil consistency and the possible presence of contaminants.

Previous geotechnical studies completed by Fugro at the Site encountered groundwater at a depth of approximately 52 feet bgs (Elevation +12 feet). Based on information provided by Hensel Phelps, we understand that excavation for the CC/ED Building will reach depths of about 40 feet bgs (Elevation +23 feet), as a result we do not expect to encounter groundwater during this investigation.

Upon completion of soil sampling, all borings will be backfilled with neat cement grout in accordance with ACWDs *Standards for the Construction, Use, Operation, Maintenance, Repair, Inactivation, or Destruction of Wells, Exploratory Holes, Other Excavations, and Appurtenances*, dated December 2010, as discussed below.

- Sealing material shall be composed on one sack of Portland Type I/II Cement (94 lbs) to six gallons of clean water.
- The sealing material will be placed in one continuous operation by means of a tremie pipe lowered to within three (3) feet of the bottom of the borehole. The end of the tremie pipe shall remain in place in the sealing material until placement is complete.

After the bore holes have been backfilled with neat cement grout, the surface area will be restored to match existing conditions.

All investigation-derived waste, which includes soil cuttings and decontamination water will be drummed in DOT-approved 55 gallon drums, which will be labeled, and stored temporarily stored onsite pending offsite disposal.

CHEMICAL TESTING

Soil samples will be submitted to a State-certified testing laboratory for some or all of the following analyses:

- Total petroleum hydrocarbons as gasoline (TPHg); and benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8015,

- Total petroleum hydrocarbons as diesel (TPHd) and motor oil (TPHmo) using EPA Method 8015m/8021b with silica-gel cleanup;
- Organochlorine Pesticides using EPA Method 8081; and/or
- 17 Title 22 Metals using EPA Method 6101/7000 series.

Based on our experience with similar projects and subject to the results of analyses, additional testing may be recommended to evaluate soluble metal concentrations, including:

- Soluble chromium, nickel, and lead using Waste Extraction Test methods (WET) and Toxicity Characteristic Leaching Procedure methods (TCLP) using EPA Method 6010

REPORTING

As required by the conditions of the ACWD drilling permit, Fugro will furnish ACWD with a copy of the analytical laboratory reports with chain-of-custody documentation within 30 days of completion of the scope of work described herein.

CLOSING STATEMENT

Fugro respectfully requests ACWD approval of this Work Plan and Drilling Permit Application. Fugro has tentatively scheduled drilling for September 12 and 13, 2013 subject to obtaining the ACWD Drilling Permit. If you should have any questions or comments, please feel free to contact the undersigned at (510) 268-0461.

Sincerely,
FUGRO CONSULTANTS, INC.

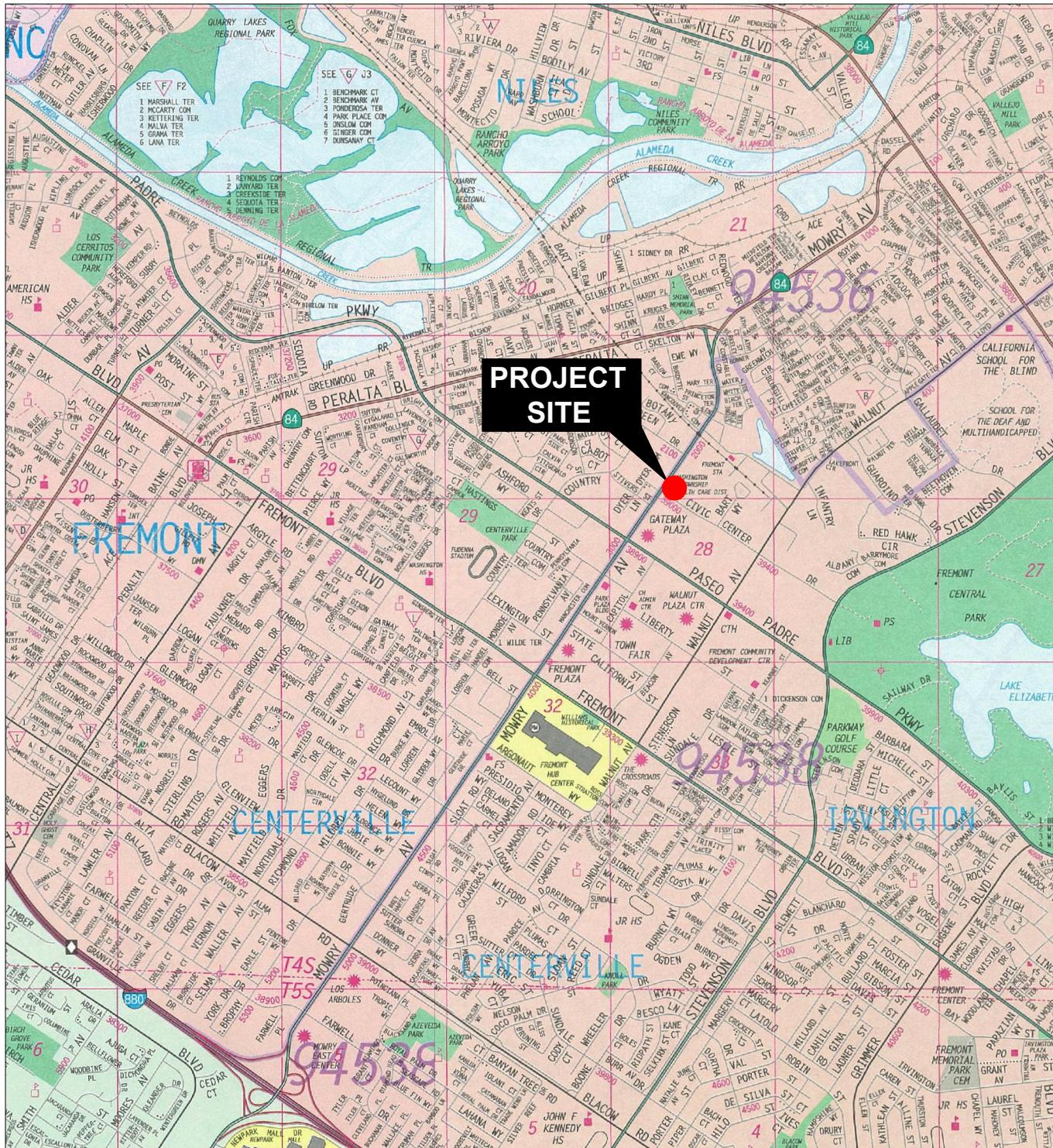
Karen A. Emery, P.G.
Senior Geologist

KAE:ke

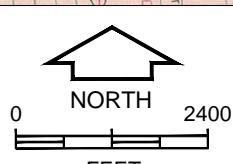
Attachments: Plate 1 – Site Location Map
Plate 2 – Site Plan
Application for Drilling Permit
Site Hazard Information
Check for Drilling Permit Application Fee - \$710.00

Copies Submitted: (1) Addressee

PLATES

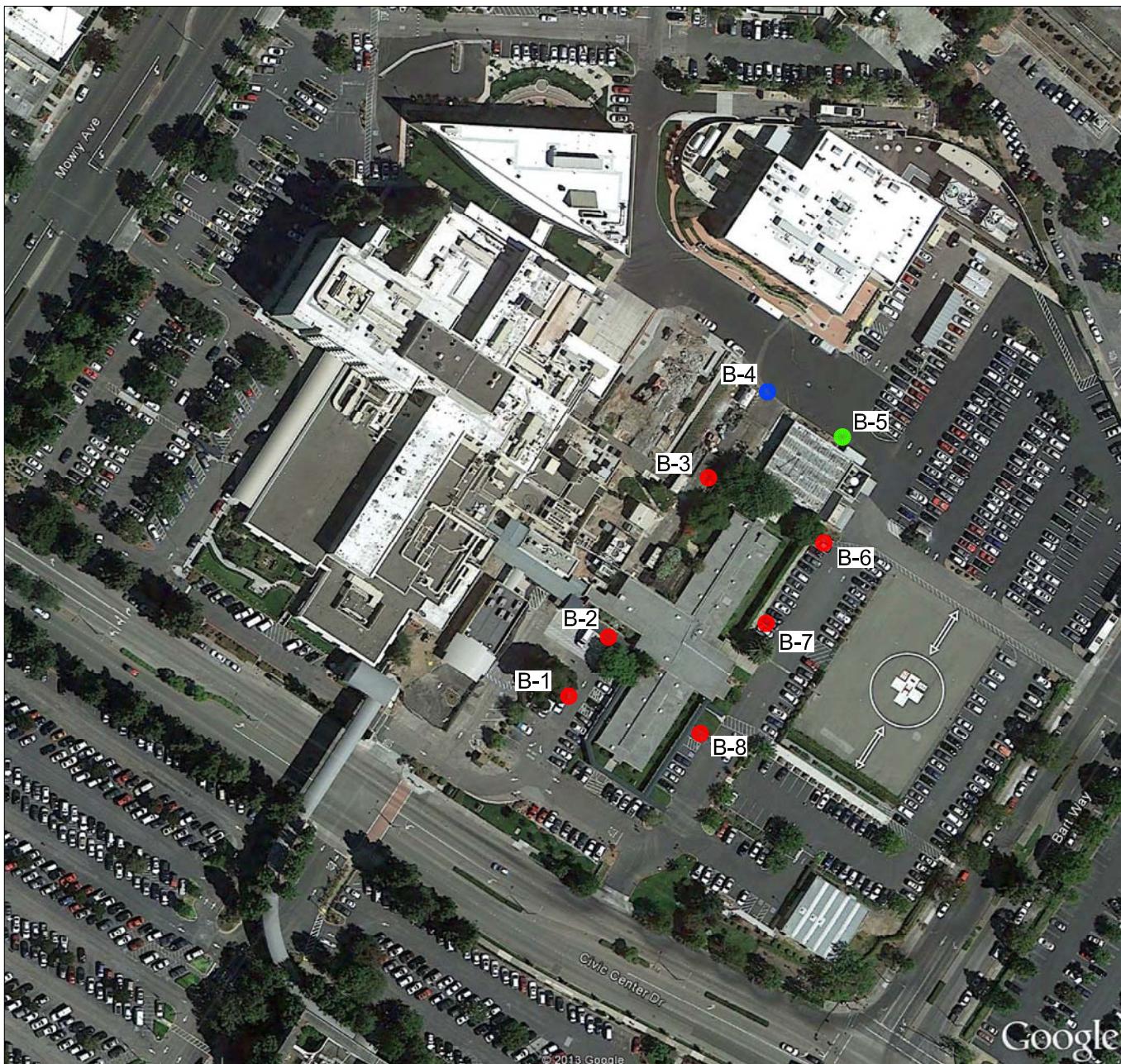


BASE MAP SOURCE: Thomas Guide 2001, Alameda & Contra Costa Counties (p. 752 & 753).



VICINITY MAP
Washington Hospital
Fremont, California

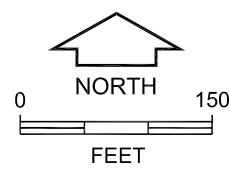
PLATE 1



BASE MAP SOURCE: Aerial photograph provided by Google Earth Pro, 2013.

LEGEND

- B-8 Approximate Location of Boring to depth of 30 ft bgs
- B-5 Approximate Location of Boring to depth of 35 ft bgs
- B-4 Approximate Location of Boring to depth of 40 ft bgs



SITE PLAN
Washington Hospital
Fremont, California

APPLICATION FOR DRILLING PERMIT AND SITE HAZARD INFORMATION

**APPLICATION
FOR
DRILLING PERMIT**

Application Received Date: _____ By: _____		Permit Issued Date: _____	Permit Expiration Date: _____	Job No. _____	Permit No. _____ Well No. _____	
JOB ADDRESS: <u>Washington Hospital - 2000 Mowry Avenue, Fremont, CA</u>						
PROPERTY OWNER	NAME: Washington Hospital ADDRESS: 2000 Mowry Avenue Fremont, CA 94538 TELEPHONE: 510-797-1111					<i>When properly signed THIS APPLICATION IS A VALID PERMIT</i>
	NAME: Fugro Consultants, Inc. ADDRESS: 1000 Broadway, Ste 440 Oakland, CA 94607 TELEPHONE: 510-268-0461 RG/CEG/RCE NO. PG 8788					
	NAME: Cascade Drilling L.P. ADDRESS: 120 South 23rd Street Richmond, CA 94804 E-MAIL ADDRESS: RMcGahey@cascadedrilling.com TELEPHONE: 510-478-0865 STATE LIC. NO. C57-938110					
PLEASE CHECK TYPE OF PROPOSED WORK <i>Each well or other excavation requires a separate permit application form unless otherwise indicated. Only one specific type of work can be checked per permit application.</i>						
WELLS <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> REPAIR <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> Water Well Monitoring Well: <input type="checkbox"/> Chemical Investigation <input type="checkbox"/> Injection Well (for Chemical Cleanup) <input type="checkbox"/> Geotechnical Investigation <input type="checkbox"/> Geothermal Heat Exchange Well <input type="checkbox"/> Dewatering Well (<i>Multiple dewatering wells may be grouped together on the same permit application form</i>)		EXPLORATORY HOLES <input checked="" type="checkbox"/> CONSTRUCT/DESTRUCT <i>Multiple exploratory holes of the same type may be grouped together on the same permit application form.</i> <input type="checkbox"/> Chemical Investigation <input type="checkbox"/> Injection Boreholes <input type="checkbox"/> Soil Vapor Sampling <input type="checkbox"/> Geotechnical Investigation Quantity: <u>8</u>		OTHER EXCAVATIONS <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> REPAIR <input type="checkbox"/> DESTRUCTION <input type="checkbox"/> Cathodic Protection Well <input type="checkbox"/> Inclinometer <input type="checkbox"/> Vibrating Wire Piezometer <input type="checkbox"/> Elevator Shaft <i>Multiple other excavations of the same type may be grouped together on the same permit application form for the following:</i> <input type="checkbox"/> Cleanup Site Excavation(s) <input type="checkbox"/> Wick Drains <input type="checkbox"/> Shaft, Tunnel, or Directional Borehole (s) <input type="checkbox"/> Support Piers, Piles, or Caissons <input type="checkbox"/> Other: _____ Quantity: _____		
DESCRIPTION OF PROPOSED WORK: <u>Drill eight (8) borings using direct push drilling and collect soil samples for analysis. Borings will be drilled as follows: six (6) borings to 30 feet bgs, one (1) boring to 35 feet bgs, one (1) boring to 40 ft bgs. Borings will be backfilled from bottom of boring to surface with neat cement.</u>						
PERMIT CONDITIONS: <hr/> <hr/> <hr/>						
FEES: <input type="checkbox"/> Private <input type="checkbox"/> City <input type="checkbox"/> Governmental Agency			FEES/DEPOSIT: Date Received _____ Estimated Amount \$ _____ <input type="checkbox"/> Cash Deposit <input type="checkbox"/> Bond GUARANTEE OF PERFORMANCE: <input type="checkbox"/> Cash Deposit <input type="checkbox"/> Bond REFUND: Amount \$ _____ Reason: _____			
ACWD SITE NO. _____ APPROVED FOR SCHEDULING BY: _____ DATE: _____ APPROVED BY: _____ DATE: _____						

I hereby agree to comply with all conditions of this permit in accordance with ACWD Ordinance No. 2010-01 and to furnish the District a completed copy of D.W.R. Drillers Report (form 188) within sixty (60) days after completion as well as any chemical testing results within thirty (30) days after completion.

Title: Senior Geologist Signature: _____ Date: 8/22/13

Representing: Fugro Consultants, Inc. Name (printed): Karen Emery



43885 South Grimmer Blvd., P.O. Box 5110, Fremont, CA 94537 Tel. No. (510) 668-4460 Fax No. (510) 651-1760

SITE HAZARD INFORMATION

Please provide the following information for the site

Owner's Name: Washington Hospital

Site Address: 2000 Mowry Avenue, Fremont, CA 94538

Consultant on Site: Fugro - Mike D'Anna

Phone No. (510) 610-5416

Site Safety Officer: Mike D'Anna

Phone No. (510) 610-5416

Type of Facility: Hospital

Anticipated Hazardous Substances - (Attach Additional Sheets if Necessary)

Anticipated Hazardous Substances (Within Residential Areas if any)
(Please include concentrations below. Note if free product historically on site)

Level of Personal Protection Equipment A B C D

Personal Protective Equipment:

R = Required A = As Needed, with description of action concentrations)

R	A	<input type="checkbox"/>	Hard Hat	<input type="checkbox"/>	Clothing (Type):	N/A
<input checked="" type="checkbox"/>		<input type="checkbox"/>	Safety Shoes	<input type="checkbox"/>	Respirator (Type):	N/A
<input checked="" type="checkbox"/>		<input type="checkbox"/>	Orange Traffic Vest	<input type="checkbox"/>	Cartridge (Type):	N/A
<input checked="" type="checkbox"/>		<input type="checkbox"/>	Hearing Protection	<input checked="" type="checkbox"/>	Gloves (Type):	Nitrile and/or work gloves
<input checked="" type="checkbox"/>		<input type="checkbox"/>	Safety Eyewear	<input type="checkbox"/>	Other:	

Site Hazard Information Provided By: Karen Emery Phone:(510) 268-0461
[Print](#)

Fugro Consultants, Inc. Sr. Geologist _____ Date: _____
Company name & title _____ Signature _____

ALAMEDA COUNTY WATER DISTRICT
43885 South Grimmer Blvd. • P.O. Box 5110
Fremont, CA 94537-5110
Permitting & Scheduling (510) 668-4460

