

UNIVERSITY OF MINNESOTA

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July 16, 2013

Mr. Gary Krueger
Superfund Program
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

RE: Phase II Investigation Report, North Haul Road, UMore Mining Area, Dakota County, Minnesota

Dear Mr. Krueger:

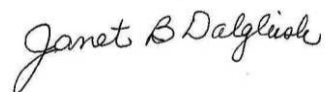
The attached Phase II Report presents the soil quality data collected along the proposed North Hall Road. Barr Engineering completed the investigation for the University of Minnesota in accordance with the MPCA-reviewed work plan to document the soil quality along the former Gopher Ordinance Works railroad track. The railroad track has been removed, and the former railroad bed is used as a farm road. The North Haul Road will be constructed along the farm road, between Akron Avenue and the UMore Mining Area, to allow gravel truck access to the northern sections of the mining area.

No indication of a release of hazardous substances or petroleum products was encountered during the investigation and no analytes were detected above the Tier II Industrial Soil Reference Values. Based on the Phase II results, use of the soil on and adjacent to the former GOW railroad track is appropriate for construction of the North Haul Road.

The University anticipates that Dakota Aggregates LLC will begin construction of the North Haul Road later this summer.

Please contact Jim Eidem, (952) 832-2763 or me (612) 626-7095 if you have any questions or comments regarding the enclosed investigation report.

Sincerely,



Janet Dalgleish
Environmental Coordinator

c: Jim Eidem, Barr Engineering Co.
Steven Lott, UMore Development LLC
Dave Scheer, MPCA

UMP020425



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Technical Memorandum

To: Janet Dalglish, UMN EHS
From: Jim Eidem and Michelle Waters
Subject: Phase II Investigation, North Haul Road, UMore Mining Area, Dakota County, MN
Date: July 16, 2013
Project: 23191170.00
c: Steven Lott, UMore LLC

This Technical Memorandum provides a summary of the Phase II Investigation of the North Haul Road (NHR) adjacent to the portion of the UMore Mining Area (UMA) located in the City of Rosemount, Dakota County, Minnesota (Property). The Property is located at the University of Minnesota's Outreach, Research and Education (UMore) Park and is shown on Figure 1.

The University and Dakota Aggregates LLC intend to develop the NHR to support the recently permitted sand and gravel mining operations at the UMA. The NHR will be used primarily for loader and truck traffic. The road is intended for mining/construction traffic only and the public will not have access. Construction activities within this corridor will include excavation of portions of the grade to decrease the height and grade of the roadway to allow access to the mine pit floor, and filling with cut material derived from the roadbed in other areas of the roadway. The amount of cut/fill along the roadway is projected to be roughly balanced. No excavated soil will leave the corridor and only onsite soils will be used for construction.

Background

The NHR will be constructed on the former Gopher Ordnance Works (GOW) railroad track. The railroad track was one of the main railroad junctions for material arriving at the GOW. No derailments, spills or releases have been documented in the area. The railroad track still exhibits a raised rail grade and the tracks and ties were reportedly removed during the decommissioning of the GOW (Barr, 2009a).

Barr conducted a previous Phase II investigation at the Property in 2009. Soil samples were collected from direct-push soil borings and surface soil locations, and groundwater samples were collected from temporary wells. No analytes were detected above Tier II Industrial Soil Reference Values (SRVs). One

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surface sample (SOC1-SS2B), which was collected from the former railroad bed at a depth of 0.5 feet, had a benzo(a)pyrene equivalent (B(a)P), detection of 2.8 milligrams per kilogram (mg/kg) which is slightly above the Tier 1 SRV for unrestricted use of 2.0 mg/kg, but below the Tier 2 SRV for industrial use (3 mg/kg) and the Tier 1 Soil Leaching Value (SLV) (10.2 mg/kg). A map showing the results from the 2009 investigation is attached.

Scope

The scope and methods for this investigation were described in the May 17, 2013 work plan letter entitled *Revised Phase II Investigation Work Plan (Work Plan)*. The MPCA conducted a review of the Work Plan and responded with no further technical comments of the Work Plan on June 7, 2013. The scope included collecting 16 surface soil samples to supplement previous investigation results. One sample, NHR-SS1-1_1.5', was placed adjacent to SOC1-SS2B to evaluate the vertical extent of the B(a)P release. Samples NHR-SS8-0_0.5' and NHR-SS9-0_0.5' were placed to evaluate the horizontal extent of the P(a)P detection. SVOCs were not detected in any of the samples.

Methods and Field Observations

The surface soil sampling methods used during this investigation were consistent with the methods in the Work Plan and the Quality Assurance Project Plan in the UMA Sampling Analysis Plan (Barr, 2009b).

Barr field staff completed the field work June 5, 2013. Surface soil samples were collected using a shovel. The soil excavated from 0 to 0.5 feet below ground surface (bgs) at each location was thoroughly mixed in a stainless steel bowl prior to filling the sample bottles. At the location adjacent to SOC1-SS2B, soil was collected from 1 to 1.5 feet bgs using a shovel and hand auger. All equipment used for surface soil sampling was decontaminated using Alconox washing, and a potable water rinse between each sample location. Field screening at the surface soil locations included visual soil classification, observation of field evidence of contamination (odor, discoloration, sheen, and presence of debris) and monitoring for organic vapors using a photoionization detector (PID) with a 10.6 eV lamp. Barr staff did not observe evidence of a release of hazardous substances or petroleum products at the surface soil sampling locations. The surface soil sampling locations are shown on Figures 2A and 2B. The investigation locations, depths, and soil vapor headspace monitoring results are summarized in Table 1.

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The soil samples were analyzed by Legend Technical Services in St. Paul, Minnesota for diesel range organics (DRO), RCRA metals and semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs). The laboratory analytical reports are attached.

Barr conducted a data quality assurance/quality control review of the analytical data in accordance with the standard operating procedures included in the QAPP. The investigation data meets the data quality objectives in the QAPP and the data quality objectives of this investigation. The data are useable as presented in Table 2.

Results

No indication of a release of hazardous substance or petroleum products was encountered during the investigation. No analytes were detected in the surface soil samples at concentrations above the Tier II Industrial SRVs. Arsenic was detected at NHR-SS16 at 10 mg/kg, which is slightly higher than the Tier I SRVs for unrestricted use. Surface soil data are summarized in Table 2 and are described below:

- Arsenic concentrations range from 2.3 to 6.1 mg/kg, except at NHR-SS16 which reported a concentration of 10 mg/kg. The Tier I and Tier II SRVs for arsenic are 9 and 20 mg/kg, respectively.
- Barium concentrations range from 22 to 140 mg/kg. The Tier I and Tier II SRVs for barium are 1,100 and 18,000 mg/kg, respectively.
- Chromium concentrations range from 7.8 to 19 mg/kg. The Tier I and Tier II SRVs for chromium are 44,000 and 100,000 mg/kg, respectively.
- Lead concentrations range from 3.3 to 14 mg/kg. The Tier I and Tier II SRVs for lead are 300 and 700 mg/kg, respectively.
- Cadmium, mercury, selenium, silver, SVOCs (including PAHs/B(a)P), and DRO were not detected.