APPLICATION
FOR
DRILLING PERMIT

ACWD ORDINANCE
NO. 2010-01

Application Received Date: <u>8/22/13</u>	By: <u>PM</u>	Permit Issued Date: <u>9/5/13</u>	Permit Expiration Date: <u>11/5/13</u>	Job No. <u>1025</u>	Permit No. <u>2013-0314</u>	
JOB ADDRESS <u>Washington Hospital - 2000 Mowry Avenue, Fremont, CA</u>			Well No. <u>N/A</u>			
PROPERTY OWNER	NAME: <u>Washington Hospital</u> ADDRESS: <u>2000 Mowry Avenue</u> <u>Fremont, CA 94538</u> TELEPHONE: <u>510-797-1111</u>					<i>When properly signed THIS APPLICATION IS A VALID PERMIT</i>
	NAME: <u>Fugro Consultants, Inc.</u> ADDRESS: <u>1000 Broadway, Ste 440</u> <u>Oakland, CA 94607</u> TELEPHONE: <u>510-268-0461</u>					
	RG/CEG/RCE NO. <u>PG 8788</u>					
CONSULTING ENGINEER	NAME: <u>Cascade Drilling L.P.</u> ADDRESS: <u>120 South 23rd Street</u> <u>Richmond, CA 94804</u> E-MAIL ADDRESS: <u>RMcGahey@cascadedrilling.com</u> TELEPHONE: <u>510-478-0865</u>					<i>to perform only work described below at the given job address, in accordance with ACWD Ordinance No. 2010-01 and all other applicable laws and regulations. Discontinuation of work may result in revocation of permit. Permittee must schedule the work in advance with ACWD. ACWD's approval of drawings, designs, specifications, work plans, reports or incidental work and materials shall not relieve the permittee of responsibility for the technical adequacy of the work. Except for special circumstances, all work to be inspected must be performed within ACWD work hours - 7:00 a.m. to 4:30 p.m., Monday through Friday.</i>
	STATE LIC. NO. <u>C57-938110</u>					
PLEASE CHECK TYPE OF PROPOSED WORK						
<i>Each well or other excavation requires a separate permit application form unless otherwise indicated. Only one specific type of work can be checked per permit application.</i>						
WELLS			EXPLORATORY HOLES		OTHER EXCAVATIONS	
<input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> REPAIR <input type="checkbox"/> DESTRUCTION			<input checked="" type="checkbox"/> CONSTRUCT/DESTRUCT.		<input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> REPAIR <input type="checkbox"/> DESTRUCTION	
<input type="checkbox"/> Water Well Monitoring Well: <input type="checkbox"/> Chemical Investigation <input type="checkbox"/> Injection Well (for Chemical Cleanup) <input type="checkbox"/> Geotechnical Investigation <input type="checkbox"/> Geothermal Heat Exchange Well			<i>Multiple exploratory holes of the same type may be grouped together on the same permit application form.</i>		<input type="checkbox"/> Cathodic Protection Well <input type="checkbox"/> Inclinometer <input type="checkbox"/> Vibrating Wire Piezometer <input type="checkbox"/> Elevator Shaft	
<input type="checkbox"/> Dewatering Well (<i>Multiple dewatering wells may be grouped together on the same permit application form</i>)			<input type="checkbox"/> Chemical Investigation <input type="checkbox"/> Injection Boreholes <input type="checkbox"/> Soil Vapor Sampling <input type="checkbox"/> Geotechnical Investigation		<i>Multiple other excavations of the same type may be grouped together on the same permit application form for the following:</i> <input type="checkbox"/> Cleanup Site Excavation(s) <input type="checkbox"/> Wick Drains <input type="checkbox"/> Shaft, Tunnel, or Directional Borehole (s) <input type="checkbox"/> Support Piers, Piles, or Caissons	
Quantity: <u> </u>			Quantity: <u>8</u>		Quantity: <u> </u>	
DESCRIPTION OF PROPOSED WORK:						
<u>Drill eight (8) borings using direct push drilling and collect soil samples for analysis. Borings will be drilled as follows: six (6) borings to 30 feet bgs, one (1) boring to 35 feet bgs, one (1) boring to 40 ft bgs. Borings will be backfilled from bottom of boring to surface with neat cement.</u>						TOTAL ESTIMATED COST <u>\$ 710.00</u>
PERMIT CONDITIONS: <u>Exploratory Boreholes to be backfilled from bottom of borehole to surface with neat cement</u>						
FEES: <input type="checkbox"/> Private <input type="checkbox"/> City <input type="checkbox"/> Governmental Agency			FEES/ Date Received <u>8-22-13</u> Estimated Amount \$ <u>710</u>			
GUARANTEE OF PERFORMANCE: <input type="checkbox"/> Cash Deposit <input type="checkbox"/> Bond			DEPOSIT: Check No. <u>2465</u> Actual Amount \$ <u>710</u>			
REFUND: Amount \$ <u> </u> Reason: <u> </u>			Cash <u> </u> Difference \$ <u> </u>			
ACWD SITE NO. <u>430</u>			APPROVED FOR SCHEDULING BY: <u>BC</u> DATE: <u>8/27/13</u> APPROVED BY: <u>MH</u> DATE: <u>9/5/13</u>			

I hereby agree to comply with all conditions of this permit in accordance with ACWD Ordinance No. 2010-01 and to furnish the District a completed copy of D.W.R. Drillers Report (form 188) within sixty (60) days after completion as well as any chemical testing results within thirty (30) days after completion.

Title: Senior Geologist Signature: Karen Emery Date: 8/22/13

Representing: Fugro Consultants, Inc. Name (printed): Karen Emery

**APPENDIX B
LOGS OF BORINGS B-1 THROUGH B-8**

CLASSIFICATION AND MATERIAL SYMBOLS

MAJOR DIVISIONS PER ASTM D2488-06			MAJOR GROUP NAMES AND MATERIAL SYMBOLS	
COARSE-GRAINED SOILS More than 50% retained on the No. 200 sieve	GRAVELS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	Clean gravels less than 5% fines	GW	Well-Graded GRAVEL
			GP	Poorly Graded GRAVEL
		Gravels with more than 12% fines	GM	SILTY GRAVEL
			GC	CLAYEY GRAVEL
	SANDS MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	Clean sand less than 5% fines	SW	Well-Graded SAND
			SP	Poorly Graded SAND
		Sands with more than 12% fines	SM	SILTY SAND
			SC	CLAYEY SAND
FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	SILTS AND CLAYS Liquid Limit Less than 50%		ML	SILT
			CL	Lean CLAY
			OL	ORGANIC SILT
	SILTS AND CLAYS Liquid Limit Greater than 50%		MH	Elastic SILT
			CH	Fat CLAY
			OH	ORGANIC CLAY
	HIGHLY ORGANIC SOILS		PT	Peat or Highly Organic Soils
	Notes: Classification of soils on the boring logs is in general accordance with ASTM D2488, or D2487 if appropriate laboratory data are available. The geologic formation is noted in bold font at the top of interpreted interval on the boring logs.		OTHER MATERIAL SYMBOLS	
			Debris or Mixed Fill Pavement with Aggregate Base	

SAMPLER TYPE

Note: Refer to text of report for additional details or other sampler types.

BLOW COUNT

Number of blows required to drive sampler each of three 6-in. intervals, as measured in the field (uncorrected). An SPT hammer (140 lb., falling 30-in.) was used unless otherwise noted on the boring log. For example:

Blow Count	Description
5	5, 7, and 8 blows for first, second, and third interval, respectively.
7	
8	
35 50/3"	35 blows for the first interval. 50 blows for the first 3 inches of the second interval. Lack of third value implies that driving was stopped 3 inches into the second interval.
WOH WOH 5	"WOH" indicates that the weight of the hammer was sufficient to advance the sampler over the first two intervals. 5 blows were required to advance the sampler over the third interval.

N-VALUE

The N-Value represents the blowcount for the last 12 inches of the sample drive if three 6-inch intervals were driven. N-value presented is independent of impact energy. If 50 hammer blows were insufficient to drive through either the second or the third interval, the total number of blows and total length driven are reported (excluding the first interval). "ref" (refusal) indicates that 50 blows were insufficient to drive through the first 6-inch interval.

Parenthesis indicate that an approximate correction has been applied for non-SPT drive samplers. For example, a factor of 0.63 is commonly used to adjust blow counts obtained using a 3-inch outside diameter modified California sampler to correspond to Standard Penetration Test.

UNDRAINED SHEAR STRENGTH

A value of undrained shear strength is reported. The value is followed by a letter code indicating the type of test that was performed, as follows:

- U - Unconfined Compression
- Q - Unconsolidated Undrained Triaxial
- T - Tovane
- P - Pocket Penetrometer
- M - Miniature Vane
- F - Field Vane
- R - R-value

OTHER TESTS

Field or laboratory tests without a dedicated column on the boring log are reported in the Other Tests column. A letter code is used to indicate the type of test. For certain tests, a value representing the test result is also provided. Typical letter codes are as follows. Additional codes may be used. Refer to the report text and the laboratory testing results for additional information.

- k - Permeability (cm/s)
- Consol - Consolidation
- Gs - Specific Gravity
- MA - Particle Size Analysis
- EI - Expansion Index
- OVM - Organic Vapor Meter

WATER LEVEL SYMBOLS

- ▽ Initial water level
- ▼ Final water level
- ▲ Seepage encountered

INCREASING MOISTURE CONTENT

CONSISTENCY OF COHESIVE SOIL

CONSISTENCY	UNDRAINED SHEAR STRENGTH (KIPS PER SQUARE FOOT)
Very Soft	< 0.25
Soft	0.25 to 0.50
Medium Stiff	0.50 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	> 4.0

Note: In absence of test data, consistency has been estimated based on manual observation.

APPARENT DENSITY OF COHESIONLESS SOIL

APPARENT DENSITY	N-VALUE
Very Loose	0 to 4
Loose	5 to 9
Medium Dense	10 to 29
Dense	30 to 49
Very Dense	> 49

DEPTH, ft	MATERIAL SYMBOL	SAMPLER TYPE	BLOW COUNT OR PRESSURE, psi	N VALUE OR ROD %	RECOVERY	LOCATION:	MATERIAL DESCRIPTION						OTHER TESTS
							DRY UNIT WEIGHT,pcf	WATER CONTENT, %	% PASSING #200 SIEVE	Liquid Limit, %	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH, S_u , ksf	
0.0	Asphalt Pavement												PID = 0.0
0.0 - 6.0	GRAVELLY SILT (ML): gray, dry, fine to medium subangular gravel, no odor or staining												PID = 0.0
6.0 - 10.0	GRAVELLY Lean CLAY (CL): orange-brown, moist, low plasticity, medium subangular gravel, no odor or staining												PID = 0.0
10.0 - 15.0	Lean CLAY (CL): brown, moist, low plasticity, some light brown mottling, no odor or staining, black nodules - no black nodules												PID = 0.0
15.0 - 20.0	CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining												PID = 0.0
20.0 - 25.0	Lean CLAY (CL): brown, moist, low plasticity, no odor or staining												PID = 0.0
25.0 - 30.0	Well-graded SAND with GRAVEL (SW): brown, moist, fine to coarse grained sand, fine to coarse subrounded gravel, no odor or staining												PID = 0.0
30.0	- Boring Terminated at 30 feet bgs NOTES: 1. Terms and symbols defined on Plate B-1.												PID = 0.0

BORING DEPTH: 30.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 12, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-1

Washington Hospital CC/ED Building
Fremont, California

CITE STANDARD LOG \\SACWEST04\Public\GJ\OBRODOCS\04_72130070 WASHINGTON HOSPITAL GNT04_72130070.GPJ ENVIRONMENTAL VERSION OF OGEM LIB JAN2012.GLB 9/27/13 09:36 a

BORING DEPTH: 30.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 12, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-2
Washington Hospital CC/ED Building
Fremont, California

DEPTH, ft	MATERIAL SYMBOL	SAMPLER TYPE	BLOW COUNT OR PRESSURE, psi	N VALUE OR ROD%,	RECOVERY	LOCATION:	MATERIAL DESCRIPTION						OTHER TESTS
							DRY UNIT WEIGHT,pcf	WATER CONTENT, %	% PASSING #200 SIEVE	Liquid Limit, %	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH, S_u , ksf	
0.0						Asphalt Pavement							PID = 0.1
1.0						Poorly-graded SAND with GRAVEL (SP): light brown, dry, fine grained sand, medium subrounded gravel, no odor or staining							PID = 0.0
2.0						Lean CLAY (CL): dark brown, moist, moderate plasticity, no odor or staining, some organics (wood) - brown, low plasticity							PID = 0.1
3.0						CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining							PID = 0.1
4.0													
5.0													
6.0													
7.0													
8.0													
9.0													
10.0													
11.0													
12.0													
13.0													
14.0													
15.0													
16.0													
17.0													
18.0													
19.0													
20.0													
21.0													
22.0													
23.0													
24.0													
25.0													
26.0													
27.0													
28.0													
29.0													
30.0						- Boring Terminated at 30 feet bgs NOTES: 1. Terms and symbols defined on Plate B-1.							PID = 0.6

BORING DEPTH: 30.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 12, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-3

Washington Hospital CC/ED Building
Fremont, California

DEPTH, ft	MATERIAL SYMBOL	SAMPLER TYPE	BLOW COUNT OR PRESSURE, psi	N VALUE OR ROD %	RECOVERY	LOCATION:	MATERIAL DESCRIPTION						OTHER TESTS
							DRY UNIT WEIGHT,pcf	WATER CONTENT, %	% PASSING #200 SIEVE	LIQUID LIMIT, %	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH, S_u , ksf	
0						Asphalt Pavement							PID = 0.1
2						GRAVELLY SILT (ML): gray, dry, fine to medium subangular gravel, no odor or staining							PID = 0.0
4						Lean CLAY with GRAVEL (CL): brown, moist, low plasticity, coarse subrounded gravel, no odor or staining							
6						Lean CLAY (CL): brown, moist, low plasticity, no odor or staining							
8						CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining							PID = 0.0
10						Lean CLAY (CL): brown, moist, low plasticity, no odor or staining							
12						CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining							PID = 0.0
14						Well-graded SAND with GRAVEL (SW): brown, moist, fine to coarse grained sand, fine to coarse subrounded to subangular gravel, no odor or staining							
16													PID = 0.0
18													
20													PID = 0.0
22													
24													PID = 0.0
26													
28													PID = 0.0
30													
32													PID = 0.0
34													
36													PID = 0.0
38													
40						- Boring Terminated at 40 feet bgs NOTES: 1. Terms and symbols defined on Plate B-1.							PID = 0.1

BORING DEPTH: 40.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 12, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-4

Washington Hospital CC/ED Building
Fremont, California

DEPTH, ft	MATERIAL SYMBOL	SAMPLER TYPE	BLOW COUNT OR PRESSURE, psi	N VALUE OR ROD %	RECOVERY	LOCATION:	MATERIAL DESCRIPTION						OTHER TESTS
							DRY UNIT WEIGHT, pcf	WATER CONTENT, %	% PASSING #200 SIEVE	Liquid Limit, %	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH, S_u , ksf	
10						Asphalt Pavement							PID = 0.2
5						Poorly-graded SAND with GRAVEL (SP): orange brown, moist, fine to medium grained sand, medium subrounded to subangular gravel, no odor or staining							PID = 0.2
10						Lean CLAY (CL): brown, moist, low plasticity, no odor or staining							PID = 0.3
15						CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining							PID = 0.2
20						Well-graded SAND with GRAVEL (SW): brown, moist, fine to coarse grained sand, fine to coarse subrounded to subangular gravel, no odor or staining							PID = 0.2
25						Poorly-graded SAND (SP): brown, moist, fine grained sand, no odor or staining							PID = 0.3
30						Well-graded SAND with GRAVEL (SW): brown, moist, fine to coarse grained sand, fine to coarse subrounded to subangular gravel, no odor or staining							PID = 0.3
35						- Boring Terminated at 35 feet bgs							PID = 0.2
NOTES:							1. Terms and symbols defined on Plate B-1.						

BORING DEPTH: 35.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 12, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-5

Washington Hospital CC/ED Building
Fremont, California

DEPTH, ft	MATERIAL SYMBOL	SAMPLER TYPE	BLOW COUNT OR PRESSURE, psi	N VALUE OR ROD %	RECOVERY	LOCATION:	MATERIAL DESCRIPTION						OTHER TESTS
							DRY UNIT WEIGHT,pcf	WATER CONTENT, %	% PASSING #200 SIEVE	Liquid Limit, %	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH, S _u , ksf	
5						Asphalt Pavement							PID = 1.5 PID = 2.3
6						Lean CLAY (CL): brown, moist, low plasticity, occasional coarse angular gravel, some organics (roots), no odor or staining - color change to dark brown - color change to brown							
10						CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining							PID = 1.8
15						Lean CLAY (CL): brown, moist, low plasticity, no odor or staining							PID = 1.8
20						CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining							PID = 2.4
25						Well-graded SAND with GRAVEL (SW): brown, moist, fine to coarse grained sand, fine to coarse surrounded to subangular gravel, no odor or staining - No recovery from 16 to 20 feet							PID = 1.6
30						CLAYEY GRAVEL with SAND (GC): brown, moist, medium to coarse surrounded gravel, coarse grained sand, no odor or staining - Boring Terminated at 30 feet bgs							PID = 2.8 PID = 2.2
						NOTES: 1. Terms and symbols defined on Plate B-1.							