Summary

Based on the Phase II investigation results, use of the soil on and adjacent to the former GOW railroad track is appropriate for the NHR. The results from this and the previous investigation indicated soils at the NHR meet Tier II Industrial SRVs. SVOCs were not detected during this investigation meaning the

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B(a)P equivalent detection slightly above the Tier I SRV for unrestricted use at SOC1-SS2B has a limited horizontal and vertical extent. Arsenic concentrations are below the Tier II Industrial SRV.

References Cited

- Barr, 2009a. Phase II Investigation Report, Sites of Concern 1-3 and 6-8, UMore Mining Area, Dakota County, Minnesota.
- Barr, 2009b. Sampling and Analysis Plan, Phase II Investigation Work Plan, Sites of Concern 1-3 and 6-8, UMore Mining Area, Dakota County, Minnesota.

Attachments:

Table 1 - Investigation Location Summary

Table 2 - Soil Data Summary

Figure 1 - Property Location

Figures 2A - Sample Locations (on 1945 photo backgrounds)

Figures 2B - Sample Locations (on 2012 photo backgrounds)

Laboratory Report #1302545, Legend Technical Services, Inc

Excerpt from Phase II Investigation Report, Sites of Concern 1-3 and 6-8, UMore Mining Area, Dakota County, Minnesota.

Attachments

Table 1
Investigation Location Summary
Phase II Investigation: North Haul Road
UMore Mining Area
Dakota County, Minnesota

Location Number	Date	Coordinates ¹		Bottom Depth (feet bgs)	Maximum Soil Vapor Headspace (ppm)
		Northing (meters)	Easting (meters)		
Surface Soil Samples					
NHR-SS1	6/5/2013	492516.2	4953547.4	1.5	<1
NHR-SS2	6/5/2013	491976.4	4953542.3	0.5	<1
NHR-SS3	6/5/2013	492059.1	4953558.8	0.5	<1
NHR-SS4	6/5/2013	492167.6	4953552.8	0.5	<1
NHR-SS5	6/5/2013	492228.4	4953556.2	0.5	<1
NHR-SS6	6/5/2013	492312.0	4953549.5	0.5	<1
NHR-SS7	6/5/2013	492395.7	4953557.6	0.5	<1
NHR-SS8	6/5/2013	492501.3	4953547.6	0.5	<1
NHR-SS9	6/5/2013	492527.0	4953553.0	0.5	<1
NHR-SS10	6/5/2013	492648.0	4953550.9	0.5	<1
NHR-SS11	6/5/2013	492732.5	4953537.9	0.5	<1
NHR-SS12	6/5/2013	492817.3	4953555.0	0.5	<1
NHR-SS13	6/5/2013	492901.6	4953537.1	0.5	<1
NHR-SS14	6/5/2013	492985.3	4953549.6	0.5	<1
NHR-SS15	6/5/2013	493070.4	4953535.8	0.5	<1
NHR-SS16	6/5/2013	493153.5	4953552.1	0.5	<1

Notes:

¹ Northing and easting measured relative to Universal Transverse Mercator (UTM) Coordinates (horizontal datum NAD 83(1996))

ppm = parts per million

Table 2
Soil Data Summary
June 2013 Sampling Event
UMore Remedial Investigation
Dakota County, Minnesota

Parameter	Analysis Location	Location		NHR-SS1 6/5/2013	NHR-SS2 6/5/2013 0 - 0.5 ft	NHR-SS3 6/5/2013 0 - 0.5 ft	NHR-SS4 6/5/2013 0 - 0.5 ft	NHR-SS5 6/5/2013 0 - 0.5 ft	NHR-SS6 6/5/2013 0 - 0.5 ft	NHR-SS7 6/5/2013 0 - 0.5 ft	NHR-SS8 6/5/2013 0 - 0.5 ft	
		Date										
		1 - 1.5 ft	1 - 1.5 ft									
Depth	Sample Type	N	FD									
		N	N									
		MN Tier 1 SRV 06/22/2009	MN Tier 2 Industrial SRV 06/22/2009									
Effective Date		06/22/2009	06/22/2009									
Exceedance Key		Bold	No Exceed									
General Parameters												
Solids, percent	Lab			86 %	85 %	84 %	90 %	89 %	87 %	94 %	86 %	
Metals												
Arsenic	Lab	9 mg/kg	20 mg/kg	5.9 mg/kg	4.9 mg/kg	4.6 mg/kg	2.3 mg/kg	3.0 mg/kg	3.1 mg/kg	2.3 mg/kg	3.4 mg/kg	
Barium	Lab	1100 mg/kg	18000 mg/kg	81 mg/kg	65 mg/kg	69 mg/kg	29 mg/kg	52 mg/kg	46 mg/kg	26 mg/kg	56 mg/kg	
Cadmium	Lab	25 mg/kg	200 mg/kg	< 0.29 mg/kg	< 0.28 mg/kg	< 0.30 mg/kg	< 0.28 mg/kg	< 0.28 mg/kg	< 0.29 mg/kg	< 0.25 mg/kg	< 0.29 mg/kg	
Chromium	Lab	44000 CR mg/kg	100000 CR mg/kg	16 mg/kg	14 mg/kg	12 mg/kg	10 mg/kg	10 mg/kg	7.9 mg/kg	7.8 mg/kg	12 mg/kg	
Lead	Lab	300 mg/kg	700 mg/kg	8.0 mg/kg	7.6 mg/kg	11 mg/kg	7.1 mg/kg	7.7 mg/kg	10 mg/kg	3.5 mg/kg	6.9 mg/kg	
Mercury	Lab	0.5 mg/kg	1.5 mg/kg	< 0.12 mg/kg	< 0.12 mg/kg	< 0.12 mg/kg	< 0.11 mg/kg	< 0.11 mg/kg	< 0.11 mg/kg	< 0.11 mg/kg	< 0.12 mg/kg	
Selenium	Lab	160 mg/kg	1300 mg/kg	< 1.2 mg/kg	< 1.1 mg/kg	< 1.2 mg/kg	< 1.1 mg/kg	< 1.1 mg/kg	< 1.1 mg/kg	< 1.1 mg/kg	< 1.2 mg/kg	
Silver	Lab	160 mg/kg	1300 mg/kg	< 0.29 mg/kg	< 0.28 mg/kg	< 0.30 mg/kg	< 0.28 mg/kg	< 0.28 mg/kg	< 0.29 mg/kg	< 0.25 mg/kg	< 0.29 mg/kg	
SVOCS												
Benz(a)anthracene	Lab	T	T	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
Benz(a)pyrene	Lab	T	T	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
Benz(b)fluoranthene	Lab	T	T	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
Benz(k)fluoranthene	Lab	T	T	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
Chrysene	Lab	T	T	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
Dibenz(a,h)anthracene	Lab	T	T	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
Indeno(1,2,3-cd)pyrene	Lab	T	T	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
B(a)P Equivalent, non-detects at 0.2002 formula	Bair	2 T mg/kg	3 T mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	
1,2,4-Trichlorobenzene	Lab	200 mg/kg	985 mg/kg	< 0.39 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
1,2-Dichlorobenzene	Lab	26 mg/kg	75 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
1,3-Dichlorobenzene	Lab	26 mg/kg	200 mg/kg	< 0.39 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
1,4-Dichlorobenzene	Lab	30 mg/kg	50 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
2,3,4,6-Tetrachlorophenol	Lab	636 mg/kg	3700 mg/kg	< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2,4,5-Trichlorophenol	Lab	1920 mg/kg	10600 mg/kg	< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2,4,6-Trichlorophenol	Lab	595 mg/kg	1060 mg/kg	< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2,4-Dichlorophenol	Lab	48 mg/kg	230 mg/kg	< 0.78 mg/kg	< 0.79 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2,4-Dimethylphenol	Lab	390 mg/kg	1925 mg/kg	< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2,4-Dinitrophenol	Lab			< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2,4-Dinitrotoluene	Lab	50 mg/kg	355 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
2,6-Dichlorophenol	Lab			< 0.78 mg/kg	< 0.79 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2,6-Dinitrotoluene	Lab	25 mg/kg	175 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
2-Chloronaphthalene	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
2-Chlorophenol	Lab			< 0.78 mg/kg	< 0.79 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
2-Methyl-4,6-dinitrophenol	Lab			< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
1-Methylnaphthalene	Lab	100 mg/kg	369 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	
2-Methylnaphthalene (o-cresol)	Lab	75 mg/kg	352 mg/kg	< 0.78 mg/kg	< 0.79 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	
4-Nitroaniline	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	