BORING DEPTH: 30.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 13, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-6

Washington Hospital CC/ED Building
Fremont, California

ENVIRONMENTAL VERSION OF OGEM LIB JAN2012.GBL 9/27/13 09:36 a
FCCP STANDARD LOG \SACWEST04\PUBLIC\JOBEDOCS\04-72130070 WASHINGTON HOSPITAL GINT04-72130070.GBY

BORING DEPTH: 30.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 13, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-7
Washington Hospital CC/ED Building
Fremont, California

DEPTH, ft	MATERIAL SYMBOL	SAMPLER TYPE	BLOW COUNT OR PRESSURE, psi	N VALUE OR ROD %	RECOVERY	LOCATION:	MATERIAL DESCRIPTION						OTHER TESTS
							DRY UNIT WEIGHT,pcf	WATER CONTENT, %	% PASSING #200 SIEVE	Liquid Limit, %	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH, S_u , ksf	
0						Asphalt Pavement							PID = 0.0
1.0						Well-graded SAND with GRAVEL (SW): brown, moist, fine to coarse grained sand, fine to coarse subangular gravel, no odor or staining							PID = 0.0
5						Lean CLAY (CL): brown, moist, low plasticity, with gray mottling, no odor or staining - color change to dark brown							
6						CLAYEY SAND (SC): brown, moist, fine grained sand, no odor or staining							PID = 0.0
10						Poorly-graded SAND (SP): brown, moist, fine grained sand, no odor or staining							PID = 0.0
15						Well-graded SAND with GRAVEL (SW): brown, moist, fine to coarse grained sand, fine to coarse subrounded to subangular gravel, no odor or staining							PID = 0.0
20													PID = 0.0
25													PID = 0.0
30						- Boring Terminated at 30 feet bgs NOTES: 1. Terms and symbols defined on Plate B-1.							PID = 0.0

BORING DEPTH: 30.0 ft
BACKFILL: Grout
DEPTH TO WATER: Not Encountered
FIELDWORK DATE: September 13, 2013
DRILLING METHOD: 2-in. dia. Direct Push

HAMMER TYPE: Automatic Trip
RIG TYPE: Geoprobe 6600
DRILLED BY: Cascade
LOGGED BY: M. D'Anna
CHECKED BY: K. Emery

LOG OF BORING NO. B-8

Washington Hospital CC/ED Building
Fremont, California

APPENDIX C
ANALYTICAL LABORATORY REPORTS



September 23, 2013



Karen Emery
Fugro West, Inc.
1000 Broadway, Suite 440
Oakland, CA 94607
Tel: (510) 267-4432
Fax:(510) 268-0137

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1302839

Client Reference : Washington Hospital CC/ED Building, 04.72130070

Enclosed are the results for sample(s) received on September 14, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eddie Rodriguez'.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1@0.5	1302839-01	Soil	9/12/13 8:41	9/14/13 8:40
B-1@1.5	1302839-02	Soil	9/12/13 8:40	9/14/13 8:40
B-1@4	1302839-03	Soil	9/12/13 8:57	9/14/13 8:40
B-1@14	1302839-04	Soil	9/12/13 9:15	9/14/13 8:40
B-1@28	1302839-05	Soil	9/12/13 9:33	9/14/13 8:40
B-2@1	1302839-06	Soil	9/12/13 9:44	9/14/13 8:40
B-2@2	1302839-07	Soil	9/12/13 9:43	9/14/13 8:40
B-2@7	1302839-08	Soil	9/12/13 9:53	9/14/13 8:40
B-2@20	1302839-09	Soil	9/12/13 10:09	9/14/13 8:40
B-2@27	1302839-10	Soil	9/12/13 10:19	9/14/13 8:40
B-3@0.5	1302839-11	Soil	9/12/13 12:31	9/14/13 8:40
B-3@1.5	1302839-12	Soil	9/12/13 12:30	9/14/13 8:40
B-3@4	1302839-13	Soil	9/12/13 12:38	9/14/13 8:40
B-3@9	1302839-14	Soil	9/12/13 12:42	9/14/13 8:40
B-3@19	1302839-15	Soil	9/12/13 12:57	9/14/13 8:40
B-3@29	1302839-16	Soil	9/12/13 13:09	9/14/13 8:40
B-4@1	1302839-17	Soil	9/12/13 11:02	9/14/13 8:40
B-4@2	1302839-18	Soil	9/12/13 11:00	9/14/13 8:40
B-4@7	1302839-19	Soil	9/12/13 11:09	9/14/13 8:40
B-4@12	1302839-20	Soil	9/12/13 11:21	9/14/13 8:40
B-4@22	1302839-21	Soil	9/12/13 11:32	9/14/13 8:40
B-4@32	1302839-22	Soil	9/12/13 11:50	9/14/13 8:40
B-4@39	1302839-23	Soil	9/12/13 11:54	9/14/13 8:40
B-5@0.5	1302839-24	Soil	9/12/13 13:44	9/14/13 8:40
B-5@1.5	1302839-25	Soil	9/12/13 13:42	9/14/13 8:40
B-5@4	1302839-26	Soil	9/12/13 13:50	9/14/13 8:40
B-5@14	1302839-27	Soil	9/12/13 14:00	9/14/13 8:40
B-5@24	1302839-28	Soil	9/12/13 14:12	9/14/13 8:40
B-5@34	1302839-29	Soil	9/12/13 14:28	9/14/13 8:40
B-6@1	1302839-30	Soil	9/13/13 8:51	9/14/13 8:40
B-6@2	1302839-31	Soil	9/13/13 8:50	9/14/13 8:40
B-6@7	1302839-32	Soil	9/13/13 9:04	9/14/13 8:40
B-6@16-20	1302839-33	Soil	9/13/13 9:27	9/14/13 8:40
B-6@27	1302839-34	Soil	9/13/13 9:31	9/14/13 8:40
B-7@0.5	1302839-35	Soil	9/13/13 7:54	9/14/13 8:40
B-7@1.5	1302839-36	Soil	9/13/13 7:53	9/14/13 8:40
B-7@4	1302839-37	Soil	9/13/13 8:01	9/14/13 8:40



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

B-7@9	1302839-38	Soil	9/13/13	8:06	9/14/13	8:40
B-7@19	1302839-39	Soil	9/13/13	8:20	9/14/13	8:40
B-7@24	1302839-40	Soil	9/13/13	8:23	9/14/13	8:40
B-7@29	1302839-41	Soil	9/13/13	8:30	9/14/13	8:40
B-8@1	1302839-42	Soil	9/13/13	6:58	9/14/13	8:40
B-8@2	1302839-43	Soil	9/13/13	6:57	9/14/13	8:40
B-8@7	1302839-44	Soil	9/13/13	7:07	9/14/13	8:40
B-8@12	1302839-45	Soil	9/13/13	7:17	9/14/13	8:40
B-8@22	1302839-46	Soil	9/13/13	7:33	9/14/13	8:40



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@0.5

Lab ID: 1302839-01

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
4,4'-DDT [2C]	3.0	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 18:26	
<i>Surrogate: Decachlorobiphenyl</i>	<i>69.6 %</i>		<i>32 - 113</i>		B3I0297	09/18/2013	<i>09/20/13 18:26</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>83.5 %</i>		<i>32 - 101</i>		B3I0297	09/18/2013	<i>09/20/13 18:26</i>	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-1@1.5
Lab ID: 1302839-02
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Arsenic	6.1	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Barium	180	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Chromium	55	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Cobalt	11	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Copper	26	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Lead	6.7	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Nickel	69	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Selenium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Vanadium	31	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	
Zinc	44	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:25	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:08	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 14:42	
Surrogate: 4-Bromofluorobenzene	76.3 %		54 - 150		B3I0259	09/17/2013	09/17/13 14:42	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	4.8	1.0	NA	1	B3I0295	09/18/2013	09/19/13 01:58	
ORO	7.0	1.0	NA	1	B3I0295	09/18/2013	09/19/13 01:58	
Surrogate: p-Terphenyl	49.8 %		33 - 147		B3I0295	09/18/2013	09/19/13 01:58	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@1.5

Lab ID: 1302839-02

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:42	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:42	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:42	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 14:42	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:42	
<i>Surrogate: 4-Bromofluorobenzene</i>	74.4 %		53 - 136		B3I0259	09/17/2013	09/17/13 14:42	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 15:22	
<i>Surrogate: Decachlorobiphenyl</i>	95.9 %		32 - 113		B3I0297	09/18/2013	09/20/13 15:22	
<i>Surrogate: Tetrachloro-m-xylene</i>	87.8 %		32 - 101		B3I0297	09/18/2013	09/20/13 15:22	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@4

Lab ID: 1302839-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Arsenic	6.2	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Barium	150	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Chromium	58	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Cobalt	11	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Copper	27	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Lead	6.8	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Nickel	72	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Selenium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Vanadium	31	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	
Zinc	44	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:29	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:19	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 14:58	
<i>Surrogate: 4-Bromofluorobenzene</i>	92.6 %		54 - 150		B3I0259	09/17/2013	09/17/13 14:58	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	12	1.0	NA	1	B3I0295	09/18/2013	09/19/13 04:46	
ORO	20	1.0	NA	1	B3I0295	09/18/2013	09/19/13 04:46	
<i>Surrogate: p-Terphenyl</i>	62.1 %		33 - 147		B3I0295	09/18/2013	09/19/13 04:46	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@4

Lab ID: 1302839-03

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:58	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:58	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:58	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 14:58	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 14:58	
<i>Surrogate: 4-Bromofluorobenzene</i>	89.8 %		53 - 136		B3I0259	09/17/2013	09/17/13 14:58	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@14

Lab ID: 1302839-04

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Arsenic	3.9	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Barium	97	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Chromium	43	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Cobalt	6.6	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Copper	18	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Lead	4.6	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Nickel	53	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Selenium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Vanadium	25	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	
Zinc	38	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:31	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:21	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 15:14	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.3 %		54 - 150		B3I0259	09/17/2013	09/17/13 15:14	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	4.2	1.0	NA	1	B3I0295	09/18/2013	09/18/13 23:45	
ORO	3.7	1.0	NA	1	B3I0295	09/18/2013	09/18/13 23:45	
<i>Surrogate: p-Terphenyl</i>	53.2 %		33 - 147		B3I0295	09/18/2013	09/18/13 23:45	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@14

Lab ID: 1302839-04

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:14	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:14	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:14	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 15:14	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:14	
Surrogate: 4-Bromofluorobenzene	96.3 %		53 - 136		B3I0259	09/17/2013	09/17/13 15:14	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@28

Lab ID: 1302839-05

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Arsenic	4.3	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Barium	79	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Beryllium	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Cadmium	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Chromium	56	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Cobalt	6.2	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Copper	20	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Lead	4.1	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Molybdenum	2.6	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Nickel	48	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Selenium	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Silver	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Thallium	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Vanadium	22	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	
Zinc	42	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:32	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:23	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 15:30	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>110 %</i>		<i>54 - 150</i>		B3I0259	09/17/2013	<i>09/17/13 15:30</i>	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	18	1.0	NA	1	B3I0295	09/18/2013	09/19/13 02:49	
ORO	31	1.0	NA	1	B3I0295	09/18/2013	09/19/13 02:49	
<i>Surrogate: p-Terphenyl</i>	<i>65.5 %</i>		<i>33 - 147</i>		B3I0295	09/18/2013	<i>09/19/13 02:49</i>	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-1@28

Lab ID: 1302839-05

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:30	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:30	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:30	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 15:30	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:30	
Surrogate: 4-Bromofluorobenzene	106 %		53 - 136		B3I0259	09/17/2013	09/17/13 15:30	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-2@1

Lab ID: 1302839-06

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
4,4'-DDT [2C]	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 17:33	
<i>Surrogate: Decachlorobiphenyl</i>	93.1 %		32 - 113		B3I0297	09/18/2013	09/20/13 17:33	
<i>Surrogate: Tetrachloro-m-xylene</i>	93.4 %		32 - 101		B3I0297	09/18/2013	09/20/13 17:33	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-2@2

Lab ID: 1302839-07

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Arsenic	6.1	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Barium	180	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Beryllium	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Cadmium	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Chromium	58	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Cobalt	11	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Copper	27	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Lead	6.8	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Molybdenum	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Nickel	71	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Selenium	1.1	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Silver	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Thallium	ND	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Vanadium	32	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	
Zinc	43	0.99	NA	1	B3I0306	09/19/2013	09/19/13 12:34	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:25	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 15:46	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>110 %</i>		<i>54 - 150</i>		B3I0259	09/17/2013	<i>09/17/13 15:46</i>	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	11	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:22	
ORO	12	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:22	
<i>Surrogate: p-Terphenyl</i>	<i>68.9 %</i>		<i>33 - 147</i>		B3I0295	09/18/2013	<i>09/19/13 03:22</i>	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-2@2

Lab ID: 1302839-07

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:46	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:46	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:46	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 15:46	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 15:46	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>107 %</i>		<i>53 - 136</i>		B3I0259	09/17/2013	<i>09/17/13 15:46</i>	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 15:35	
<i>Surrogate: Decachlorobiphenyl</i>	<i>96.7 %</i>		<i>32 - 113</i>		B3I0297	09/18/2013	<i>09/20/13 15:35</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>80.0 %</i>		<i>32 - 101</i>		B3I0297	09/18/2013	<i>09/20/13 15:35</i>	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-2@7
Lab ID: 1302839-08
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Arsenic	5.7	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Barium	110	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Chromium	49	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Cobalt	10	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Copper	23	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Lead	5.8	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Nickel	67	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Selenium	1.0	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Vanadium	26	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	
Zinc	41	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:35	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:27	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 16:02	
<i>Surrogate: 4-Bromofluorobenzene</i>	89.1 %		54 - 150		B3I0259	09/17/2013	09/17/13 16:02	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.2	1.0	NA	1	B3I0295	09/18/2013	09/19/13 00:01	
ORO	5.2	1.0	NA	1	B3I0295	09/18/2013	09/19/13 00:01	
<i>Surrogate: p-Terphenyl</i>	48.9 %		33 - 147		B3I0295	09/18/2013	09/19/13 00:01	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-2@7

Lab ID: 1302839-08

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:02	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:02	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:02	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 16:02	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:02	
Surrogate: 4-Bromofluorobenzene	86.5 %		53 - 136		B3I0259	09/17/2013	09/17/13 16:02	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-2@20
Lab ID: 1302839-09
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Arsenic	3.3	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Barium	53	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Chromium	39	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Cobalt	5.1	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Copper	14	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Lead	3.4	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Molybdenum	3.6	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Nickel	37	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Selenium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Vanadium	17	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	
Zinc	32	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:41	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:29	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 16:17	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>81.1 %</i>		<i>54 - 150</i>		B3I0259	09/17/2013	<i>09/17/13 16:17</i>	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	21	1.0	NA	1	B3I0295	09/18/2013	09/19/13 05:02	
ORO	47	1.0	NA	1	B3I0295	09/18/2013	09/19/13 05:02	
<i>Surrogate: p-Terphenyl</i>	<i>78.2 %</i>		<i>33 - 147</i>		B3I0295	09/18/2013	<i>09/19/13 05:02</i>	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-2@20

Lab ID: 1302839-09

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:17	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:17	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:17	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 16:17	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:17	
Surrogate: 4-Bromofluorobenzene	78.7 %		53 - 136		B3I0259	09/17/2013	09/17/13 16:17	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-2@27
Lab ID: 1302839-10
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Arsenic	5.4	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Barium	76	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Chromium	40	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Cobalt	8.1	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Copper	18	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Lead	4.9	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Nickel	49	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Selenium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Vanadium	25	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	
Zinc	38	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:42	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:31	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 16:34	
Surrogate: 4-Bromofluorobenzene	99.9 %		54 - 150		B3I0259	09/17/2013	09/17/13 16:34	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.5	1.0	NA	1	B3I0295	09/18/2013	09/19/13 02:15	
ORO	5.2	1.0	NA	1	B3I0295	09/18/2013	09/19/13 02:15	
Surrogate: p-Terphenyl	57.7 %		33 - 147		B3I0295	09/18/2013	09/19/13 02:15	



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1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-2@27

Lab ID: 1302839-10

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:34	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:34	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:34	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 16:34	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:34	
<i>Surrogate: 4-Bromofluorobenzene</i>	96.5 %		53 - 136		B3I0259	09/17/2013	09/17/13 16:34	



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Fugro West, Inc.

1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@0.5

Lab ID: 1302839-11

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	5.8	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
4,4'-DDE	25	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
4,4'-DDT	2.6	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 17:47	
<i>Surrogate: Decachlorobiphenyl</i>	75.7 %		32 - 113		B3I0297	09/18/2013	09/20/13 17:47	
<i>Surrogate: Tetrachloro-m-xylene</i>	81.5 %		32 - 101		B3I0297	09/18/2013	09/20/13 17:47	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-3@1.5
Lab ID: 1302839-12
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Arsenic	6.5	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Barium	170	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Chromium	60	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Cobalt	12	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Copper	28	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Lead	7.4	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Nickel	76	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Selenium	1.0	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Vanadium	33	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	
Zinc	48	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:44	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:33	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 16:50	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>		<i>54 - 150</i>		B3I0259	09/17/2013	<i>09/17/13 16:50</i>	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	12	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:56	
ORO	11	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:56	
<i>Surrogate: p-Terphenyl</i>	<i>76.4 %</i>		<i>33 - 147</i>		B3I0295	09/18/2013	<i>09/19/13 03:56</i>	



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Fugro West, Inc.

1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@1.5

Lab ID: 1302839-12

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:50	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:50	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:50	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 16:50	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 16:50	
<i>Surrogate: 4-Bromofluorobenzene</i>	97.9 %		53 - 136		B3I0259	09/17/2013	09/17/13 16:50	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
4,4'-DDE	5.1	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 15:48	
<i>Surrogate: Decachlorobiphenyl</i>	81.6 %		32 - 113		B3I0297	09/18/2013	09/20/13 15:48	
<i>Surrogate: Tetrachloro-m-xylene</i>	75.9 %		32 - 101		B3I0297	09/18/2013	09/20/13 15:48	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@4

Lab ID: 1302839-13

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Arsenic	6.3	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Barium	230	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Chromium	61	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Cobalt	12	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Copper	28	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Lead	7.0	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Nickel	75	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Selenium	1.1	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Vanadium	32	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	
Zinc	46	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:45	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:39	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 17:06	
<i>Surrogate: 4-Bromofluorobenzene</i>	92.6 %		54 - 150		B3I0259	09/17/2013	09/17/13 17:06	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	2.8	1.0	NA	1	B3I0295	09/18/2013	09/18/13 23:28	
ORO	3.2	1.0	NA	1	B3I0295	09/18/2013	09/18/13 23:28	
<i>Surrogate: p-Terphenyl</i>	42.4 %		33 - 147		B3I0295	09/18/2013	09/18/13 23:28	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@4

Lab ID: 1302839-13

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:06	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:06	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:06	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 17:06	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:06	
Surrogate: 4-Bromofluorobenzene	89.5 %		53 - 136		B3I0259	09/17/2013	09/17/13 17:06	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@9

Lab ID: 1302839-14

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Arsenic	5.5	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Barium	110	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Chromium	56	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Cobalt	10	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Copper	23	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Lead	5.8	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Nickel	74	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Selenium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Vanadium	27	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	
Zinc	44	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:47	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:41	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 17:22	
<i>Surrogate: 4-Bromofluorobenzene</i>	102 %		54 - 150		B3I0259	09/17/2013	09/17/13 17:22	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.6	1.0	NA	1	B3I0295	09/18/2013	09/19/13 00:18	
ORO	5.5	1.0	NA	1	B3I0295	09/18/2013	09/19/13 00:18	
<i>Surrogate: p-Terphenyl</i>	74.3 %		33 - 147		B3I0295	09/18/2013	09/19/13 00:18	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@9

Lab ID: 1302839-14

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:22	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:22	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:22	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 17:22	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:22	
Surrogate: 4-Bromofluorobenzene	97.8 %		53 - 136		B3I0259	09/17/2013	09/17/13 17:22	



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1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-3@19
Lab ID: 1302839-15
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Arsenic	4.2	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Barium	78	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Beryllium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Cadmium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Chromium	43	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Cobalt	7.5	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Copper	16	2.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Lead	4.0	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Molybdenum	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Nickel	56	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Selenium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Silver	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Thallium	ND	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Vanadium	23	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	
Zinc	36	1.0	NA	1	B3I0306	09/19/2013	09/19/13 12:49	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:43	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 17:37	
Surrogate: 4-Bromofluorobenzene	95.2 %		54 - 150		B3I0259	09/17/2013	09/17/13 17:37	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.0	1.0	NA	1	B3I0295	09/18/2013	09/19/13 00:35	
ORO	5.1	1.0	NA	1	B3I0295	09/18/2013	09/19/13 00:35	
Surrogate: p-Terphenyl	65.6 %		33 - 147		B3I0295	09/18/2013	09/19/13 00:35	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@19

Lab ID: 1302839-15

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:37	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:37	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:37	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 17:37	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:37	
Surrogate: 4-Bromofluorobenzene	91.9 %		53 - 136		B3I0259	09/17/2013	09/17/13 17:37	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-3@29
Lab ID: 1302839-16
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Arsenic	3.5	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Barium	110	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Chromium	35	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Cobalt	6.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Copper	19	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Lead	3.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Nickel	54	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Vanadium	19	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	
Zinc	32	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:10	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:45	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 17:53	
<i>Surrogate: 4-Bromofluorobenzene</i>	90.1 %		54 - 150		B3I0259	09/17/2013	09/17/13 17:53	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	4.4	1.0	NA	1	B3I0295	09/18/2013	09/19/13 01:25	
ORO	4.8	1.0	NA	1	B3I0295	09/18/2013	09/19/13 01:25	
<i>Surrogate: p-Terphenyl</i>	63.3 %		33 - 147		B3I0295	09/18/2013	09/19/13 01:25	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-3@29

Lab ID: 1302839-16

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:53	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:53	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:53	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 17:53	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 17:53	
Surrogate: 4-Bromofluorobenzene	87.4 %		53 - 136		B3I0259	09/17/2013	09/17/13 17:53	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@1

Lab ID: 1302839-17

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
4,4'-DDE	19	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 18:39	
<i>Surrogate: Decachlorobiphenyl</i>	83.4 %		32 - 113		B3I0297	09/18/2013	09/20/13 18:39	
<i>Surrogate: Tetrachloro-m-xylene</i>	96.9 %		32 - 101		B3I0297	09/18/2013	09/20/13 18:39	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@2

Lab ID: 1302839-18

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Arsenic	6.1	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Barium	150	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Chromium	54	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Cobalt	11	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Copper	26	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Lead	6.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Nickel	70	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Vanadium	30	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	
Zinc	43	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:15	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:47	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 18:10	
<i>Surrogate: 4-Bromofluorobenzene</i>	88.5 %		54 - 150		B3I0259	09/17/2013	09/17/13 18:10	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	11	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:05	
ORO	13	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:05	
<i>Surrogate: p-Terphenyl</i>	75.3 %		33 - 147		B3I0295	09/18/2013	09/19/13 03:05	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@2
Lab ID: 1302839-18

BTEX/MTBE by EPA 8021**Analyst: DP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:10	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:10	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:10	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 18:10	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:10	
<i>Surrogate: 4-Bromofluorobenzene</i>	85.4 %		53 - 136		B3I0259	09/17/2013	09/17/13 18:10	

Organochlorine Pesticides by EPA 8081**Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
4,4'-DDE [2C]	2.9	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
4,4'-DDT [2C]	17	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 16:01	
<i>Surrogate: Decachlorobiphenyl</i>	99.2 %		32 - 113		B3I0297	09/18/2013	09/20/13 16:01	
<i>Surrogate: Tetrachloro-m-xylene</i>	93.0 %		32 - 101		B3I0297	09/18/2013	09/20/13 16:01	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@7

Lab ID: 1302839-19

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Arsenic	5.5	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Barium	120	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Chromium	52	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Cobalt	10	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Copper	22	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Lead	5.8	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Nickel	70	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Vanadium	27	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	
Zinc	43	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:20	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:49	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0259	09/17/2013	09/17/13 18:25	
<i>Surrogate: 4-Bromofluorobenzene</i>	100 %		54 - 150		B3I0259	09/17/2013	09/17/13 18:25	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	9.3	1.0	NA	1	B3I0295	09/18/2013	09/19/13 01:42	
ORO	8.1	1.0	NA	1	B3I0295	09/18/2013	09/19/13 01:42	
<i>Surrogate: p-Terphenyl</i>	67.5 %		33 - 147		B3I0295	09/18/2013	09/19/13 01:42	



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1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@7

Lab ID: 1302839-19

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:25	
Toluene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:25	
Ethylbenzene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:25	
m,p-Xylene	ND	10	NA	1	B3I0259	09/17/2013	09/17/13 18:25	
o-Xylene	ND	5.0	NA	1	B3I0259	09/17/2013	09/17/13 18:25	
Surrogate: 4-Bromofluorobenzene	97.5 %		53 - 136		B3I0259	09/17/2013	09/17/13 18:25	



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1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-4@12
Lab ID: 1302839-20
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Arsenic	4.5	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Barium	120	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Chromium	40	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Cobalt	8.2	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Copper	22	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Lead	4.8	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Nickel	53	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Vanadium	22	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	
Zinc	36	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:22	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:51	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0284	09/18/2013	09/18/13 19:00	
Surrogate: 4-Bromofluorobenzene	91.9 %		54 - 150		B3I0284	09/18/2013	09/18/13 19:00	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	11	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:39	
ORO	10	1.0	NA	1	B3I0295	09/18/2013	09/19/13 03:39	
Surrogate: p-Terphenyl	69.3 %		33 - 147		B3I0295	09/18/2013	09/19/13 03:39	



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1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@12

Lab ID: 1302839-20

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:00	
Toluene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:00	
Ethylbenzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:00	
m,p-Xylene	ND	10	NA	1	B3I0284	09/18/2013	09/18/13 19:00	
o-Xylene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:00	
Surrogate: 4-Bromofluorobenzene	89.2 %		53 - 136		B3I0284	09/18/2013	09/18/13 19:00	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-4@22
Lab ID: 1302839-21
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Arsenic	3.8	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Barium	54	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Chromium	50	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Cobalt	6.2	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Copper	15	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Lead	3.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Nickel	47	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Vanadium	20	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	
Zinc	31	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:23	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:53	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0284	09/18/2013	09/18/13 19:16	
<i>Surrogate: 4-Bromofluorobenzene</i>	70.0 %		54 - 150		B3I0284	09/18/2013	09/18/13 19:16	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.5	1.0	NA	1	B3I0295	09/18/2013	09/19/13 02:32	
ORO	5.2	1.0	NA	1	B3I0295	09/18/2013	09/19/13 02:32	
<i>Surrogate: p-Terphenyl</i>	64.8 %		33 - 147		B3I0295	09/18/2013	09/19/13 02:32	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@22

Lab ID: 1302839-21

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:16	
Toluene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:16	
Ethylbenzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:16	
m,p-Xylene	ND	10	NA	1	B3I0284	09/18/2013	09/18/13 19:16	
o-Xylene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:16	
Surrogate: 4-Bromofluorobenzene	68.1 %		53 - 136		B3I0284	09/18/2013	09/18/13 19:16	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@32

Lab ID: 1302839-22

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Arsenic	4.5	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Barium	59	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Chromium	67	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Cobalt	9.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Copper	19	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Lead	4.0	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Nickel	96	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Vanadium	23	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	
Zinc	35	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:25	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:55	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0284	09/18/2013	09/18/13 19:32	
<i>Surrogate: 4-Bromofluorobenzene</i>	92.7 %		54 - 150		B3I0284	09/18/2013	09/18/13 19:32	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	8.3	1.0	NA	1	B3I0295	09/18/2013	09/19/13 04:29	
ORO	9.3	1.0	NA	1	B3I0295	09/18/2013	09/19/13 04:29	
<i>Surrogate: p-Terphenyl</i>	64.3 %		33 - 147		B3I0295	09/18/2013	09/19/13 04:29	



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1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@32

Lab ID: 1302839-22

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:32	
Toluene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:32	
Ethylbenzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:32	
m,p-Xylene	ND	10	NA	1	B3I0284	09/18/2013	09/18/13 19:32	
o-Xylene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:32	
Surrogate: 4-Bromofluorobenzene	89.6 %		53 - 136		B3I0284	09/18/2013	09/18/13 19:32	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@39

Lab ID: 1302839-23

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Arsenic	6.1	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Barium	67	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Chromium	29	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Cobalt	4.9	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Copper	15	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Lead	4.6	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Nickel	33	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Vanadium	33	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	
Zinc	40	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:26	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 13:57	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0284	09/18/2013	09/18/13 19:48	
<i>Surrogate: 4-Bromofluorobenzene</i>	87.7 %		54 - 150		B3I0284	09/18/2013	09/18/13 19:48	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	16	1.0	NA	1	B3I0295	09/18/2013	09/19/13 04:12	
ORO	15	1.0	NA	1	B3I0295	09/18/2013	09/19/13 04:12	
<i>Surrogate: p-Terphenyl</i>	78.2 %		33 - 147		B3I0295	09/18/2013	09/19/13 04:12	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-4@39

Lab ID: 1302839-23

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:48	
Toluene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:48	
Ethylbenzene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:48	
m,p-Xylene	ND	10	NA	1	B3I0284	09/18/2013	09/18/13 19:48	
o-Xylene	ND	5.0	NA	1	B3I0284	09/18/2013	09/18/13 19:48	
Surrogate: 4-Bromofluorobenzene	84.6 %		53 - 136		B3I0284	09/18/2013	09/18/13 19:48	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-5@0.5

Lab ID: 1302839-24

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
4,4'-DDE	13	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
alpha-Chlordane	5.1	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Chlordane [2C]	88	8.5	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
gamma-Chlordane	8.9	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 18:52	
<i>Surrogate: Decachlorobiphenyl</i>	<i>67.4 %</i>		<i>32 - 113</i>		B3I0297	09/18/2013	<i>09/20/13 18:52</i>	
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>82.1 %</i>		<i>32 - 101</i>		B3I0297	09/18/2013	<i>09/20/13 18:52</i>	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-5@1.5
Lab ID: 1302839-25
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Arsenic	6.1	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Barium	180	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Chromium	55	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Cobalt	11	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Copper	26	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Lead	7.1	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Nickel	69	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Vanadium	31	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	
Zinc	44	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:28	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0326	09/19/2013	09/20/13 14:03	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/18/2013	09/18/13 23:47	
Surrogate: 4-Bromofluorobenzene	87.0 %		54 - 150		B3I0305	09/18/2013	09/18/13 23:47	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	8.9	1.0	NA	1	B3I0335	09/19/2013	09/19/13 20:33	
ORO	12	1.0	NA	1	B3I0335	09/19/2013	09/19/13 20:33	
Surrogate: p-Terphenyl	63.3 %		33 - 147		B3I0335	09/19/2013	09/19/13 20:33	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-5@1.5

Lab ID: 1302839-25

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/18/2013	09/18/13 23:47	
Toluene	ND	5.0	NA	1	B3I0305	09/18/2013	09/18/13 23:47	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/18/2013	09/18/13 23:47	
m,p-Xylene	ND	10	NA	1	B3I0305	09/18/2013	09/18/13 23:47	
o-Xylene	ND	5.0	NA	1	B3I0305	09/18/2013	09/18/13 23:47	
<i>Surrogate: 4-Bromofluorobenzene</i>	84.0 %		53 - 136		B3I0305	09/18/2013	09/18/13 23:47	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
4,4'-DDE	6.2	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 17:20	
<i>Surrogate: Decachlorobiphenyl</i>	82.9 %		32 - 113		B3I0297	09/18/2013	09/20/13 17:20	
<i>Surrogate: Tetrachloro-m-xylene</i>	85.2 %		32 - 101		B3I0297	09/18/2013	09/20/13 17:20	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-5@4
Lab ID: 1302839-26
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Arsenic	5.8	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Barium	110	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Chromium	49	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Cobalt	10	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Copper	23	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Lead	6.1	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Nickel	67	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Vanadium	27	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	
Zinc	41	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:30	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:09	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 00:03	
Surrogate: 4-Bromofluorobenzene	108 %		54 - 150		B3I0305	09/19/2013	09/19/13 00:03	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	4.7	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:07	
ORO	4.1	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:07	
Surrogate: p-Terphenyl	61.5 %		33 - 147		B3I0335	09/19/2013	09/19/13 16:07	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-5@4

Lab ID: 1302839-26

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:03	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:03	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:03	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 00:03	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:03	
Surrogate: 4-Bromofluorobenzene	104 %		53 - 136		B3I0305	09/19/2013	09/19/13 00:03	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-5@14

Lab ID: 1302839-27

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Arsenic	4.8	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Barium	79	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Chromium	52	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Cobalt	7.9	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Copper	16	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Lead	4.3	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Nickel	56	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Vanadium	25	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	
Zinc	37	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:31	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:17	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 00:19	
<i>Surrogate: 4-Bromofluorobenzene</i>	97.6 %		54 - 150		B3I0305	09/19/2013	09/19/13 00:19	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	3.4	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:04	
ORO	3.6	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:04	
<i>Surrogate: p-Terphenyl</i>	58.7 %		33 - 147		B3I0335	09/19/2013	09/19/13 18:04	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-5@14

Lab ID: 1302839-27

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:19	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:19	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:19	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 00:19	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:19	
Surrogate: 4-Bromofluorobenzene	94.3 %		53 - 136		B3I0305	09/19/2013	09/19/13 00:19	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-5@24
Lab ID: 1302839-28
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Arsenic	2.2	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Barium	51	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Chromium	17	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Cobalt	4.6	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Copper	14	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Lead	2.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Nickel	29	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Vanadium	14	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	
Zinc	24	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:33	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:19	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 00:35	
Surrogate: 4-Bromofluorobenzene	103 %		54 - 150		B3I0305	09/19/2013	09/19/13 00:35	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.0	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:53	
ORO	5.5	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:53	
Surrogate: p-Terphenyl	83.9 %		33 - 147		B3I0335	09/19/2013	09/19/13 18:53	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-5@24

Lab ID: 1302839-28

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:35	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:35	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:35	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 00:35	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:35	
Surrogate: 4-Bromofluorobenzene	98.8 %		53 - 136		B3I0305	09/19/2013	09/19/13 00:35	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-5@34
Lab ID: 1302839-29
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Arsenic	4.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Barium	52	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Chromium	24	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Cobalt	5.8	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Copper	18	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Lead	3.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Nickel	43	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Vanadium	21	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	
Zinc	31	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:34	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:21	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 00:51	
Surrogate: 4-Bromofluorobenzene	95.4 %		54 - 150		B3I0305	09/19/2013	09/19/13 00:51	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	3.9	1.0	NA	1	B3I0335	09/19/2013	09/19/13 20:17	
ORO	4.3	1.0	NA	1	B3I0335	09/19/2013	09/19/13 20:17	
Surrogate: p-Terphenyl	61.4 %		33 - 147		B3I0335	09/19/2013	09/19/13 20:17	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-5@34

Lab ID: 1302839-29

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:51	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:51	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:51	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 00:51	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 00:51	
Surrogate: 4-Bromofluorobenzene	92.4 %		53 - 136		B3I0305	09/19/2013	09/19/13 00:51	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@1

Lab ID: 1302839-30

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 16:14	
<i>Surrogate: Decachlorobiphenyl</i>	92.7 %		32 - 113		B3I0297	09/18/2013	09/20/13 16:14	
<i>Surrogate: Tetrachloro-m-xylene</i>	78.4 %		32 - 101		B3I0297	09/18/2013	09/20/13 16:14	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@2

Lab ID: 1302839-31

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Arsenic	6.2	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Barium	130	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Chromium	54	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Cobalt	12	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Copper	30	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Lead	12	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Nickel	63	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Vanadium	42	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	
Zinc	52	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:40	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:27	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 01:07	
<i>Surrogate: 4-Bromofluorobenzene</i>	96.0 %		54 - 150		B3I0305	09/19/2013	09/19/13 01:07	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	7.3	0.50	NA	1	B3I0335	09/19/2013	09/19/13 21:23	
ORO	18	0.50	NA	1	B3I0335	09/19/2013	09/19/13 21:23	
<i>Surrogate: p-Terphenyl</i>	58.0 %		33 - 147		B3I0335	09/19/2013	09/19/13 21:23	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@2
Lab ID: 1302839-31

BTEX/MTBE by EPA 8021**Analyst: DP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:07	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:07	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:07	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 01:07	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:07	
<i>Surrogate: 4-Bromofluorobenzene</i>	92.9 %		53 - 136		B3I0305	09/19/2013	09/19/13 01:07	

Organochlorine Pesticides by EPA 8081**Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	25	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
4,4'-DDE [2C]	150	20	NA	10	B3I0297	09/18/2013	09/20/13 18:13	
4,4'-DDT [2C]	2.3	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 18:00	
<i>Surrogate: Decachlorobiphenyl</i>	88.1 %		32 - 113		B3I0297	09/18/2013	09/20/13 18:13	
<i>Surrogate: Decachlorobiphenyl</i>	89.6 %		32 - 113		B3I0297	09/18/2013	09/20/13 18:00	
<i>Surrogate: Tetrachloro-m-xylene</i>	91.9 %		32 - 101		B3I0297	09/18/2013	09/20/13 18:00	
<i>Surrogate: Tetrachloro-m-xylene</i>	81.8 %		32 - 101		B3I0297	09/18/2013	09/20/13 18:13	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-6@7
Lab ID: 1302839-32
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Arsenic	6.4	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Barium	110	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Chromium	54	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Cobalt	11	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Copper	26	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Lead	6.6	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Nickel	70	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Vanadium	31	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	
Zinc	45	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:41	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:29	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 01:23	
Surrogate: 4-Bromofluorobenzene	93.3 %		54 - 150		B3I0305	09/19/2013	09/19/13 01:23	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.5	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:37	
ORO	5.1	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:37	
Surrogate: p-Terphenyl	65.4 %		33 - 147		B3I0335	09/19/2013	09/19/13 18:37	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@7

Lab ID: 1302839-32

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:23	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:23	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:23	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 01:23	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:23	
Surrogate: 4-Bromofluorobenzene	90.3 %		53 - 136		B3I0305	09/19/2013	09/19/13 01:23	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@16-20
Lab ID: 1302839-33
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Arsenic	3.2	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Barium	70	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Chromium	34	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Cobalt	5.3	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Copper	15	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Lead	3.6	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Molybdenum	1.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Nickel	39	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Vanadium	20	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	
Zinc	31	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:43	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:31	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 01:39	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>102 %</i>		<i>54 - 150</i>		B3I0305	09/19/2013	<i>09/19/13 01:39</i>	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	25	1.0	NA	2	B3I0335	09/19/2013	09/19/13 21:40	
ORO	50	1.0	NA	2	B3I0335	09/19/2013	09/19/13 21:40	
<i>Surrogate: p-Terphenyl</i>	<i>91.6 %</i>		<i>33 - 147</i>		B3I0335	09/19/2013	<i>09/19/13 21:40</i>	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@16-20