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Table 2
Soil Data Summary
June 2013 Sampling Event
UMore Remedial Investigation
Dakota County, Minnesota

Parameter	Analysis Location	Location		NHR-SS1 6/5/2013	NHR-SS2 6/5/2013 0 - 0.5 ft	NHR-SS3 6/5/2013 0 - 0.5 ft	NHR-SS4 6/5/2013 0 - 0.5 ft	NHR-SS5 6/5/2013 0 - 0.5 ft	NHR-SS6 6/5/2013 0 - 0.5 ft	NHR-SS7 6/5/2013 0 - 0.5 ft	NHR-SS8 6/5/2013 0 - 0.5 ft
		Date									
		1 - 1.5 ft	1 - 1.5 ft								
Depth	Sample Type	N		FD		N		N		N	
		1 - 1.5 ft	FD	1 - 1.5 ft	FD	1 - 1.5 ft	FD	1 - 1.5 ft	FD	1 - 1.5 ft	FD
		MN Tier 1 SRV 06/22/2009	MN Tier 2 Industrial SRV 06/22/2009								
Effective Date		Bold	No Exceed								
2-Nitrophenol	Lab			< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg
3,3'-Dichlorobenzidine	Lab	25 mg/kg		< 1.9 mg/kg	< 1.9 mg/kg	< 1.9 mg/kg	< 1.8 mg/kg	< 1.8 mg/kg	< 1.8 mg/kg	< 1.7 mg/kg	< 1.9 mg/kg
3,4-Methylphenol (m,p cresols)	Lab	10 MP mg/kg		< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg
3-Nitroaniline	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
4-Bromophenyl phenyl ether	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
4-Chloro-3-methylphenol	Lab			< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg
4-Chloroaniline	Lab			< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg
4-Chlorophenyl phenyl ether	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
4-Nitroaniline	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Acenaphthene	Lab			< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg
Acenaphthylene	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Aniline	Lab			< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg
Anthracene	Lab	7880 mg/kg	45400 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Azobenzene	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Benzidine	Lab			< 2.9 mg/kg	< 3.0 mg/kg	< 3.0 mg/kg	< 2.8 mg/kg	< 2.8 mg/kg	< 2.9 mg/kg	< 2.7 mg/kg	< 2.9 mg/kg
Benzol(g,h,i)perylene	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Benzoic acid	Lab	50000 mg/kg	100000 mg/kg	< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Benzyl alcohol	Lab	8700 mg/kg	56000 mg/kg	< 0.78 mg/kg	< 0.81 mg/kg	< 0.80 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg
Bis(2-chloroethoxy)methane	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Bis(2-chloroethyl)ether	Lab	2.5 mg/kg	5 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Bis(2-chloroisopropyl)ether	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Bis(2-ethylhexyl)phthalate	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Butyl benzyl phthalate	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Carbazole	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Dibenzofuran	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Diethyl phthalate	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Dimethyl phthalate	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Di-n-butyl phthalate	Lab	2440 mg/kg	16300 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Di-n-octyl phthalate	Lab	520 mg/kg	3700 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Fluoranthene	Lab	1080 mg/kg	6800 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Fluorene	Lab	850 mg/kg	4120 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Hexachlorobenzene	Lab	5 mg/kg	9 mg/kg	< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Hexachlorobutadiene	Lab	6 mg/kg	37 mg/kg	< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Hexachlorocyclopentadiene	Lab	2 mg/kg	6 mg/kg	< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Hexachloroethane	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
Isophorone	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
1,2,3,4-Tetrahalobenzene	Lab	10 mg/kg	28 mg/kg	< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
1,2,3,4-Tetrahalobenzene	Lab			< 0.38 mg/kg	< 0.40 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg
1,1-Dinitrosodimethylamine	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg

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Table 2
Soil Data Summary
June 2013 Sampling Event
UMore Remedial Investigation
Dakota County, Minnesota

Parameter	Analysis Location	Location	NHR-SS1		NHR-SS2	NHR-SS3	NHR-SS4	NHR-SS5	NHR-SS6	NHR-SS7	NHR-SS8	
			6/5/2013									
			1 - 1.5 ft	1 - 1.5 ft								
Date		Depth		Sample Type		N		FD		N		
Effective Date		MN Tier 1 SRV	06/22/2009		MN Tier 2 Industrial SRV	06/22/2009						
Exceedance Key			Bold		No Exceed							
N-Nitrosodi-n-propylamine	Lab		0.7 mg/kg	< 0.38 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	< 0.38 mg/kg
N-Nitrosodiphenylamine	Lab		1950 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	< 0.38 mg/kg
Pentachlorophenol	Lab		80 mg/kg	< 0.78 mg/kg	< 0.81 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	< 0.78 mg/kg
Phenanthrene	Lab			< 0.38 mg/kg	< 0.39 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	< 0.38 mg/kg
Phenol	Lab		1500 mg/kg	< 0.78 mg/kg	< 0.81 mg/kg	< 0.74 mg/kg	< 0.75 mg/kg	< 0.75 mg/kg	< 0.77 mg/kg	< 0.71 mg/kg	< 0.78 mg/kg	< 0.78 mg/kg
Pyrene	Lab		890 mg/kg	< 0.38 mg/kg	< 0.40 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.37 mg/kg	< 0.38 mg/kg	< 0.35 mg/kg	< 0.38 mg/kg	< 0.38 mg/kg
Total Petroleum Hydrocarbons				< 5.1 mg/kg	< 4.9 mg/kg	< 4.9 mg/kg	< 4.9 mg/kg	< 5.7 mg/kg	< 4.6 mg/kg	< 4.3 mg/kg	< 5.5 mg/kg	< 5.5 mg/kg
Diesel Range Organics-silica gel cleanup	Lab											