Lab ID: 1302839-33

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:39	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:39	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:39	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 01:39	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:39	
<i>Surrogate: 4-Bromofluorobenzene</i>	98.0 %		53 - 136		B3I0305	09/19/2013	09/19/13 01:39	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@27

Lab ID: 1302839-34

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Arsenic	4.2	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Barium	58	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Chromium	75	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Cobalt	7.3	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Copper	19	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Lead	4.9	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Nickel	61	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Vanadium	23	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	
Zinc	37	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:44	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:33	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 01:55	
<i>Surrogate: 4-Bromofluorobenzene</i>	92.4 %		54 - 150		B3I0305	09/19/2013	09/19/13 01:55	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.2	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:23	
ORO	5.0	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:23	
<i>Surrogate: p-Terphenyl</i>	82.9 %		33 - 147		B3I0335	09/19/2013	09/19/13 16:23	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-6@27

Lab ID: 1302839-34

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:55	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:55	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:55	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 01:55	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 01:55	
<i>Surrogate: 4-Bromofluorobenzene</i>	88.8 %		53 - 136		B3I0305	09/19/2013	09/19/13 01:55	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@0.5
Lab ID: 1302839-35
Organochlorine Pesticides by EPA 8081
Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 16:28	
<i>Surrogate: Decachlorobiphenyl</i>	76.2 %		32 - 113		B3I0297	09/18/2013	09/20/13 16:28	
<i>Surrogate: Tetrachloro-m-xylene</i>	76.1 %		32 - 101		B3I0297	09/18/2013	09/20/13 16:28	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@1.5

Lab ID: 1302839-36

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Arsenic	6.4	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Barium	160	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Chromium	59	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Cobalt	12	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Copper	27	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Lead	7.1	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Nickel	75	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Vanadium	32	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	
Zinc	44	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:46	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:35	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 02:11	
<i>Surrogate: 4-Bromofluorobenzene</i>	90.1 %		54 - 150		B3I0305	09/19/2013	09/19/13 02:11	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	8.3	1.0	NA	1	B3I0335	09/19/2013	09/19/13 20:00	
ORO	7.1	1.0	NA	1	B3I0335	09/19/2013	09/19/13 20:00	
<i>Surrogate: p-Terphenyl</i>	74.6 %		33 - 147		B3I0335	09/19/2013	09/19/13 20:00	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@1.5
Lab ID: 1302839-36

BTEX/MTBE by EPA 8021**Analyst: DP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:11	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:11	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:11	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 02:11	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:11	
<i>Surrogate: 4-Bromofluorobenzene</i>	86.9 %		53 - 136		B3I0305	09/19/2013	09/19/13 02:11	

Organochlorine Pesticides by EPA 8081**Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 16:41	
<i>Surrogate: Decachlorobiphenyl</i>	93.2 %		32 - 113		B3I0297	09/18/2013	09/20/13 16:41	
<i>Surrogate: Tetrachloro-m-xylene</i>	91.3 %		32 - 101		B3I0297	09/18/2013	09/20/13 16:41	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@4
Lab ID: 1302839-37
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Arsenic	6.0	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Barium	190	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Chromium	55	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Cobalt	11	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Copper	25	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Lead	6.8	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Nickel	69	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Vanadium	30	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	
Zinc	41	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:48	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.29	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:37	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 02:27	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.0 %		54 - 150		B3I0305	09/19/2013	09/19/13 02:27	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	3.8	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:40	
ORO	3.8	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:40	
<i>Surrogate: p-Terphenyl</i>	56.1 %		33 - 147		B3I0335	09/19/2013	09/19/13 16:40	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@4

Lab ID: 1302839-37

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:27	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:27	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:27	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 02:27	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:27	
<i>Surrogate: 4-Bromofluorobenzene</i>	94.6 %		53 - 136		B3I0305	09/19/2013	09/19/13 02:27	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@9

Lab ID: 1302839-38

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Arsenic	5.9	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Barium	95	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Chromium	49	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Cobalt	9.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Copper	22	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Lead	5.7	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Nickel	64	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Vanadium	27	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	
Zinc	42	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:49	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:39	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 02:43	
Surrogate: 4-Bromofluorobenzene	90.2 %		54 - 150		B3I0305	09/19/2013	09/19/13 02:43	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.5	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:57	
ORO	5.0	1.0	NA	1	B3I0335	09/19/2013	09/19/13 16:57	
Surrogate: p-Terphenyl	73.5 %		33 - 147		B3I0335	09/19/2013	09/19/13 16:57	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@9

Lab ID: 1302839-38

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:43	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:43	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:43	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 02:43	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:43	
<i>Surrogate: 4-Bromofluorobenzene</i>	86.6 %		53 - 136		B3I0305	09/19/2013	09/19/13 02:43	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-7@19
Lab ID: 1302839-39
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Arsenic	3.5	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Barium	92	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Beryllium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Cadmium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Chromium	40	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Cobalt	4.3	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Copper	12	2.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Lead	2.1	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Molybdenum	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Nickel	32	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Selenium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Silver	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Thallium	ND	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Vanadium	41	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	
Zinc	28	1.0	NA	1	B3I0308	09/19/2013	09/19/13 13:51	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:41	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 02:59	
Surrogate: 4-Bromofluorobenzene	95.3 %		54 - 150		B3I0305	09/19/2013	09/19/13 02:59	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	3.9	1.0	NA	1	B3I0335	09/19/2013	09/19/13 17:14	
ORO	3.9	1.0	NA	1	B3I0335	09/19/2013	09/19/13 17:14	
Surrogate: p-Terphenyl	63.6 %		33 - 147		B3I0335	09/19/2013	09/19/13 17:14	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@19

Lab ID: 1302839-39

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:59	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:59	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:59	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 02:59	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 02:59	
Surrogate: 4-Bromofluorobenzene	91.4 %		53 - 136		B3I0305	09/19/2013	09/19/13 02:59	



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1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-7@24
Lab ID: 1302839-40
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Arsenic	4.3	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Barium	67	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Beryllium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Cadmium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Chromium	37	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Cobalt	6.4	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Copper	15	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Lead	4.3	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Molybdenum	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Nickel	52	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Selenium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Silver	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Thallium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Vanadium	19	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	
Zinc	29	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:35	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:43	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0347	09/20/2013	09/20/13 11:31	
Surrogate: 4-Bromofluorobenzene	111 %		54 - 150		B3I0347	09/20/2013	09/20/13 11:31	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	4.5	1.0	NA	1	B3I0335	09/19/2013	09/19/13 17:30	
ORO	4.3	1.0	NA	1	B3I0335	09/19/2013	09/19/13 17:30	
Surrogate: p-Terphenyl	74.5 %		33 - 147		B3I0335	09/19/2013	09/19/13 17:30	



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Fugro West, Inc.

1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@24

Lab ID: 1302839-40

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0347	09/20/2013	09/20/13 11:31	
Toluene	ND	5.0	NA	1	B3I0347	09/20/2013	09/20/13 11:31	
Ethylbenzene	ND	5.0	NA	1	B3I0347	09/20/2013	09/20/13 11:31	
m,p-Xylene	ND	10	NA	1	B3I0347	09/20/2013	09/20/13 11:31	
o-Xylene	ND	5.0	NA	1	B3I0347	09/20/2013	09/20/13 11:31	
Surrogate: 4-Bromofluorobenzene	107 %		53 - 136		B3I0347	09/20/2013	09/20/13 11:31	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-7@29
Lab ID: 1302839-41
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Arsenic	4.5	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Barium	56	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Beryllium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Cadmium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Chromium	41	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Cobalt	7.2	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Copper	19	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Lead	4.5	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Molybdenum	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Nickel	59	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Selenium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Silver	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Thallium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Vanadium	20	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	
Zinc	34	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:40	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:44	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 03:31	
<i>Surrogate: 4-Bromofluorobenzene</i>	91.0 %		54 - 150		B3I0305	09/19/2013	09/19/13 03:31	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	5.1	1.0	NA	1	B3I0335	09/19/2013	09/19/13 19:10	
ORO	6.1	1.0	NA	1	B3I0335	09/19/2013	09/19/13 19:10	
<i>Surrogate: p-Terphenyl</i>	71.0 %		33 - 147		B3I0335	09/19/2013	09/19/13 19:10	



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Fugro West, Inc.

1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-7@29

Lab ID: 1302839-41

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:31	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:31	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:31	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 03:31	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:31	
Surrogate: 4-Bromofluorobenzene	87.4 %		53 - 136		B3I0305	09/19/2013	09/19/13 03:31	



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1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@1

Lab ID: 1302839-42

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD [2C]	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
4,4'-DDE	15	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
4,4'-DDT [2C]	12	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 16:54	
<i>Surrogate: Decachlorobiphenyl</i>	86.6 %		32 - 113		B3I0297	09/18/2013	09/20/13 16:54	
<i>Surrogate: Tetrachloro-m-xylene</i>	82.6 %		32 - 101		B3I0297	09/18/2013	09/20/13 16:54	



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Fugro West, Inc.

1000 Broadway, Suite 440
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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013
Client Sample ID B-8@2
Lab ID: 1302839-43
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Arsenic	6.2	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Barium	170	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Beryllium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Cadmium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Chromium	57	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Cobalt	12	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Copper	28	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Lead	7.1	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Molybdenum	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Nickel	74	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Selenium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Silver	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Thallium	ND	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Vanadium	31	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	
Zinc	45	0.99	NA	1	B3I0328	09/19/2013	09/19/13 16:41	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:51	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 03:47	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>104 %</i>		<i>54 - 150</i>		B3I0305	09/19/2013	<i>09/19/13 03:47</i>	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	4.5	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:20	
ORO	4.7	1.0	NA	1	B3I0335	09/19/2013	09/19/13 18:20	
<i>Surrogate: p-Terphenyl</i>	<i>68.3 %</i>		<i>33 - 147</i>		B3I0335	09/19/2013	<i>09/19/13 18:20</i>	



Certificate of Analysis

Fugro West, Inc.

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Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@2
Lab ID: 1302839-43

BTEX/MTBE by EPA 8021**Analyst: DP**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:47	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:47	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:47	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 03:47	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 03:47	
<i>Surrogate: 4-Bromofluorobenzene</i>	99.4 %		53 - 136		B3I0305	09/19/2013	09/19/13 03:47	

Organochlorine Pesticides by EPA 8081**Analyst: PIL**

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
4,4'-DDE	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
4,4'-DDT	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Aldrin	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
alpha-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
alpha-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
beta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Chlordane	ND	8.5	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
delta-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Dieldrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Endosulfan I	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Endosulfan II	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Endosulfan sulfate	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Endrin	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Endrin aldehyde	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Endrin ketone	ND	2.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
gamma-BHC	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
gamma-Chlordane	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Heptachlor	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Heptachlor epoxide	ND	1.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Methoxychlor	ND	5.0	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
Toxaphene	ND	50	NA	1	B3I0297	09/18/2013	09/20/13 17:07	
<i>Surrogate: Decachlorobiphenyl</i>	100 %		32 - 113		B3I0297	09/18/2013	09/20/13 17:07	
<i>Surrogate: Tetrachloro-m-xylene</i>	101 %		32 - 101		B3I0297	09/18/2013	09/20/13 17:07	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@7
Lab ID: 1302839-44
Title 22 Metals by ICP-AES EPA 6010B
Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Arsenic	6.1	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Barium	150	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Beryllium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Cadmium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Chromium	58	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Cobalt	12	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Copper	27	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Lead	6.8	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Molybdenum	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Nickel	77	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Selenium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Silver	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Thallium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Vanadium	30	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	
Zinc	47	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:43	

Mercury by AA (Cold Vapor) EPA 7471A
Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:53	

Gasoline Range Organics by EPA 8015B (Modified)
Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 04:03	
Surrogate: 4-Bromofluorobenzene	107 %		54 - 150		B3I0305	09/19/2013	09/19/13 04:03	

Diesel Range Organics by EPA 8015B (SGT)
Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	3.5	1.0	NA	1	B3I0335	09/19/2013	09/19/13 17:47	
ORO	3.3	1.0	NA	1	B3I0335	09/19/2013	09/19/13 17:47	
Surrogate: p-Terphenyl	59.5 %		33 - 147		B3I0335	09/19/2013	09/19/13 17:47	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@7

Lab ID: 1302839-44

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:03	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:03	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:03	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 04:03	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:03	
Surrogate: 4-Bromofluorobenzene	102 %		53 - 136		B3I0305	09/19/2013	09/19/13 04:03	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@12

Lab ID: 1302839-45

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Arsenic	5.4	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Barium	110	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Beryllium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Cadmium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Chromium	53	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Cobalt	9.3	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Copper	20	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Lead	5.3	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Molybdenum	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Nickel	68	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Selenium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Silver	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Thallium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Vanadium	26	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	
Zinc	42	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:45	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:55	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 04:19	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>101 %</i>		<i>54 - 150</i>		B3I0305	09/19/2013	<i>09/19/13 04:19</i>	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	7.4	1.0	NA	1	B3I0335	09/19/2013	09/19/13 19:43	
ORO	6.7	1.0	NA	1	B3I0335	09/19/2013	09/19/13 19:43	
<i>Surrogate: p-Terphenyl</i>	<i>70.3 %</i>		<i>33 - 147</i>		B3I0335	09/19/2013	<i>09/19/13 19:43</i>	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@12

Lab ID: 1302839-45

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:19	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:19	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:19	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 04:19	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:19	
Surrogate: 4-Bromofluorobenzene	96.8 %		53 - 136		B3I0305	09/19/2013	09/19/13 04:19	



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@22

Lab ID: 1302839-46

Title 22 Metals by ICP-AES EPA 6010B

Analyst: CB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Arsenic	4.6	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Barium	94	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Beryllium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Cadmium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Chromium	42	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Cobalt	6.3	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Copper	18	2.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Lead	4.5	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Molybdenum	3.8	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Nickel	48	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Selenium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Silver	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Thallium	ND	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Vanadium	22	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	
Zinc	35	1.0	NA	1	B3I0328	09/19/2013	09/19/13 16:46	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B3I0327	09/19/2013	09/20/13 14:56	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B3I0305	09/19/2013	09/19/13 04:35	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>101 %</i>		<i>54 - 150</i>		B3I0305	09/19/2013	<i>09/19/13 04:35</i>	

Diesel Range Organics by EPA 8015B (SGT)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
DRO	4.6	1.0	NA	1	B3I0335	09/19/2013	09/19/13 19:27	
ORO	4.9	1.0	NA	1	B3I0335	09/19/2013	09/19/13 19:27	
<i>Surrogate: p-Terphenyl</i>	<i>63.5 %</i>		<i>33 - 147</i>		B3I0335	09/19/2013	<i>09/19/13 19:27</i>	



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Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Client Sample ID B-8@22

Lab ID: 1302839-46

BTEX/MTBE by EPA 8021

Analyst: DP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:35	
Toluene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:35	
Ethylbenzene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:35	
m,p-Xylene	ND	10	NA	1	B3I0305	09/19/2013	09/19/13 04:35	
o-Xylene	ND	5.0	NA	1	B3I0305	09/19/2013	09/19/13 04:35	
Surrogate: 4-Bromofluorobenzene	97.1 %		53 - 136		B3I0305	09/19/2013	09/19/13 04:35	



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1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0306 - EPA 3050B
Blank (B3I0306-BLK1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	ND	2.0			NR				
Arsenic	ND	1.0			NR				
Barium	ND	1.0			NR				
Beryllium	ND	1.0			NR				
Cadmium	ND	1.0			NR				
Chromium	ND	1.0			NR				
Cobalt	ND	1.0			NR				
Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				

LCS (B3I0306-BS1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	50.0286	2.0	50.0000	100	80 - 120
Arsenic	50.1025	1.0	50.0000	100	80 - 120
Barium	53.3865	1.0	50.0000	107	80 - 120
Beryllium	53.0246	1.0	50.0000	106	80 - 120
Cadmium	51.1314	1.0	50.0000	102	80 - 120
Chromium	54.1239	1.0	50.0000	108	80 - 120
Cobalt	52.3630	1.0	50.0000	105	80 - 120
Copper	52.7036	2.0	50.0000	105	80 - 120
Lead	50.9615	1.0	50.0000	102	80 - 120
Molybdenum	53.4580	1.0	50.0000	107	80 - 120
Nickel	50.9954	1.0	50.0000	102	80 - 120
Selenium	47.5182	1.0	50.0000	95.0	80 - 120
Silver	49.9304	1.0	50.0000	99.9	80 - 120
Thallium	52.2303	1.0	50.0000	104	80 - 120
Vanadium	52.2061	1.0	50.0000	104	80 - 120
Zinc	48.6916	1.0	50.0000	97.4	80 - 120

Matrix Spike (B3I0306-MS1)

Source: 1302839-02

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	84.8428	2.0	125.000	0.233631	67.7	21 - 109
Arsenic	113.078	1.0	125.000	6.07464	85.6	55 - 102
Barium	299.386	1.0	125.000	184.804	91.7	40 - 130
Beryllium	110.593	1.0	125.000	0.370980	88.2	60 - 104



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0306 - EPA 3050B (continued)
Matrix Spike (B3I0306-MS1) - Continued
Source: 1302839-02

Prepared: 9/19/2013 Analyzed: 9/19/2013

Cadmium	100.978	1.0	125.000	ND	80.8	52 - 100			
Chromium	167.594	1.0	125.000	55.2884	89.8	53 - 113			
Cobalt	114.166	1.0	125.000	11.1350	82.4	53 - 104			
Copper	142.320	2.0	125.000	25.6173	93.4	51 - 122			
Lead	108.788	1.0	125.000	6.69842	81.7	51 - 106			
Molybdenum	109.096	1.0	125.000	0.389183	87.0	55 - 103			
Nickel	171.670	1.0	125.000	69.1303	82.0	48 - 112			
Selenium	102.002	1.0	125.000	0.925718	80.9	53 - 104			
Silver	112.465	1.0	125.000	ND	90.0	61 - 109			
Thallium	98.8136	1.0	125.000	ND	79.1	44 - 103			
Vanadium	139.357	1.0	125.000	30.9110	86.8	55 - 115			
Zinc	145.666	1.0	125.000	43.5028	81.7	24 - 130			