Table 2
Soil Data Summary
June 2013 Sampling Event
UMore Remedial Investigation
Dakota County, Minnesota

Parameter	Analysis Location	Location		NHR-SS9	NHR-SS10	NHR-SS11	NHR-SS12	NHR-SS13	NHR-SS14	NHR-SS15	NHR-SS16
		Date	Depth								
Effective Date		MN Tier 1 SRV	MN Tier 2 Industrial SRV	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/5/2013
Exceedance Key		06/22/2009	06/22/2009	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft	0 - 0.5 ft
General Parameters		Bold	No Exceed								
Solids, percent	Lab			93 %	97 %	91 %	85 %	86 %	97 %	81 %	83 %
Metals											
Arsenic	Lab	9 mg/kg	20 mg/kg	3.0 mg/kg	2.7 mg/kg	3.7 mg/kg	4.5 mg/kg	4.6 mg/kg	2.4 mg/kg	6.1 mg/kg	10 mg/kg
Barium	Lab	1100 mg/kg	18000 mg/kg	35 mg/kg	22 mg/kg	47 mg/kg	80 mg/kg	62 mg/kg	22 mg/kg	140 mg/kg	57 mg/kg
Cadmium	Lab	25 mg/kg	200 mg/kg	< 0.27 mg/kg	< 0.24 mg/kg	< 0.26 mg/kg	< 0.28 mg/kg	< 0.29 mg/kg	< 0.26 mg/kg	< 0.31 mg/kg	< 0.28 mg/kg
Chromium	Lab	44000 CR mg/kg	100000 CR mg/kg	15 mg/kg	8.1 mg/kg	11 mg/kg	14 mg/kg	15 mg/kg	12 mg/kg	19 mg/kg	12 mg/kg
Lead	Lab	300 mg/kg	700 mg/kg	5.5 mg/kg	3.3 mg/kg	5.8 mg/kg	9.0 mg/kg	8.1 mg/kg	4.2 mg/kg	11 mg/kg	14 mg/kg
Mercury	Lab	0.5 mg/kg	1.5 mg/kg	< 0.11 mg/kg	< 0.10 mg/kg	< 0.11 mg/kg	< 0.12 mg/kg	< 0.12 mg/kg	< 0.10 mg/kg	< 0.12 mg/kg	< 0.12 mg/kg
Selenium	Lab	160 mg/kg	1300 mg/kg	< 1.1 mg/kg	< 0.98 mg/kg	< 1.0 mg/kg	< 1.1 mg/kg	< 1.2 mg/kg	< 1.0 mg/kg	< 1.2 mg/kg	< 1.1 mg/kg
Silver	Lab	160 mg/kg	1300 mg/kg	< 0.27 mg/kg	< 0.24 mg/kg	< 0.26 mg/kg	< 0.28 mg/kg	< 0.29 mg/kg	< 0.26 mg/kg	< 0.31 mg/kg	< 0.28 mg/kg
SVOCS											
Benzo(a)anthracene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Benzo(a)pyrene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Benzo(b)fluoranthene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Benzo(k)fluoranthene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Chrysene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Dibenz(a,h)anthracene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Indeno(1,2,3-cd)pyrene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Indeno(1,2,3-cd)pyrene	Lab	T	T	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
B(a)P Equivalent, non-detects at 0.2002 formula	Bair										
Calculation		2 T mg/kg	3 T mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg	ND mg/kg
1,2,4-Trichlorobenzene	Lab	200 mg/kg	985 mg/kg	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
1,2-Dichlorobenzene	Lab	26 mg/kg	75 mg/kg	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
1,3-Dichlorobenzene	Lab	26 mg/kg	200 mg/kg	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
1,4-Dichlorobenzene	Lab	30 mg/kg	50 mg/kg	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
2,3,4,6-Tetrachlorophenol	Lab	636 mg/kg	3700 mg/kg	< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2,4,5-Trichlorophenol	Lab	1920 mg/kg	10600 mg/kg	< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2,4,6-Trichlorophenol	Lab	595 mg/kg	1060 mg/kg	< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2,4-Dichlorophenol	Lab	48 mg/kg	230 mg/kg	< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2,4-Dimethylphenol	Lab	390 mg/kg	1925 mg/kg	< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2,4-Dinitrophenol	Lab			< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2,4-Dinitrotoluene	Lab	50 mg/kg	355 mg/kg	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
2,6-Dichlorophenol	Lab			< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2,6-Dinitrotoluene	Lab			< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
2-Chloronaphthalene	Lab	25 mg/kg	175 mg/kg	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
2-Chlorophenol	Lab			< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2-Methyl-4,6-dinitrophenol	Lab			< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2-Methylnaphthalene	Lab	100 mg/kg	369 mg/kg	< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
2-Methylphenol (o-cresol)	Lab	75 mg/kg	352 mg/kg	< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
2-Nitroaniline	Lab			< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg

Table 2
Soil Data Summary
June 2013 Sampling Event
UMore Remedial Investigation
Dakota County, Minnesota

Parameter	Analysis Location	MN Tier 1 SRV 06/22/2009	MN Tier 2 Industrial SRV 06/22/2009	Sample Type	NHR-SS9 6/5/2013 0 - 0.5 ft N	NHR-SS10 6/5/2013 0 - 0.5 ft N	NHR-SS11 6/5/2013 0 - 0.5 ft N	NHR-SS12 6/5/2013 0 - 0.5 ft N	NHR-SS13 6/5/2013 0 - 0.5 ft N	NHR-SS14 6/5/2013 0 - 0.5 ft N	NHR-SS15 6/5/2013 0 - 0.5 ft N	NHR-SS16 6/5/2013 0 - 0.5 ft N
Effective Date												
Exceedance Key												
N-Nitrosodi-n-propylamine	Lab	0.7 mg/kg	No Exceed		< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
N-Nitrosodiphenylamine	Lab	1950 mg/kg	3720 mg/kg		< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Pentachlorophenol	Lab	80 mg/kg	120 mg/kg		< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
Phenanthrene	Lab				< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Phenol	Lab	1500 mg/kg	20203 mg/kg		< 0.72 mg/kg	< 0.69 mg/kg	< 0.74 mg/kg	< 0.79 mg/kg	< 0.78 mg/kg	< 0.69 mg/kg	< 0.83 mg/kg	< 0.81 mg/kg
Pyrene	Lab	890 mg/kg	5800 mg/kg		< 0.35 mg/kg	< 0.34 mg/kg	< 0.36 mg/kg	< 0.39 mg/kg	< 0.38 mg/kg	< 0.34 mg/kg	< 0.41 mg/kg	< 0.40 mg/kg
Total Petroleum Hydrocarbons												
Diesel Range Organics-silica gel cleanup	Lab				< 4.2 mg/kg	< 3.9 mg/kg	< 3.2 mg/kg	< 3.4 mg/kg	< 4.5 mg/kg	< 2.9 mg/kg	< 5.8 mg/kg	< 3.8 mg/kg

Data Footnotes and Qualifiers

Footnote	
--	Not analyzed/not available.
N	Sample Type: Normal
FD	Sample Type: Field Duplicate
NA	NA (not applicable) indicates that a fractional portion of the sample is not part of the analytical testing or field collection procedures.
ND	Not detected.
TIC	Tentatively identified compound
Validated	Laboratory data has been evaluated following Barr QA/QC procedures and/or project-specific data review requirements. Field data has been verified for transcription errors, consistency and completeness. Data transferred from the previous database (9/2009) were categorized as validated, but may be comprised of any one of the following data status categories: Validated, SSource, No QC or Legacy.
No QC	Laboratory data has been excluded from Barr QA/QC procedures.
SSource	Laboratory and/or field data obtained from a secondary source external to Barr. Second source QA/QC evaluation procedures may or may not have been performed beyond the original data generator.
Legacy	Historical laboratory data (internal at Barr). QA/QC evaluation procedures may or may not have been performed beyond the original data generator

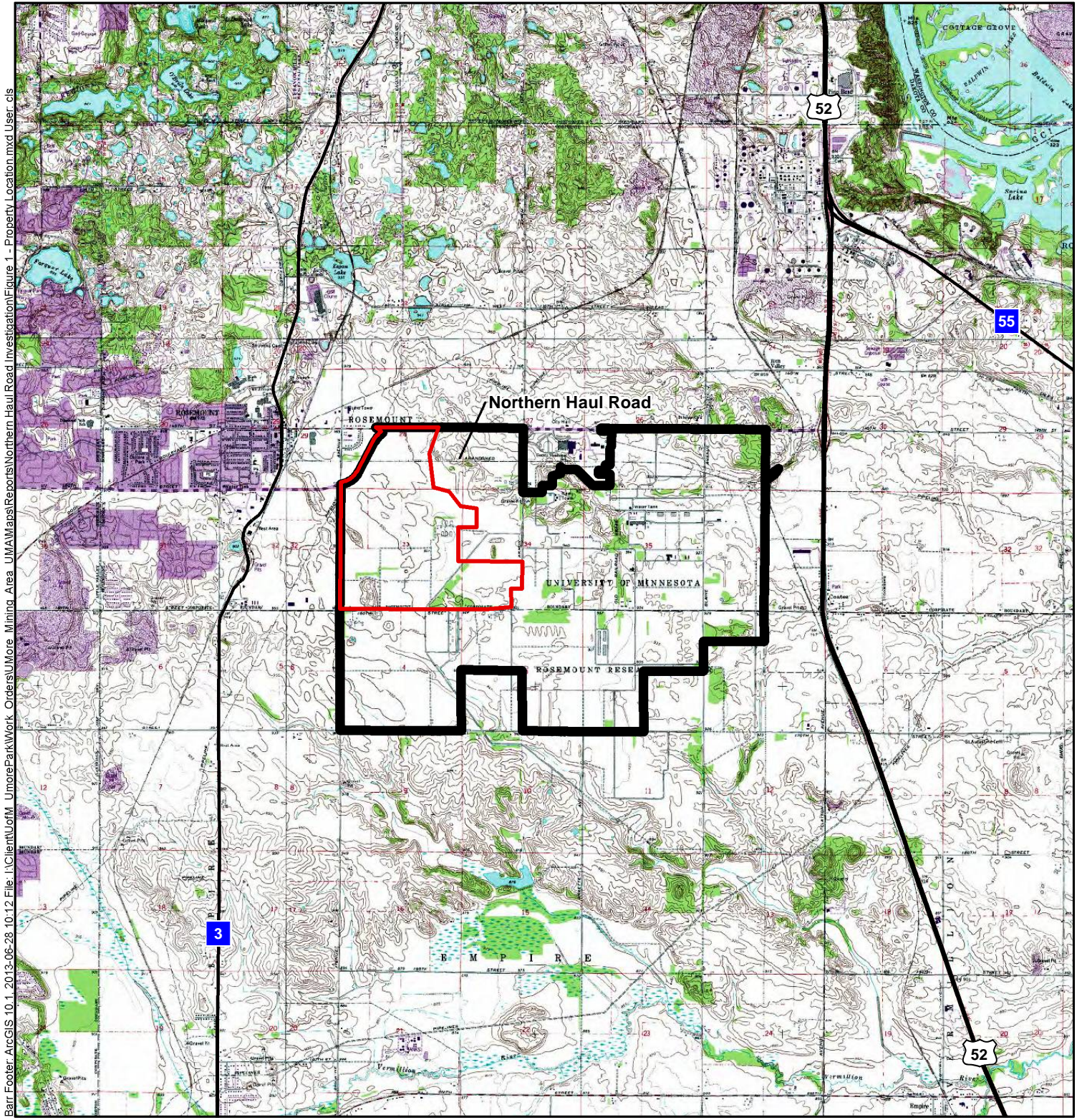
Qualifier	
a	Estimated value, calculated using some or all values that are estimates.
b	Potential false positive value based on blank data validation procedures.
c	Coeluting compound.
e	Estimated value, exceeded the instrument calibration range.
f	Sample was collected at a flowrate exceeding the recommended rate of 200 mL/minute.
h	EPA recommended sample preservation, extraction or analysis holding time was exceeded.
i	Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria.
j	Reported value is less than the stated laboratory quantitation limit and is considered an estimated value.
p	Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns.
pp	Small peak in chromatogram below method detection limit.
r	The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms.
s	Potential false positive value based on statistical analysis of blank sample data.
t	Sample positive for total coliforms but negative for <i>E. coli</i> .
v	Sample was collected under a vacuum of greater than XX inches of mercury.
*	Estimated value, QA/QC criteria not met.
**	Unusable value, QA/QC criteria not met.
AT	Sample chromatogram is noted to be atypical of a petroleum product.
EMPC	Estimated maximum possible concentration.
BQA	Barr-applied project specific qualifier: extraction and/or analyses conducted using an alternative method and/or procedure.
BQC	Barr-applied project specific qualifier: plant shut down.
BQD	Barr-applied project specific qualifier: equipment malfunction.

Data Footnotes and Qualifiers

BQE	Barr-applied project specific qualifier: equipment adjustment.
BQM	Barr-applied project specific qualifier: manual measurement.
BQN	Barr-applied project specific qualifier: unable to be sampled or measured due to various reasons.
BQP	Barr-applied project specific qualifier: atypical chromatographic pattern.
BQQ	Barr-applied project specific qualifier: some aspect of QA/QC was not met.
BQR	Barr-applied project specific qualifier: location was re-sampled.
BQS	Barr-applied project specific qualifier: data is considered suspect.
BQT	Barr-applied project specific qualifier: summed value not displayed due to insufficient field length.
BQU	Barr-applied project specific qualifier: historical qualifier - definition unknown.
BQV	Barr-applied project specific qualifier: estimated value.
BQX	Barr-applied project specific qualifier: see notes for qualifier definition.
BQZ	Barr-applied project specific qualifier: data is considered unusable.

Action Level Qualifiers/Footnotes

Qualifier		Definition
MN Tier 1 and Tier 2 Industrial SRVs	CR	Value represents the criteria for Chromium, trivalent.
	DI	Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents.
	M	Value represents the criteria for mixed Xylenes.
	MP	Value represents the criteria for p-cresol.
	T	Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2,3-cd)pyrene.