Matrix Spike Dup (B3I0306-MSD1)
Source: 1302839-02

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	84.6584	2.0	125.000	0.233631	67.5	21 - 109	0.218	20	
Arsenic	113.235	1.0	125.000	6.07464	85.7	55 - 102	0.139	20	
Barium	295.843	1.0	125.000	184.804	88.8	40 - 130	1.19	20	
Beryllium	111.298	1.0	125.000	0.370980	88.7	60 - 104	0.636	20	
Cadmium	101.790	1.0	125.000	ND	81.4	52 - 100	0.801	20	
Chromium	166.824	1.0	125.000	55.2884	89.2	53 - 113	0.461	20	
Cobalt	114.639	1.0	125.000	11.1350	82.8	53 - 104	0.414	20	
Copper	142.540	2.0	125.000	25.6173	93.5	51 - 122	0.155	20	
Lead	109.342	1.0	125.000	6.69842	82.1	51 - 106	0.507	20	
Molybdenum	109.088	1.0	125.000	0.389183	87.0	55 - 103	0.00641	20	
Nickel	171.633	1.0	125.000	69.1303	82.0	48 - 112	0.0221	20	
Selenium	104.079	1.0	125.000	0.925718	82.5	53 - 104	2.02	20	
Silver	112.225	1.0	125.000	ND	89.8	61 - 109	0.213	20	
Thallium	99.1564	1.0	125.000	ND	79.3	44 - 103	0.346	20	
Vanadium	139.402	1.0	125.000	30.9110	86.8	55 - 115	0.0326	20	
Zinc	146.231	1.0	125.000	43.5028	82.2	24 - 130	0.387	20	

Batch B3I0308 - EPA 3050B
Blank (B3I0308-BLK1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	ND	2.0	NR
Arsenic	ND	1.0	NR
Barium	ND	1.0	NR
Beryllium	ND	1.0	NR
Cadmium	ND	1.0	NR
Chromium	ND	1.0	NR
Cobalt	ND	1.0	NR



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Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0308 - EPA 3050B (continued)
Blank (B3I0308-BLK1) - Continued

Prepared: 9/19/2013 Analyzed: 9/19/2013

Copper	ND	2.0			NR				
Lead	ND	1.0			NR				
Molybdenum	ND	1.0			NR				
Nickel	ND	1.0			NR				
Selenium	ND	1.0			NR				
Silver	ND	1.0			NR				
Thallium	ND	1.0			NR				
Vanadium	ND	1.0			NR				
Zinc	ND	1.0			NR				

LCS (B3I0308-BS1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	49.2382	2.0	50.0000		98.5	80 - 120			
Arsenic	49.0993	1.0	50.0000		98.2	80 - 120			
Barium	52.8315	1.0	50.0000		106	80 - 120			
Beryllium	52.8093	1.0	50.0000		106	80 - 120			
Cadmium	50.0708	1.0	50.0000		100	80 - 120			
Chromium	53.2594	1.0	50.0000		107	80 - 120			
Cobalt	51.5238	1.0	50.0000		103	80 - 120			
Copper	51.7352	2.0	50.0000		103	80 - 120			
Lead	50.2212	1.0	50.0000		100	80 - 120			
Molybdenum	52.5732	1.0	50.0000		105	80 - 120			
Nickel	50.2158	1.0	50.0000		100	80 - 120			
Selenium	46.7428	1.0	50.0000		93.5	80 - 120			
Silver	49.1050	1.0	50.0000		98.2	80 - 120			
Thallium	51.4100	1.0	50.0000		103	80 - 120			
Vanadium	51.9648	1.0	50.0000		104	80 - 120			
Zinc	47.4618	1.0	50.0000		94.9	80 - 120			

Matrix Spike (B3I0308-MS1)

Source: 1302839-16

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	101.228	2.0	125.000	ND	81.0	21 - 109			
Arsenic	119.443	1.0	125.000	3.52020	92.7	55 - 102			
Barium	221.400	1.0	125.000	106.765	91.7	40 - 130			
Beryllium	119.136	1.0	125.000	0.161940	95.2	60 - 104			
Cadmium	111.691	1.0	125.000	ND	89.4	52 - 100			
Chromium	147.759	1.0	125.000	35.2441	90.0	53 - 113			
Cobalt	120.116	1.0	125.000	6.74979	90.7	53 - 104			
Copper	144.360	2.0	125.000	18.5768	101	51 - 122			
Lead	116.911	1.0	125.000	3.73836	90.5	51 - 106			
Molybdenum	120.885	1.0	125.000	0.618527	96.2	55 - 103			
Nickel	154.773	1.0	125.000	54.4455	80.3	48 - 112			
Selenium	111.581	1.0	125.000	ND	89.3	53 - 104			
Silver	120.087	1.0	125.000	ND	96.1	61 - 109			



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0308 - EPA 3050B (continued)

Matrix Spike (B3I0308-MS1) - Continued **Source: 1302839-16** Prepared: 9/19/2013 Analyzed: 9/19/2013

Thallium	109.624	1.0	125.000	ND	87.7	44 - 103
Vanadium	137.434	1.0	125.000	18.7679	94.9	55 - 115
Zinc	141.385	1.0	125.000	31.8744	87.6	24 - 130

Matrix Spike Dup (B3I0308-MSD1) **Source: 1302839-16** Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	106.033	2.0	125.000	ND	84.8	21 - 109	4.64	20
Arsenic	123.479	1.0	125.000	3.52020	96.0	55 - 102	3.32	20
Barium	189.828	1.0	125.000	106.765	66.5	40 - 130	15.4	20
Beryllium	125.193	1.0	125.000	0.161940	100	60 - 104	4.96	20
Cadmium	116.538	1.0	125.000	ND	93.2	52 - 100	4.25	20
Chromium	151.664	1.0	125.000	35.2441	93.1	53 - 113	2.61	20
Cobalt	124.740	1.0	125.000	6.74979	94.4	53 - 104	3.78	20
Copper	148.228	2.0	125.000	18.5768	104	51 - 122	2.64	20
Lead	120.069	1.0	125.000	3.73836	93.1	51 - 106	2.67	20
Molybdenum	125.118	1.0	125.000	0.618527	99.6	55 - 103	3.44	20
Nickel	156.784	1.0	125.000	54.4455	81.9	48 - 112	1.29	20
Selenium	115.465	1.0	125.000	ND	92.4	53 - 104	3.42	20
Silver	123.704	1.0	125.000	ND	99.0	61 - 109	2.97	20
Thallium	113.761	1.0	125.000	ND	91.0	44 - 103	3.70	20
Vanadium	139.563	1.0	125.000	18.7679	96.6	55 - 115	1.54	20
Zinc	145.190	1.0	125.000	31.8744	90.7	24 - 130	2.66	20

Batch B3I0328 - EPA 3050B

Blank (B3I0328-BLK1) Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	ND	2.0	NR
Arsenic	ND	1.0	NR
Barium	ND	1.0	NR
Beryllium	ND	1.0	NR
Cadmium	ND	1.0	NR
Chromium	ND	1.0	NR
Cobalt	ND	1.0	NR
Copper	ND	2.0	NR
Lead	ND	1.0	NR
Molybdenum	ND	1.0	NR
Nickel	ND	1.0	NR
Selenium	ND	1.0	NR
Silver	ND	1.0	NR
Thallium	ND	1.0	NR
Vanadium	ND	1.0	NR
Zinc	ND	1.0	NR



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0328 - EPA 3050B (continued)
LCS (B3I0328-BS1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	50.8407	2.0	50.0000		102	80 - 120
Arsenic	50.5026	1.0	50.0000		101	80 - 120
Barium	55.6322	1.0	50.0000		111	80 - 120
Beryllium	53.7814	1.0	50.0000		108	80 - 120
Cadmium	52.2594	1.0	50.0000		105	80 - 120
Chromium	55.2297	1.0	50.0000		110	80 - 120
Cobalt	52.7476	1.0	50.0000		105	80 - 120
Copper	52.0360	2.0	50.0000		104	80 - 120
Lead	49.4240	1.0	50.0000		98.8	80 - 120
Molybdenum	50.3190	1.0	50.0000		101	80 - 120
Nickel	51.3556	1.0	50.0000		103	80 - 120
Selenium	47.7553	1.0	50.0000		95.5	80 - 120
Silver	50.9286	1.0	50.0000		102	80 - 120
Thallium	52.5983	1.0	50.0000		105	80 - 120
Vanadium	55.1410	1.0	50.0000		110	80 - 120
Zinc	48.6408	1.0	50.0000		97.3	80 - 120

Matrix Spike (B3I0328-MS1)
Source: 1302839-40

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	104.273	2.0	125.000	ND	83.4	21 - 109
Arsenic	120.686	1.0	125.000	4.29971	93.1	55 - 102
Barium	187.536	1.0	125.000	67.2520	96.2	40 - 130
Beryllium	119.432	1.0	125.000	0.158455	95.4	60 - 104
Cadmium	108.817	1.0	125.000	ND	87.1	52 - 100
Chromium	163.385	1.0	125.000	36.9751	101	53 - 113
Cobalt	119.640	1.0	125.000	6.36484	90.6	53 - 104
Copper	141.775	2.0	125.000	14.5746	102	51 - 122
Lead	115.440	1.0	125.000	4.29335	88.9	51 - 106
Molybdenum	119.506	1.0	125.000	0.345089	95.3	55 - 103
Nickel	174.130	1.0	125.000	52.4423	97.4	48 - 112
Selenium	110.375	1.0	125.000	ND	88.3	53 - 104
Silver	118.952	1.0	125.000	ND	95.2	61 - 109
Thallium	107.482	1.0	125.000	ND	86.0	44 - 103
Vanadium	137.854	1.0	125.000	18.7197	95.3	55 - 115
Zinc	138.642	1.0	125.000	28.5892	88.0	24 - 130

Matrix Spike Dup (B3I0328-MSD1)
Source: 1302839-40

Prepared: 9/19/2013 Analyzed: 9/19/2013

Antimony	101.656	2.0	125.000	ND	81.3	21 - 109	2.54	20
Arsenic	116.221	1.0	125.000	4.29971	89.5	55 - 102	3.77	20
Barium	187.333	1.0	125.000	67.2520	96.1	40 - 130	0.108	20
Beryllium	115.897	1.0	125.000	0.158455	92.6	60 - 104	3.00	20
Cadmium	106.570	1.0	125.000	ND	85.3	52 - 100	2.09	20
Chromium	151.840	1.0	125.000	36.9751	91.9	53 - 113	7.32	20



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0328 - EPA 3050B (continued)

Matrix Spike Dup (B3I0328-MSD1) - Continued **Source: 1302839-40** Prepared: 9/19/2013 Analyzed: 9/19/2013

Cobalt	115.726	1.0	125.000	6.36484	87.5	53 - 104	3.33	20
Copper	137.445	2.0	125.000	14.5746	98.3	51 - 122	3.10	20
Lead	114.650	1.0	125.000	4.29335	88.3	51 - 106	0.688	20
Molybdenum	107.489	1.0	125.000	0.345089	85.7	55 - 103	10.6	20
Nickel	162.333	1.0	125.000	52.4423	87.9	48 - 112	7.01	20
Selenium	107.244	1.0	125.000	ND	85.8	53 - 104	2.88	20
Silver	114.948	1.0	125.000	ND	92.0	61 - 109	3.42	20
Thallium	106.193	1.0	125.000	ND	85.0	44 - 103	1.21	20
Vanadium	135.260	1.0	125.000	18.7197	93.2	55 - 115	1.90	20
Zinc	137.705	1.0	125.000	28.5892	87.3	24 - 130	0.678	20



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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0326 - EPA 7471
Blank (B3I0326-BLK1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	ND	0.10	NR
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LCS (B3I0326-BS1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.828604	0.10	0.833333	99.4	80 - 120
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Matrix Spike (B3I0326-MS1)

Source: 1302839-02 Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.855889	0.10	0.833333	0.023671	99.9	70 - 130
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Matrix Spike Dup (B3I0326-MSD1)

Source: 1302839-02 Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.866122	0.10	0.833333	0.023671	101	70 - 130	1.19	20
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Post Spike (B3I0326-PS1)

Source: 1302839-02 Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.005692	5.00000E-3	0.000284	108	85 - 115
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Batch B3I0327 - EPA 7471
Blank (B3I0327-BLK1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	ND	0.10	NR
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LCS (B3I0327-BS1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.836468	0.10	0.833333	100	80 - 120
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Matrix Spike (B3I0327-MS1)

Source: 1302839-26 Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.892282	0.10	0.833333	0.052999	101	70 - 130
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Matrix Spike Dup (B3I0327-MSD1)

Source: 1302839-26 Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.907958	0.10	0.833333	0.052999	103	70 - 130	1.74	20
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Post Spike (B3I0327-PS1)

Source: 1302839-26 Prepared: 9/19/2013 Analyzed: 9/20/2013

Mercury	0.005793	5.00000E-3	0.000636	103	85 - 115
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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0259 - GCVOAS

Blank (B3I0259-BLK1)

Prepared: 9/17/2013 Analyzed: 9/17/2013

Gasoline Range Organics	ND	1.0			NR				
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Surrogate: 4-Bromofluorobenzene

0.1650 0.200000 82.5 54 - 150

LCS (B3I0259-BS1)

Prepared: 9/17/2013 Analyzed: 9/17/2013

Gasoline Range Organics	5.18300	1.0	5.00000		104	70 - 130			
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Surrogate: 4-Bromofluorobenzene

0.2282 0.200000 114 54 - 150

LCS Dup (B3I0259-BSD1)

Prepared: 9/17/2013 Analyzed: 9/17/2013

Gasoline Range Organics	5.17300	1.0	5.00000		103	70 - 130	0.193	20	
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Surrogate: 4-Bromofluorobenzene

0.1511 0.200000 75.5 54 - 150

Matrix Spike (B3I0259-MS1)

Source: 1302839-02 Prepared: 9/17/2013 Analyzed: 9/17/2013

Gasoline Range Organics	4.41000	1.0	5.00000	ND	88.2	42 - 125			
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Surrogate: 4-Bromofluorobenzene

0.2322 0.200000 116 54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0259 - GCVOAS (continued)

Matrix Spike Dup (B3I0259-MSD1)	Source: 1302839-02		Prepared: 9/17/2013 Analyzed: 9/17/2013					
Gasoline Range Organics	4.43900	1.0	5.00000	ND	88.8	42 - 125	0.655	20
Surrogate: 4-Bromofluorobenzene	0.1534		0.200000		76.7	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS

Blank (B3I0284-BLK1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Gasoline Range Organics	ND	1.0			NR				
T/R Hydrocarbons: C4-C12	ND	1.0			NR				
Surrogate: 4-Bromofluorobenzene	0.2119			0.200000		106	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

LCS (B3I0284-BS1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Gasoline Range Organics	5.03000	1.0	5.00000	101	70 - 130
T/R Hydrocarbons: C4-C12	4.97500	1.0	5.00000	99.5	70 - 130
Surrogate: 4-Bromofluorobenzene	0.1989		0.200000	99.4	54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

LCS Dup (B3I0284-BSD1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Gasoline Range Organics	4.93200	1.0	5.00000	98.6	70 - 130	1.97	20
T/R Hydrocarbons: C4-C12	4.89300	1.0	5.00000	97.9	70 - 130	1.66	20
Surrogate: 4-Bromofluorobenzene	0.2272		0.200000	114	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

Matrix Spike (B3I0284-MS1) **Source: 1302865-01** Prepared: 9/18/2013 Analyzed: 9/18/2013

Gasoline Range Organics	4.99500	1.0	5.00000	ND	99.9	42 - 125
T/R Hydrocarbons: C4-C12	4.95700	1.0	5.00000	ND	99.1	42 - 125
Surrogate: 4-Bromofluorobenzene	0.2406		0.200000		120	54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

Matrix Spike Dup (B3I0284-MSD1)	Source: 1302865-01		Prepared: 9/18/2013 Analyzed: 9/18/2013					
Gasoline Range Organics	4.83800	1.0	5.00000	ND	96.8	42 - 125	3.19	20
T/R Hydrocarbons: C4-C12	4.80300	1.0	5.00000	ND	96.1	42 - 125	3.16	20
Surrogate: 4-Bromofluorobenzene	0.2000		0.200000		100	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS

Blank (B3I0305-BLK1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Gasoline Range Organics	ND	1.0		NR					
Surrogate: 4-Bromofluorobenzene	0.2020		0.200000		101	54 - 150			



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

LCS (B3I0305-BS1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Gasoline Range Organics	4.81600	1.0	5.00000	96.3	70 - 130
Surrogate: 4-Bromofluorobenzene	0.2006		0.200000	100	54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

LCS Dup (B3I0305-BSD1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Gasoline Range Organics	4.61400	1.0	5.00000	92.3	70 - 130	4.28	20
Surrogate: 4-Bromofluorobenzene	0.1948		0.200000	97.4	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

Matrix Spike (B3I0305-MS1)	Source: 1302839-25			Prepared: 9/18/2013 Analyzed: 9/18/2013		
Gasoline Range Organics	3.90300	1.0	5.00000	ND	78.1	42 - 125
Surrogate: 4-Bromofluorobenzene	0.1896		0.200000		94.8	54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

Matrix Spike Dup (B3I0305-MSD1)	Source: 1302839-25		Prepared: 9/18/2013 Analyzed: 9/18/2013					
Gasoline Range Organics	3.74800	1.0	5.00000	ND	75.0	42 - 125	4.05	20
Surrogate: 4-Bromofluorobenzene	0.1664		0.200000		83.2	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS

Blank (B3I0347-BLK1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Gasoline Range Organics	ND	1.0			NR				
T/R Hydrocarbons: C4-C12	ND	1.0			NR				
Surrogate: 4-Bromofluorobenzene	0.1915			0.200000		95.7	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

LCS (B3I0347-BS1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Gasoline Range Organics	4.35800	1.0	5.00000	87.2	70 - 130
T/R Hydrocarbons: C4-C12	4.30800	1.0	5.00000	86.2	70 - 130
Surrogate: 4-Bromofluorobenzene	0.2060		0.200000	103	54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

LCS Dup (B3I0347-BSD1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Gasoline Range Organics	4.56000	1.0	5.00000	91.2	70 - 130	4.53	20
T/R Hydrocarbons: C4-C12	4.48700	1.0	5.00000	89.7	70 - 130	4.07	20
Surrogate: 4-Bromofluorobenzene	0.2157		0.200000	108	54 - 150		