Barr Footer ArcGIS 10.1.2013-06-28 10:12 File: I:\Client\UofM_UmorePark\Work_Orders\Umore Mining Area_UMA\Map\Reports\Northern Haul Road Investigation\Figure 1 - Property Location.mxd User: cjs

- UMore Mining Area (UMA) - Rosemount Portion
- UMore Park Boundary

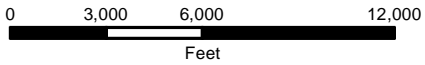


Figure 1

PROPERTY LOCATION
 North Haul Road
 Phase II Work Plan
 Dakota County, MN



- 2013 Investigation
- Surface Soil Sample
 - Surface Soil Sample
 - Soil Boring
 - Surface Soil Sample
 - UMore Mining Area (UMA)
 - UMore Park Boundary

Note: No analyses exceeded Tier 2 Industrial SRVs.
 Data Sources: Barr Engineering Company, University of Minnesota.
 Background: 1945 Markhard aerial photos obtained from Aero-Metric Inc.

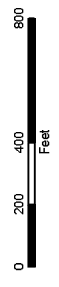


Figure 2A
 SAMPLE LOCATIONS
 North Haul Road
 Phase II Workplan
 Dakota County, MN





- 2013 Investigation
- Surface Soil Sample
 - Soil Boring
 - Surface Soil Sample
- 2009 Investigation (Barr, 2009a)
- Soil Boring
 - Surface Soil Sample
- UMA Mining Area (UMA)
- UMore Park Boundary

Note: No analyses exceeded Tier 2 Industrial SRVs.
 Data Sources: Barr Engineering Company, University of Minnesota.
 Background: 2009 Aerials Express (Twin Cities)



Figure 2B
 SAMPLE LOCATIONS
 North Haul Road
 Phase II Workplan
 Dakota County, MN





88 Empire Drive
St Paul, MN 55103
Tel: 651-642-1150
Fax: 651-642-1239

July 10, 2013

REVISION

Ms. Andrea Nord
Barr Engineering Co.
4700 W 77th St
Minneapolis, MN 55435

Work Order Number: 1302545
RE: 23191170

This is a revised report. The details of the revision are listed in the case narrative on the following page.

Enclosed are the results of analyses for samples received by the laboratory on 06/06/13. If you have any questions concerning this report, please feel free to contact me.

Results are not blank corrected unless noted within the report. Additionally, all QC results meet requirements unless noted.

All samples will be retained by Legend Technical Services, Inc., unless consumed in the analysis, at ambient conditions for 30 days from the date of this report and then discarded unless other arrangements are made. All samples were received in acceptable condition unless otherwise noted.

All test results and QC meet requirements of the 2003 NELAC standard.

MDH (NELAC) Certification #027-123-295

Prepared by,
LEGEND TECHNICAL SERVICES, INC

A handwritten signature in black ink, appearing to read "Bach Pham".

Bach Pham
Client Manager II
bpham@legend-group.com

A handwritten signature in black ink, appearing to read "Tyler Jones".

Tyler Jones
Chemist I
tjones@legend-group.com

Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NHR-SS2_0-0.5	1302545-01	Soil	06/05/13 10:00	06/06/13 10:55
NHR-SS3_0-0.5	1302545-02	Soil	06/05/13 10:25	06/06/13 10:55
NHR-SS4_0-0.5	1302545-03	Soil	06/05/13 10:45	06/06/13 10:55
NHR-SS5_0-0.5	1302545-04	Soil	06/05/13 11:05	06/06/13 10:55
NHR-SS7_0-0.5	1302545-05	Soil	06/05/13 11:25	06/06/13 10:55
NHR-SS8_0-0.5	1302545-06	Soil	06/05/13 11:55	06/06/13 10:55
NHR-SS9_0-0.5	1302545-07	Soil	06/05/13 12:20	06/06/13 10:55
NHR-SS1_1-1.5	1302545-08	Soil	06/05/13 12:50	06/06/13 10:55
M-1	1302545-09	Soil	06/05/13 00:00	06/06/13 10:55
Equipment Blank	1302545-10	Water	06/05/13 13:15	06/06/13 10:55
NHR-SS6_0-0.5	1302545-11	Soil	06/05/13 14:30	06/06/13 10:55
NHR-SS10_0-0.5	1302545-12	Soil	06/05/13 14:55	06/06/13 10:55
NHR-SS11_0-0.5	1302545-13	Soil	06/05/13 15:15	06/06/13 10:55
NHR-SS12_0-0.5	1302545-14	Soil	06/05/13 15:30	06/06/13 10:55
NHR-SS13_0-0.5	1302545-15	Soil	06/05/13 15:50	06/06/13 10:55
NHR-SS14_0-0.5	1302545-16	Soil	06/05/13 16:14	06/06/13 10:55
NHR-SS15_0-0.5	1302545-17	Soil	06/05/13 16:30	06/06/13 10:55
NHR-SS16_0-0.5	1302545-18	Soil	06/05/13 16:50	06/06/13 10:55

Shipping Container Information

Cooler 1	Temperature (°C): 5.9	
Received on ice: Yes	Temperature blank was present	Received on ice pack: No
Received on melt water: No	Ambient: No	Acceptable (IH/ISO only): No
Custody seals: Yes		
Cooler 2	Temperature (°C): 4.2	
Received on ice: Yes	Temperature blank was present	Received on ice pack: No
Received on melt water: No	Ambient: No	Acceptable (IH/ISO only): No
Custody seals: Yes		



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Case Narrative:

The 8270 surrogate recovery for 2-fluorobiphenyl was below laboratory limits for samples NHR-SS1_1-1.5, NHR-SS6_0-6, NHR-SS11_0-6, NHR-SS13_0-7 and NHR-SS16_0-6. All surrogates were within limits in the B3F1004 batch QC.

The recoveries for the 8270 compounds phenol and 2,4-dinitrotoluene in the water batch B3F1118 MS/MSD and n-nitrosodi-n-propylamine in the MSD were outside laboratory limits. All spike compounds were within limits in the batch LCS. The MS/MSD source sample was not associated with this work order.

At the client's request, this report was revised on July 10, 2013 to change all sample IDs that end with 0-6 and 0-7 to end with 0-0.5 instead. This report supersedes the report dated June 14, 2013.



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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DRO/8015D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS2_0-0.5 (1302545-01) Soil Sampled: 06/05/13 10:00 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<5.6	5.6		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	94.6			70-130 %		"	"	"	"	
NHR-SS3_0-0.5 (1302545-02) Soil Sampled: 06/05/13 10:25 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<8.1	8.1		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	97.3			70-130 %		"	"	"	"	
NHR-SS4_0-0.5 (1302545-03) Soil Sampled: 06/05/13 10:45 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<4.9	4.9		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	95.1			70-130 %		"	"	"	"	
NHR-SS5_0-0.5 (1302545-04) Soil Sampled: 06/05/13 11:05 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<5.7	5.7		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	93.4			70-130 %		"	"	"	"	
NHR-SS7_0-0.5 (1302545-05) Soil Sampled: 06/05/13 11:25 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<4.3	4.3		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	93.5			70-130 %		"	"	"	"	
NHR-SS8_0-0.5 (1302545-06) Soil Sampled: 06/05/13 11:55 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<5.5	5.5		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	98.3			70-130 %		"	"	"	"	
NHR-SS9_0-0.5 (1302545-07) Soil Sampled: 06/05/13 12:20 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<4.2	4.2		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	93.2			70-130 %		"	"	"	"	
NHR-SS1_1-1.5 (1302545-08) Soil Sampled: 06/05/13 12:50 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<5.1	5.1		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	99.2			70-130 %		"	"	"	"	
M-1 (1302545-09) Soil Sampled: 06/05/13 00:00 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<4.9	4.9		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	100			70-130 %		"	"	"	"	
Equipment Blank (1302545-10) Water Sampled: 06/05/13 13:15 Received: 06/06/13 10:55										
Diesel Range Organics	<100	100	28	ug/L	1	B3F1214	06/12/13	06/13/13	WI(95) DRO	
Surrogate: Triacotane (C-30)	96.0			70-130 %		"	"	"	"	
NHR-SS6_0-0.5 (1302545-11) Soil Sampled: 06/05/13 14:30 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<4.6	4.6		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	102			70-130 %		"	"	"	"	



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DRO/8015D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS10_0-0.5 (1302545-12) Soil Sampled: 06/05/13 14:55 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<3.9	3.9		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	105			70-130 %		"	"	"	"	
NHR-SS11_0-0.5 (1302545-13) Soil Sampled: 06/05/13 15:15 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<3.2	3.2		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	100			70-130 %		"	"	"	"	
NHR-SS12_0-0.5 (1302545-14) Soil Sampled: 06/05/13 15:30 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<3.4	3.4		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	101			70-130 %		"	"	"	"	
NHR-SS13_0-0.5 (1302545-15) Soil Sampled: 06/05/13 15:50 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<4.5	4.5		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	94.8			70-130 %		"	"	"	"	
NHR-SS14_0-0.5 (1302545-16) Soil Sampled: 06/05/13 16:14 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<2.9	2.9		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	96.4			70-130 %		"	"	"	"	
NHR-SS15_0-0.5 (1302545-17) Soil Sampled: 06/05/13 16:30 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<5.8	5.8		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	98.0			70-130 %		"	"	"	"	
NHR-SS16_0-0.5 (1302545-18) Soil Sampled: 06/05/13 16:50 Received: 06/06/13 10:55										
DRO (Silica Gel Cleanup)	<3.8	3.8		mg/kg dry	1	B3F1009	06/10/13	06/12/13	WI(95)DRO(M)	
Surrogate: Triacotane (C-30) (Silica Gel)	102			70-130 %		"	"	"	"	

Barr Engineering Co.
 4700 W 77th St
 Minneapolis, MN 55435

Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

TOTAL METALS ANALYSIS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS2_0-0.5 (1302545-01) Soil Sampled: 06/05/13 10:00 Received: 06/06/13 10:55

Arsenic	4.9	0.55	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	65	1.1	0.061	mg/kg dry	1	"	"	"	"	
Cadmium	<0.28	0.28	0.036	mg/kg dry	1	"	"	"	"	
Chromium	14	0.55	0.15	mg/kg dry	1	"	"	"	"	
Lead	9.2	1.1	0.15	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.18	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.28	0.28	0.030	mg/kg dry	1	"	"	"	"	

NHR-SS3_0-0.5 (1302545-02) Soil Sampled: 06/05/13 10:25 Received: 06/06/13 10:55

Arsenic	4.6	0.60	0.15	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	69	1.2	0.065	mg/kg dry	1	"	"	"	"	
Cadmium	<0.30	0.30	0.039	mg/kg dry	1	"	"	"	"	
Chromium	12	0.60	0.16	mg/kg dry	1	"	"	"	"	
Lead	11	1.2	0.17	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.2	1.2	0.20	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.30	0.30	0.033	mg/kg dry	1	"	"	"	"	

NHR-SS4_0-0.5 (1302545-03) Soil Sampled: 06/05/13 10:45 Received: 06/06/13 10:55

Arsenic	2.3	0.56	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	29	1.1	0.061	mg/kg dry	1	"	"	"	"	
Cadmium	<0.28	0.28	0.037	mg/kg dry	1	"	"	"	"	
Chromium	10	0.56	0.15	mg/kg dry	1	"	"	"	"	
Lead	7.1	1.1	0.16	mg/kg dry	1	"	"	"	"	
Mercury	<0.11	0.11	0.019	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.18	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.28	0.28	0.031	mg/kg dry	1	"	"	"	"	

NHR-SS5_0-0.5 (1302545-04) Soil Sampled: 06/05/13 11:05 Received: 06/06/13 10:55

Arsenic	3.0	0.56	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	52	1.1	0.062	mg/kg dry	1	"	"	"	"	
Cadmium	<0.28	0.28	0.037	mg/kg dry	1	"	"	"	"	
Chromium	10	0.56	0.15	mg/kg dry	1	"	"	"	"	
Lead	7.7	1.1	0.16	mg/kg dry	1	"	"	"	"	
Mercury	<0.11	0.11	0.019	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.19	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.28	0.28	0.031	mg/kg dry	1	"	"	"	"	

NHR-SS7_0-0.5 (1302545-05) Soil Sampled: 06/05/13 11:25 Received: 06/06/13 10:55

Arsenic	2.3	0.50	0.13	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
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Barr Engineering Co.
4700 W 77th St
Minneapolis, MN 55435

Project: 23191170
Project Number: 23191170
Project Manager: Ms. Andrea Nord

Work Order #: 1302545
Date Reported: 07/10/13

TOTAL METALS ANALYSIS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS7_0-0.5 (1302545-05) Soil Sampled: 06/05/13 11:25 Received: 06/06/13 10:55

Barium	26	1.0	0.055	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Cadmium	<0.25	0.25	0.033	mg/kg dry	1	"	"	"	"	
Chromium	7.8	0.50	0.13	mg/kg dry	1	"	"	"	"	
Lead	3.5	1.0	0.14	mg/kg dry	1	"	"	"	"	
Mercury	<0.11	0.11	0.018	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.0	1.0	0.17	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.25	0.25	0.028	mg/kg dry	1	"	"	"	"	

NHR-SS8_0-0.5 (1302545-06) Soil Sampled: 06/05/13 11:55 Received: 06/06/13 10:55

Arsenic	3.4	0.58	0.15	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	56	1.2	0.064	mg/kg dry	1	"	"	"	"	
Cadmium	<0.29	0.29	0.038	mg/kg dry	1	"	"	"	"	
Chromium	12	0.58	0.16	mg/kg dry	1	"	"	"	"	
Lead	6.9	1.2	0.16	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.2	1.2	0.19	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.29	0.29	0.032	mg/kg dry	1	"	"	"	"	