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

Matrix Spike (B3I0347-MS1) **Source: 1302839-40** Prepared: 9/20/2013 Analyzed: 9/20/2013

Gasoline Range Organics	3.46100	1.0	5.00000	ND	69.2	42 - 125
T/R Hydrocarbons: C4-C12	3.42600	1.0	5.00000	ND	68.5	42 - 125
Surrogate: 4-Bromofluorobenzene	0.1972		0.200000		98.6	54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

Matrix Spike Dup (B3I0347-MSD1)	Source: 1302839-40		Prepared: 9/20/2013 Analyzed: 9/20/2013					
Gasoline Range Organics	3.53800	1.0	5.00000	ND	70.8	42 - 125	2.20	20
T/R Hydrocarbons: C4-C12	3.51000	1.0	5.00000	ND	70.2	42 - 125	2.42	20
Surrogate: 4-Bromofluorobenzene	0.2085		0.200000		104	54 - 150		



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0295 - GCSEMI_DRO_SOIL_LL

Blank (B3I0295-BLK1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

DRO	ND	1.0		NR					
ORO	ND	1.0		NR					
Surrogate: p-Terphenyl	2.116		2.66667		79.3	33 - 147			



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0295 - GCSEMI_DRO_SOIL_LL (continued)

LCS (B3I0295-BS1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

DRO	35.0533	1.0	33.3333	105	43 - 120
Surrogate: <i>p-Terphenyl</i>	2.165		2.66667	81.2	33 - 147



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0295 - GCSEMI_DRO_SOIL_LL (continued)

Matrix Spike (B3I0295-MS1)	Source: 1302839-16			Prepared: 9/18/2013 Analyzed: 9/19/2013			
DRO	20.0353	1.0	33.3333	4.36833	47.0	17 - 112	
Surrogate: <i>p</i> -Terphenyl		1.316		2.66667		49.4	33 - 147



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0295 - GCSEMI_DRO_SOIL_LL (continued)

Matrix Spike Dup (B3I0295-MSD1) Source: 1302839-16 Prepared: 9/18/2013 Analyzed: 9/19/2013

DRO	24.3180	1.0	33.3333	4.36833	59.8	17 - 112	19.3	20	
Surrogate: <i>p</i> -Terphenyl		1.744		2.66667		65.4	33 - 147		



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0335 - GCSEMI_DRO_SOIL_LL

Blank (B3I0335-BLK1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

DRO	ND	1.0			NR				
ORO	ND	1.0			NR				
Surrogate: p-Terphenyl	2.423		2.66667		90.9	33 - 147			



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0335 - GCSEMI_DRO_SOIL_LL (continued)

LCS (B3I0335-BS1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

DRO	35.4567	1.0	33.3333	106	43 - 120
Surrogate: <i>p</i> -Terphenyl	2.214		2.66667	83.0	33 - 147



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0335 - GCSEMI_DRO_SOIL_LL (continued)

Matrix Spike (B3I0335-MS1)	Source: 1302839-31			Prepared: 9/19/2013 Analyzed: 9/19/2013			
DRO	22.1153	1.0	33.3333	7.28060	44.5	17 - 112	
Surrogate: <i>p</i> -Terphenyl	1.043		2.66667		39.1	33 - 147	



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Diesel Range Organics by EPA 8015B (SGT) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0335 - GCSEMI_DRO_SOIL_LL (continued)

Matrix Spike Dup (B3I0335-MSD1) Source: 1302839-31 Prepared: 9/19/2013 Analyzed: 9/19/2013

DRO	34.0247	1.0	33.3333	7.28060	80.2	17 - 112	42.4	20	R2
Surrogate: <i>p</i> -Terphenyl		1.646		2.66667		61.7	33 - 147		



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BTEX/MTBE by EPA 8021 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0259 - GCVOAS

Blank (B3I0259-BLK1)

Prepared: 9/17/2013 Analyzed: 9/17/2013

Benzene	ND	5.0			NR				
Toluene	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
o-Xylene	ND	5.0			NR				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>161.0</i>	<i>200.000</i>			<i>80.5</i>	<i>53 - 136</i>			



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0259 - GCVOAS (continued)

LCS (B3I0259-BS2)

Prepared: 9/17/2013 Analyzed: 9/17/2013

Benzene	99.3060	5.0	100.000	99.3	70 - 130
Toluene	99.1850	5.0	100.000	99.2	70 - 130
Ethylbenzene	103.714	5.0	100.000	104	70 - 130
m,p-Xylene	203.819	10	200.000	102	70 - 130
o-Xylene	100.096	5.0	100.000	100	70 - 130
Surrogate: 4-Bromofluorobenzene	168.5		200.000	84.2	53 - 136



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0259 - GCVOAS (continued)

LCS Dup (B3I0259-BSD2)

Prepared: 9/17/2013 Analyzed: 9/17/2013

Benzene	101.218	5.0	100.000	101	70 - 130	1.91	20
Toluene	100.745	5.0	100.000	101	70 - 130	1.56	20
Ethylbenzene	105.372	5.0	100.000	105	70 - 130	1.59	20
m,p-Xylene	207.552	10	200.000	104	70 - 130	1.81	20
o-Xylene	102.976	5.0	100.000	103	70 - 130	2.84	20
Surrogate: 4-Bromofluorobenzene	149.8		200.000	74.9	53 - 136		



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0259 - GCVOAS (continued)

Matrix Spike (B3I0259-MS1) **Source: 1302839-02** Prepared: 9/17/2013 Analyzed: 9/17/2013

Benzene	44.6250	5.0	40.7500	ND	110	37 - 139
Toluene	168.182	5.0	202.250	ND	83.2	43 - 129
Ethylbenzene	52.7870	5.0	76.0000	ND	69.5	34 - 106
m,p-Xylene	184.153	10	206.500	ND	89.2	43 - 137
o-Xylene	69.0120	5.0	73.5000	ND	93.9	43 - 144
<i>Surrogate: 4-Bromofluorobenzene</i>	229.5		200.000		115	53 - 136



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0259 - GCVOAS (continued)

Matrix Spike Dup (B3I0259-MSD1) **Source: 1302839-02** Prepared: 9/17/2013 Analyzed: 9/17/2013

Benzene	44.7950	5.0	40.7500	ND	110	37 - 139	0.380	20
Toluene	168.388	5.0	202.250	ND	83.3	43 - 129	0.122	20
Ethylbenzene	52.8130	5.0	76.0000	ND	69.5	34 - 106	0.0492	20
m,p-Xylene	184.207	10	206.500	ND	89.2	43 - 137	0.0293	20
o-Xylene	68.1510	5.0	73.5000	ND	92.7	43 - 144	1.26	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>154.4</i>		<i>200.000</i>		<i>77.2</i>	<i>53 - 136</i>		



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS

Blank (B3I0284-BLK1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	ND	5.0			NR				
Toluene	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
o-Xylene	ND	5.0			NR				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>205.4</i>	<i>200.000</i>			<i>103</i>	<i>53 - 136</i>			



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

LCS (B3I0284-BS2)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	96.9690	5.0	100.000	97.0	70 - 130
Toluene	97.0950	5.0	100.000	97.1	70 - 130
Ethylbenzene	101.387	5.0	100.000	101	70 - 130
m,p-Xylene	199.088	10	200.000	99.5	70 - 130
o-Xylene	98.7790	5.0	100.000	98.8	70 - 130
Surrogate: 4-Bromofluorobenzene	201.7		200.000	101	53 - 136



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

LCS Dup (B3I0284-BSD2)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	92.9120	5.0	100.000	92.9	70 - 130	4.27	20
Toluene	92.8730	5.0	100.000	92.9	70 - 130	4.44	20
Ethylbenzene	98.4590	5.0	100.000	98.5	70 - 130	2.93	20
m,p-Xylene	192.988	10	200.000	96.5	70 - 130	3.11	20
o-Xylene	95.0120	5.0	100.000	95.0	70 - 130	3.89	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>194.3</i>		<i>200.000</i>	<i>97.1</i>	<i>53 - 136</i>		



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

Matrix Spike (B3I0284-MS1) **Source: 1302865-01** Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	49.5270	5.0	40.7500	ND	122	37 - 139
Toluene	192.259	5.0	202.250	ND	95.1	43 - 129
Ethylbenzene	59.9250	5.0	76.0000	ND	78.8	34 - 106
m,p-Xylene	211.579	10	206.500	ND	102	43 - 137
o-Xylene	78.6210	5.0	73.5000	ND	107	43 - 144
<i>Surrogate: 4-Bromofluorobenzene</i>	237.2		200.000		119	53 - 136



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0284 - GCVOAS (continued)

Matrix Spike Dup (B3I0284-MSD1) **Source: 1302865-01** Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	48.9580	5.0	40.7500	ND	120	37 - 139	1.16	20
Toluene	188.077	5.0	202.250	ND	93.0	43 - 129	2.20	20
Ethylbenzene	58.8070	5.0	76.0000	ND	77.4	34 - 106	1.88	20
m,p-Xylene	207.236	10	206.500	ND	100	43 - 137	2.07	20
o-Xylene	77.9350	5.0	73.5000	ND	106	43 - 144	0.876	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>198.9</i>		<i>200.000</i>		<i>99.5</i>	<i>53 - 136</i>		



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Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/23/2013

BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS

Blank (B3I0305-BLK1)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	ND	5.0			NR				
Toluene	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
o-Xylene	ND	5.0			NR				

Surrogate: 4-Bromofluorobenzene 194.1 200.000 97.0 53 - 136



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

LCS (B3I0305-BS2)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	95.8730	5.0	100.000	95.9	70 - 130
Toluene	95.1080	5.0	100.000	95.1	70 - 130
Ethylbenzene	100.040	5.0	100.000	100	70 - 130
m,p-Xylene	196.325	10	200.000	98.2	70 - 130
o-Xylene	97.6470	5.0	100.000	97.6	70 - 130
Surrogate: 4-Bromofluorobenzene	170.7		200.000	85.4	53 - 136



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

LCS Dup (B3I0305-BSD2)

Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	95.3140	5.0	100.000	95.3	70 - 130	0.585	20
Toluene	93.9520	5.0	100.000	94.0	70 - 130	1.22	20
Ethylbenzene	98.3920	5.0	100.000	98.4	70 - 130	1.66	20
m,p-Xylene	193.190	10	200.000	96.6	70 - 130	1.61	20
o-Xylene	95.9900	5.0	100.000	96.0	70 - 130	1.71	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>187.4</i>		<i>200.000</i>	<i>93.7</i>	<i>53 - 136</i>		



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

Matrix Spike (B3I0305-MS1) **Source: 1302839-25** Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	35.0040	5.0	40.7500	ND	85.9	37 - 139
Toluene	154.411	5.0	202.250	ND	76.3	43 - 129
Ethylbenzene	48.2810	5.0	76.0000	ND	63.5	34 - 106
m,p-Xylene	170.082	10	206.500	ND	82.4	43 - 137
o-Xylene	63.9840	5.0	73.5000	ND	87.1	43 - 144
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>186.9</i>		<i>200.000</i>		<i>93.4</i>	<i>53 - 136</i>



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0305 - GCVOAS (continued)

Matrix Spike Dup (B3I0305-MSD1) **Source: 1302839-25** Prepared: 9/18/2013 Analyzed: 9/18/2013

Benzene	37.8830	5.0	40.7500	ND	93.0	37 - 139	7.90	20
Toluene	146.874	5.0	202.250	ND	72.6	43 - 129	5.00	20
Ethylbenzene	45.4140	5.0	76.0000	ND	59.8	34 - 106	6.12	20
m,p-Xylene	160.978	10	206.500	ND	78.0	43 - 137	5.50	20
o-Xylene	60.5500	5.0	73.5000	ND	82.4	43 - 144	5.51	20
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>164.7</i>		<i>200.000</i>		<i>82.4</i>	<i>53 - 136</i>		



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Report To : Karen Emery
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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS

Blank (B3I0347-BLK1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Benzene	ND	5.0			NR				
Toluene	ND	5.0			NR				
Ethylbenzene	ND	5.0			NR				
m,p-Xylene	ND	10			NR				
o-Xylene	ND	5.0			NR				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>185.1</i>	<i>200.000</i>			<i>92.6</i>	<i>53 - 136</i>			



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Report To : Karen Emery
Reported : 09/23/2013

BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

LCS (B3I0347-BS2)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Benzene	88.4470	5.0	100.000	88.4	70 - 130
Toluene	88.3420	5.0	100.000	88.3	70 - 130
Ethylbenzene	92.6650	5.0	100.000	92.7	70 - 130
m,p-Xylene	182.221	10	200.000	91.1	70 - 130
o-Xylene	90.3090	5.0	100.000	90.3	70 - 130
Surrogate: 4-Bromofluorobenzene	190.2		200.000	95.1	53 - 136



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Report To : Karen Emery
Reported : 09/23/2013

BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

LCS Dup (B3I0347-BSD2)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Benzene	85.2020	5.0	100.000	85.2	70 - 130	3.74	20
Toluene	84.7880	5.0	100.000	84.8	70 - 130	4.11	20
Ethylbenzene	89.5060	5.0	100.000	89.5	70 - 130	3.47	20
m,p-Xylene	175.538	10	200.000	87.8	70 - 130	3.74	20
o-Xylene	86.8100	5.0	100.000	86.8	70 - 130	3.95	20
Surrogate: 4-Bromofluorobenzene	175.8		200.000	87.9	53 - 136		



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

Matrix Spike (B3I0347-MS1)	Source: 1302839-40		Prepared: 9/20/2013 Analyzed: 9/20/2013			
Benzene	34.4100	5.0	40.7500	ND	84.4	37 - 139
Toluene	135.428	5.0	202.250	0.488000	66.7	43 - 129
Ethylbenzene	42.3080	5.0	76.0000	ND	55.7	34 - 106
m,p-Xylene	149.685	10	206.500	ND	72.5	43 - 137
o-Xylene	56.8230	5.0	73.5000	ND	77.3	43 - 144
Surrogate: 4-Bromofluorobenzene	193.9		200.000		96.9	53 - 136



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BTEX/MTBE by EPA 8021 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0347 - GCVOAS (continued)

Matrix Spike Dup (B3I0347-MSD1) **Source: 1302839-40** Prepared: 9/20/2013 Analyzed: 9/20/2013

Benzene	35.7240	5.0	40.7500	ND	87.7	37 - 139	3.75	20
Toluene	139.610	5.0	202.250	0.488000	68.8	43 - 129	3.04	20
Ethylbenzene	44.1230	5.0	76.0000	ND	58.1	34 - 106	4.20	20
m,p-Xylene	153.681	10	206.500	ND	74.4	43 - 137	2.63	20
o-Xylene	57.8110	5.0	73.5000	ND	78.7	43 - 144	1.72	20
<i>Surrogate: 4-Bromofluorobenzene</i>	203.7		200.000		102	53 - 136		



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0297 - GCSEMI_PCB/PEST
Blank (B3I0297-BLK1)

Prepared: 9/18/2013 Analyzed: 9/20/2013

4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B3I0297 - GCSEMI_PCB/PEST (continued)

Blank (B3I0297-BLK1) - Continued

Prepared: 9/18/2013 Analyzed: 9/20/2013

Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
<i>Surrogate: Decachlorobiphenyl</i>	<i>13.96</i>		<i>16.6667</i>		<i>83.8</i>		<i>32 - 113</i>		
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>13.52</i>		<i>16.6667</i>		<i>81.1</i>		<i>32 - 113</i>		
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.27</i>		<i>16.6667</i>		<i>79.6</i>		<i>32 - 101</i>		
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>13.02</i>		<i>16.6667</i>		<i>78.1</i>		<i>32 - 101</i>		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0297 - GCSEMI_PCB/PEST (continued)									
LCS (B3I0297-BS1)									
					Prepared: 9/18/2013	Analyzed: 9/20/2013			
4,4'-DDT	15.3583	2.0	16.6667		92.1	60 - 108			
4,4'-DDT [2C]	15.6733	2.0	16.6667		94.0	60 - 108			
Aldrin	14.4577	1.0	16.6667		86.7	57 - 111			
Aldrin [2C]	13.7160	1.0	16.6667		82.3	57 - 111			
Dieldrin	13.8913	2.0	16.6667		83.3	61 - 106			
Dieldrin [2C]	14.1480	2.0	16.6667		84.9	61 - 106			
Endrin	19.7198	2.0	16.6667		118	57 - 97		L5	
Endrin [2C]	19.4983	2.0	16.6667		117	57 - 97		L5	
gamma-BHC	14.6957	1.0	16.6667		88.2	61 - 109			
gamma-BHC [2C]	14.1285	1.0	16.6667		84.8	61 - 109			
Heptachlor	16.9240	1.0	16.6667		102	58 - 115			
Heptachlor [2C]	17.6152	1.0	16.6667		106	58 - 115			
<i>Surrogate: Decachlorobiphenyl</i>	<i>15.41</i>		<i>16.6667</i>		<i>92.5</i>	<i>32 - 113</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>15.16</i>		<i>16.6667</i>		<i>91.0</i>	<i>32 - 113</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>13.26</i>		<i>16.6667</i>		<i>79.6</i>	<i>32 - 101</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>13.67</i>		<i>16.6667</i>		<i>82.0</i>	<i>32 - 101</i>			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0297 - GCSEMI_PCB/PEST (continued)									
Matrix Spike (B3I0297-MS1)									
				Source: 1302839-12		Prepared: 9/18/2013 Analyzed: 9/20/2013			
4,4'-DDT	19.4340	2.0	16.6667	1.67850	107	26 - 133			
4,4'-DDT [2C]	19.3755	2.0	16.6667	1.22417	109	26 - 133			
Aldrin	15.7415	1.0	16.6667	ND	94.4	38 - 119			
Aldrin [2C]	16.4337	1.0	16.6667	ND	98.6	38 - 119			
Dieldrin	15.1670	2.0	16.6667	ND	91.0	30 - 120			
Dieldrin [2C]	17.0467	2.0	16.6667	ND	102	30 - 120			
Endrin	22.6078	2.0	16.6667	ND	136	30 - 114		M1	
Endrin [2C]	23.6573	2.0	16.6667	ND	142	30 - 114		M1	
gamma-BHC	16.1990	1.0	16.6667	ND	97.2	31 - 122			
gamma-BHC [2C]	17.1868	1.0	16.6667	ND	103	31 - 122			
Heptachlor	19.8443	1.0	16.6667	ND	119	38 - 123			
Heptachlor [2C]	23.0328	1.0	16.6667	ND	138	38 - 123		M1	
<i>Surrogate: Decachlorobiphenyl</i>	15.92		16.6667		95.5	32 - 113			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	16.51		16.6667		99.1	32 - 113			
<i>Surrogate: Tetrachloro-m-xylene</i>	14.43		16.6667		86.6	32 - 101			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	15.88		16.6667		95.3	32 - 101			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B3I0297 - GCSEMI_PCB/PEST (continued)									
Matrix Spike Dup (B3I0297-MSD1)									
				Source: 1302839-12		Prepared: 9/18/2013 Analyzed: 9/20/2013			
4,4'-DDT	16.8188	2.0	16.6667	1.67850	90.8	26 - 133	14.4	20	
4,4'-DDT [2C]	18.1743	2.0	16.6667	1.22417	102	26 - 133	6.40	20	
Aldrin	15.3402	1.0	16.6667	ND	92.0	38 - 119	2.58	20	
Aldrin [2C]	16.0075	1.0	16.6667	ND	96.0	38 - 119	2.63	20	
Dieldrin	14.2382	2.0	16.6667	ND	85.4	30 - 120	6.32	20	
Dieldrin [2C]	15.9432	2.0	16.6667	ND	95.7	30 - 120	6.69	20	
Endrin	20.9170	2.0	16.6667	ND	126	30 - 114	7.77	20	M1
Endrin [2C]	22.2103	2.0	16.6667	ND	133	30 - 114	6.31	20	M1
gamma-BHC	15.9375	1.0	16.6667	ND	95.6	31 - 122	1.63	20	
gamma-BHC [2C]	16.7840	1.0	16.6667	ND	101	31 - 122	2.37	20	
Heptachlor	19.9887	1.0	16.6667	ND	120	38 - 123	0.725	20	
Heptachlor [2C]	23.1218	1.0	16.6667	ND	139	38 - 123	0.386	20	M1
<i>Surrogate: Decachlorobiphenyl</i>	14.06		16.6667		84.4	32 - 113			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	15.09		16.6667		90.6	32 - 113			
<i>Surrogate: Tetrachloro-m-xylene</i>	14.42		16.6667		86.5	32 - 101			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	15.52		16.6667		93.1	32 - 101			



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Reported : 09/23/2013

Notes and Definitions

R2	RPD value outside acceptance criteria due to possible matrix interference.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

ES-F10 CHAIN OF CUSTODY

PROJECT NAME: Washington Hospital CC/ED Building

PROJECT NO.: 04.72130070

PROJECT CONTACT: Karen Emery

SAMPLED BY: Mike D'Anna

LAB: ATL

TURNAROUND: 5 day

PAGE \ OF
ANALYSIS REQUESTED

LABORATORY NUMBER	FIELD SAMPLE I.D.	MATRIX	CONTAINERS	PRESERVATIVE	SAMPLING DATE			TIME
					MONTH	DAY	YEAR	
130283q - 1	B-1@0.5	WATER	SOLID	AIR	X	X	0 9 1	2 1 3 0 8 4 1
- 2	B-1@1.5				X	X	0 9 1	2 1 3 0 8 4 0
- 3	B-1@4				X	X	0 9 1	2 1 3 0 8 5 7
- 4	B-1@14				X	X	0 9 1	2 1 3 0 9 1 5
- 5	B-1@28				X	X	0 9 1	2 1 3 0 9 3 3
- 6	B-2@1				X	X	0 9 1	2 1 3 0 9 4 4
- 7	B-2@2				X	X	0 9 1	2 1 3 0 9 4 3
- 8	B-2@7				X	X	0 9 1	2 1 3 0 9 5 3
- 9	B-2@20				X	X	0 9 1	2 1 3 1 0 0 9
- 10	B-2@27				X	X	0 9 1	2 1 3 1 0 1 9
- 11	B-3@0.5				X	X	0 9 1	2 1 3 1 2 3 1
- 12	B-3@1.5				X	X	0 9 1	2 1 3 1 2 3 0
- 13	B-3@4				X	X	0 9 1	2 1 3 1 2 3 8

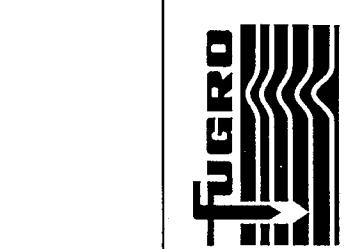
CHAIN OF CUSTODY RECORD

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RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	9/13/13 2:44	GSO	9/13/13 2:44
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	9/14/13 0840		9/14/13 0840
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

R13E292

COMMENTS & NOTES: REFER TO ATL QUOTE

TPHg and BTEX	Notes
CAM 17 Metals	
TPHD and TPMo with silica gel cleanup	
Organochlorine Pesticides	



ES-F10 CHAIN OF CUSTODY

PROJECT NAME: Washington Hospital CC/ED Building

PROJECT NO.: 04-72130070

PROJECT CONTACT: Karen Emery

SAMPLED BY: Mike D'Anna

LABORATORY NUMBER	FIELD SAMPLE I.D.	MATRIX	CONTAINERS	PRESERVATIVE	SAMPLING DATE			TIME
					MONTH	DAY	YEAR	
13-2273 q - 14	B-3@9	X	X	None	0	9	1	2 4 2
- 15	B-3@19	X	X	NCE	0	9	1	2 5 7
- 15	B-3@29	X	X	HNO ₃	0	9	1	2 5 9
- 17	B-4@1	X	X	H ₂ SO ₄	0	9	1	2 0 2
- 17	B-4@2	X	X	HCl	0	9	1	2 0 0
- 19	B-4@7	X	X	TUBE	0	9	1	2 0 0
- 19	B-4@12	X	X	GLASS JAR	0	9	1	2 0 0
- 21	B-4@22	X	X	POLY	0	9	1	2 0 0
- 21	B-4@32	X	X	VOLA	0	9	1	2 0 0
- 23	B-4@39	X	X	SLUDGE	0	9	1	2 0 0
- 24	B-5@0.5	X	X	AIR	0	9	1	2 0 0
- 25	B-5@1.5	X	X	SOLID	0	9	1	2 0 0
- 25	B-5@4	X	X	WATER	0	9	1	2 0 0

PAGE 7 OF 4

ANALYSIS REQUESTED

EDF REPORTING

Organochlorine Pesticides

TPHg and BTEX

TPHd and TPHe with silica gel cleanup

CAM 17 Metals

R13E292

COMMENTS & NOTES: REFER TO ATL QUOTE

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	9/13/13 2:11		9/13/13 2:11
	9/13/13 2:44		9/13/13 2:44
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	9/13/13 2:44		9/14/13 08:40
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

FUGRO CONSULTANTS, INC.

1000 Broadway, Suite 440

Oakland, California 94607

Tel: 510.268.0461 Fax: 510.268.0545

ES-F10 CHAIN OF CUSTODY

PROJECT NAME: Washington Hospital CC/ED Building

PROJECT NO.: 04.72130070

PROJECT CONTACT: Karen Emery

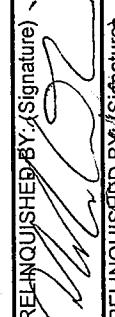
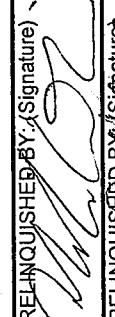
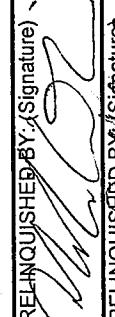
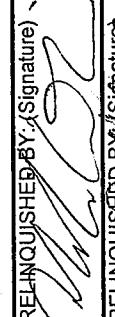
SAMPLED BY: Mike D'Anna

LAB: ATL

TURNAROUND: 5 day

PAGE 2 OF 2
ANALYSIS REQUESTED

LABORATORY I.D.	FIELD SAMPLE I.D.	MATRIX	CONTAINERS	PRESERVATIVE	SAMPLING DATE			Notes
					MONTH	DAY	YEAR	
1302X39 - 7	B-5@14	AIR	SLUDGE	HCl	0	9	1	X X X X
- 8Y	B-5@24	WATER	VOLA	HNO ₃	0	9	1	X X X X
- 2q	B-5@34	SOIL	TUBE	H ₂ SO ₄	0	9	1	X X X X
- 3o	B-6@1	AIR	LITER	OTHER	0	9	1	X X X X
- 3l	B-6@2	WATER	POLY	NONE	0	9	1	X X X X
- 3~	B-6@7	SOL	GLASS JAR	ICE	0	9	1	X X X X
- 73	B-6@16:20	AIR	TUBE	X	0	9	1	X X X X
- 34	B-6@27	WATER	POLY	X	0	9	1	X X X X
- 35	B-7@0.5	SOL	GLASS JAR	ICE	0	9	1	X X X X
- 35	B-7@1.5	AIR	TUBE	X	0	9	1	X X X X
- 17	B-7@4	WATER	POLY	X	0	9	1	X X X X
- 37	B-7@9	SOL	GLASS JAR	ICE	0	9	1	X X X X
- 39	B-7@19	AIR	TUBE	X	0	9	1	X X X X

R13E292								
COMMENTS & NOTES: REFER TO ATL QUOTE								
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	RELINQUISHED BY: (Signature)
	9/13/13 2:11		9/13/13 2:11		9/13/13 2:11		9/13/13 2:11	
FUGRO CONSULTANTS, INC.	FUGRO							
1000 Broadway, Suite 440								
Oakland, California 94607								
Tel: 510.268.0461 Fax: 510.268.0545								

ES-F10 CHAIN OF CUSTODY

PROJECT NAME: Washington Hospital CC/ED Building

PBO-IECT NO : 04-72130070

PROJECT CONTACT: Karen Emery

LAB: ATH

TURNAROUND: 5 day

SAMPLED BY: Mike D'Anna

CHAIN OF CUSTODY RECORD				COMMENTS & NOTES: REFER TO ATL QUOTE	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME		
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	9/13/13		9/13/13 244		
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME		
			9/14/13 0540		
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME		
FUGRO CONSULTANTS, INC. 1000 Broadway, Suite 440 Oakland, California 94607 Tel: 510.268.0461 Fax: 510.268.0545					



September 30, 2013



Karen Emery
Fugro West, Inc.
1000 Broadway, Suite 440
Oakland, CA 94607
Tel: (510) 267-4432
Fax:(510) 268-0137

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1302839

Client Reference : Washington Hospital CC/ED Building, 04.72130070

Enclosed are the results for sample(s) received on September 14, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eddie Rodriguez'.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-1@1.5	1302839-02	Soil	9/12/13 8:40	9/14/13 8:40
B-1@4	1302839-03	Soil	9/12/13 8:57	9/14/13 8:40
B-1@28	1302839-05	Soil	9/12/13 9:33	9/14/13 8:40
B-2@2	1302839-07	Soil	9/12/13 9:43	9/14/13 8:40
B-3@1.5	1302839-12	Soil	9/12/13 12:30	9/14/13 8:40
B-3@4	1302839-13	Soil	9/12/13 12:38	9/14/13 8:40
B-3@9	1302839-14	Soil	9/12/13 12:42	9/14/13 8:40
B-4@2	1302839-18	Soil	9/12/13 11:00	9/14/13 8:40
B-4@7	1302839-19	Soil	9/12/13 11:09	9/14/13 8:40
B-4@22	1302839-21	Soil	9/12/13 11:32	9/14/13 8:40
B-4@32	1302839-22	Soil	9/12/13 11:50	9/14/13 8:40
B-5@1.5	1302839-25	Soil	9/12/13 13:42	9/14/13 8:40
B-5@14	1302839-27	Soil	9/12/13 14:00	9/14/13 8:40
B-6@2	1302839-31	Soil	9/13/13 8:50	9/14/13 8:40
B-6@7	1302839-32	Soil	9/13/13 9:04	9/14/13 8:40
B-6@27	1302839-34	Soil	9/13/13 9:31	9/14/13 8:40
B-7@1.5	1302839-36	Soil	9/13/13 7:53	9/14/13 8:40
B-7@4	1302839-37	Soil	9/13/13 8:01	9/14/13 8:40
B-8@2	1302839-43	Soil	9/13/13 6:57	9/14/13 8:40
B-8@7	1302839-44	Soil	9/13/13 7:07	9/14/13 8:40
B-8@12	1302839-45	Soil	9/13/13 7:17	9/14/13 8:40



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-1@1.5

Lab ID: 1302839-02

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0510	09/27/2013	09/27/13 14:22	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:03	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-1@4

Lab ID: 1302839-03

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:12	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:05	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-1@28

Lab ID: 1302839-05

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:19	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:08	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-2@2

Lab ID: 1302839-07

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:21	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:10	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-3@1.5

Lab ID: 1302839-12

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:24	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:12	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-3@4

Lab ID: 1302839-13

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:26	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:14	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-3@9

Lab ID: 1302839-14

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:33	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:16	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-4@2

Lab ID: 1302839-18

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:35	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:19	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-4@7

Lab ID: 1302839-19

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:38	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:21	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-4@22

Lab ID: 1302839-21

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:40	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:23	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-4@32

Lab ID: 1302839-22

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:43	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:29	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-5@1.5

Lab ID: 1302839-25

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	0.053	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:45	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:31	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-5@14

Lab ID: 1302839-27

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:47	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:33	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-6@2

Lab ID: 1302839-31

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:50	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:36	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-6@7

Lab ID: 1302839-32

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:53	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:38	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-6@27

Lab ID: 1302839-34

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 13:55	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:40	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-7@1.5

Lab ID: 1302839-36

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 14:01	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:42	



Certificate of Analysis

Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-7@4

Lab ID: 1302839-37

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 14:04	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:44	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-8@2

Lab ID: 1302839-43

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 14:06	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0486	09/26/2013	09/26/13 14:47	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-8@7

Lab ID: 1302839-44

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 14:09	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0487	09/26/2013	09/27/13 07:55	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Client Sample ID B-8@12

Lab ID: 1302839-45

TCLP Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	0.050	NA	1	B3I0509	09/27/2013	09/27/13 14:11	

STLC Metals by ICP-AES by EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chromium	ND	1.0	NA	20	B3I0487	09/26/2013	09/27/13 08:02	



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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

QUALITY CONTROL SECTION

TCLP Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0509 - EPA 3010A_SOIL

Blank (B3I0509-BLK1) Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	ND	0.050	NR
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Blank (B3I0509-BLK2) Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	ND	0.050	NR
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LCS (B3I0509-BS1) Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	1.01364	0.050	1.00000	101	80 - 120
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Matrix Spike (B3I0509-MS1) Source: 1302839-03 Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	2.38547	0.050	2.50000	0.011849	94.9	76 - 113
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Matrix Spike Dup (B3I0509-MSD1) Source: 1302839-03 Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	2.38845	0.050	2.50000	0.011849	95.1	76 - 113	0.125	20
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Batch B3I0510 - EPA 3010A_SOIL

Blank (B3I0510-BLK1) Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	ND	0.050	NR
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Blank (B3I0510-BLK2) Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	ND	0.050	NR
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LCS (B3I0510-BS1) Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	0.990850	0.050	1.00000	99.1	80 - 120
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Matrix Spike (B3I0510-MS1) Source: 1302839-02 Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	2.33878	0.050	2.50000	0.009294	93.2	76 - 113
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Matrix Spike Dup (B3I0510-MSD1) Source: 1302839-02 Prepared: 9/27/2013 Analyzed: 9/27/2013

Chromium	2.58182	0.050	2.50000	0.009294	103	76 - 113	9.88	20
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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

STLC Metals by ICP-AES by EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B3I0486 - STLC Extraction
Blank (B3I0486-BLK1)

Prepared: 9/26/2013 Analyzed: 9/26/2013

Chromium	ND	1.0	NR
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LCS (B3I0486-BS1)

Prepared: 9/26/2013 Analyzed: 9/26/2013

Chromium	2.02206	1.0	2.00000	101	80 - 120
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Matrix Spike (B3I0486-MS1)

Source: 1302812-01 Prepared: 9/26/2013 Analyzed: 9/26/2013

Chromium	2.50784	1.0	2.50000	0.093532	96.6	74 - 103
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Matrix Spike Dup (B3I0486-MSD1)

Source: 1302812-01 Prepared: 9/26/2013 Analyzed: 9/26/2013

Chromium	2.55133	1.0	2.50000	0.093532	98.3	74 - 103	1.72	20
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Batch B3I0487 - STLC Extraction
Blank (B3I0487-BLK1)

Prepared: 9/26/2013 Analyzed: 9/27/2013

Chromium	ND	1.0	NR
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LCS (B3I0487-BS1)

Prepared: 9/26/2013 Analyzed: 9/27/2013

Chromium	2.04084	1.0	2.00000	102	80 - 120
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Matrix Spike (B3I0487-MS1)

Source: 1302839-44 Prepared: 9/26/2013 Analyzed: 9/27/2013

Chromium	2.57185	1.0	2.50000	0.071825	100	74 - 103
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Matrix Spike Dup (B3I0487-MSD1)

Source: 1302839-44 Prepared: 9/26/2013 Analyzed: 9/27/2013

Chromium	2.50534	1.0	2.50000	0.071825	97.3	74 - 103	2.62	20
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Fugro West, Inc.

1000 Broadway, Suite 440
Oakland , CA 94607

Project Number : Washington Hospital CC/ED Building, 04

Report To : Karen Emery
Reported : 09/30/2013

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

Rachelle Arada

From: Emery, Karen [FCL] [kemery@fugro.com]
Sent: Monday, September 23, 2013 4:26 PM
To: Rachelle Arada
Subject: RE: Results/Invoice - Washington Hospital CC/ED Building, 04.72130070 (ATL# 1302839)

Importance: High

Hi Rachelle,

Please run soluble chromium (**WET & TCLP**) on the following samples on a 5 day turnaround time:

- B-1@1.5
- B-1@4
- B-1@28
- B-2@2
- B-3@1.5
- B-3@4
- B-3@9
- B-4@2
- B-4@7
- B-4@22
- B-4@32
- B-5@1.5
- B-5@14
- B-6@2
- B-6@7
- B-6@27
- B-7@1.5
- B-7@4
- B-8@2
- B-8@7
- B-8@12

Please let me know if you have any questions.

Thanks,

Karen A. Emery, P.G.
Senior Geologist

Fugro Consultants, Inc.

1000 Broadway, Suite 440
Oakland, California 94607
Office: (510) 268-0461 / Direct: (510) 267-4432 / Cell: (510) 610-2832
kemery@fugro.com / www.FugroConsultants.com