NHR-SS9_0-0.5 (1302545-07) Soil Sampled: 06/05/13 12:20 Received: 06/06/13 10:55

Arsenic	3.0	0.54	0.13	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	35	1.1	0.059	mg/kg dry	1	"	"	"	"	
Cadmium	<0.27	0.27	0.035	mg/kg dry	1	"	"	"	"	
Chromium	15	0.54	0.14	mg/kg dry	1	"	"	"	"	
Lead	5.5	1.1	0.15	mg/kg dry	1	"	"	"	"	
Mercury	<0.11	0.11	0.018	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.18	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.27	0.27	0.030	mg/kg dry	1	"	"	"	"	

NHR-SS1_1-1.5 (1302545-08) Soil Sampled: 06/05/13 12:50 Received: 06/06/13 10:55

Arsenic	5.8	0.58	0.15	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	89	1.2	0.064	mg/kg dry	1	"	"	"	"	
Cadmium	<0.29	0.29	0.038	mg/kg dry	1	"	"	"	"	
Chromium	16	0.58	0.16	mg/kg dry	1	"	"	"	"	
Lead	8.0	1.2	0.16	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.2	1.2	0.19	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.29	0.29	0.032	mg/kg dry	1	"	"	"	"	

M-1 (1302545-09) Soil Sampled: 06/05/13 00:00 Received: 06/06/13 10:55

Arsenic	5.9	0.55	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	81	1.1	0.061	mg/kg dry	1	"	"	"	"	



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TOTAL METALS ANALYSIS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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M-1 (1302545-09) Soil Sampled: 06/05/13 00:00 Received: 06/06/13 10:55

Cadmium	<0.28	0.28	0.036	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Chromium	18	0.55	0.15	mg/kg dry	1	"	"	"	"	
Lead	7.6	1.1	0.15	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.18	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.28	0.28	0.030	mg/kg dry	1	"	"	"	"	

Equipment Blank (1302545-10) Water Sampled: 06/05/13 13:15 Received: 06/06/13 10:55

Arsenic	<0.010	0.010	0.0014	mg/L	1	B3F1114	06/11/13	06/11/13	EPA 6010C	
Barium	<0.020	0.020	0.0021	mg/L	1	"	"	"	"	
Cadmium	<0.0010	0.0010	0.00015	mg/L	1	"	"	"	"	
Chromium	<0.010	0.010	0.00015	mg/L	1	"	"	"	"	
Lead	<0.0030	0.0030	0.00058	mg/L	1	"	"	"	"	
Mercury	<0.00020	0.00020	0.000034	mg/L	1	B3F1401	06/14/13	06/14/13	EPA 7470A	
Selenium	<0.020	0.020	0.0040	mg/L	1	B3F1114	06/11/13	06/11/13	EPA 6010C	
Silver	<0.0050	0.0050	0.00031	mg/L	1	"	"	"	"	

NHR-SS6_0-0.5 (1302545-11) Soil Sampled: 06/05/13 14:30 Received: 06/06/13 10:55

Arsenic	3.1	0.57	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	46	1.1	0.063	mg/kg dry	1	"	"	"	"	
Cadmium	<0.29	0.29	0.038	mg/kg dry	1	"	"	"	"	
Chromium	7.9	0.57	0.15	mg/kg dry	1	"	"	"	"	
Lead	10	1.1	0.16	mg/kg dry	1	"	"	"	"	
Mercury	<0.11	0.11	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.19	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.29	0.29	0.032	mg/kg dry	1	"	"	"	"	

NHR-SS10_0-0.5 (1302545-12) Soil Sampled: 06/05/13 14:55 Received: 06/06/13 10:55

Arsenic	2.7	0.49	0.12	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	22	0.98	0.054	mg/kg dry	1	"	"	"	"	
Cadmium	<0.24	0.24	0.032	mg/kg dry	1	"	"	"	"	
Chromium	8.1	0.49	0.13	mg/kg dry	1	"	"	"	"	
Lead	3.3	0.98	0.14	mg/kg dry	1	"	"	"	"	
Mercury	<0.10	0.10	0.018	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<0.98	0.98	0.16	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.24	0.24	0.027	mg/kg dry	1	"	"	"	"	

NHR-SS11_0-0.5 (1302545-13) Soil Sampled: 06/05/13 15:15 Received: 06/06/13 10:55

Arsenic	3.7	0.52	0.13	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	47	1.0	0.057	mg/kg dry	1	"	"	"	"	
Cadmium	<0.26	0.26	0.034	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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TOTAL METALS ANALYSIS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS11_0-0.5 (1302545-13) Soil Sampled: 06/05/13 15:15 Received: 06/06/13 10:55										
Chromium	11	0.52	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Lead	5.8	1.0	0.14	mg/kg dry	1	"	"	"	"	
Mercury	<0.11	0.11	0.019	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.0	1.0	0.17	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.26	0.26	0.028	mg/kg dry	1	"	"	"	"	
NHR-SS12_0-0.5 (1302545-14) Soil Sampled: 06/05/13 15:30 Received: 06/06/13 10:55										
Arsenic	4.5	0.55	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	80	1.1	0.061	mg/kg dry	1	"	"	"	"	
Cadmium	<0.28	0.28	0.036	mg/kg dry	1	"	"	"	"	
Chromium	14	0.55	0.15	mg/kg dry	1	"	"	"	"	
Lead	9.0	1.1	0.15	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.18	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.28	0.28	0.030	mg/kg dry	1	"	"	"	"	
NHR-SS13_0-0.5 (1302545-15) Soil Sampled: 06/05/13 15:50 Received: 06/06/13 10:55										
Arsenic	4.6	0.58	0.15	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	62	1.2	0.064	mg/kg dry	1	"	"	"	"	
Cadmium	<0.29	0.29	0.038	mg/kg dry	1	"	"	"	"	
Chromium	15	0.58	0.16	mg/kg dry	1	"	"	"	"	
Lead	8.1	1.2	0.16	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.2	1.2	0.19	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.29	0.29	0.032	mg/kg dry	1	"	"	"	"	
NHR-SS14_0-0.5 (1302545-16) Soil Sampled: 06/05/13 16:14 Received: 06/06/13 10:55										
Arsenic	2.4	0.52	0.13	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	22	1.0	0.057	mg/kg dry	1	"	"	"	"	
Cadmium	<0.26	0.26	0.034	mg/kg dry	1	"	"	"	"	
Chromium	12	0.52	0.14	mg/kg dry	1	"	"	"	"	
Lead	4.2	1.0	0.14	mg/kg dry	1	"	"	"	"	
Mercury	<0.10	0.10	0.018	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.0	1.0	0.17	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.26	0.26	0.028	mg/kg dry	1	"	"	"	"	
NHR-SS15_0-0.5 (1302545-17) Soil Sampled: 06/05/13 16:30 Received: 06/06/13 10:55										
Arsenic	6.1	0.62	0.15	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	140	1.2	0.068	mg/kg dry	1	"	"	"	"	
Cadmium	<0.31	0.31	0.041	mg/kg dry	1	"	"	"	"	
Chromium	19	0.62	0.17	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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TOTAL METALS ANALYSIS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS15_0-0.5 (1302545-17) Soil Sampled: 06/05/13 16:30 Received: 06/06/13 10:55										
Lead	11	1.2	0.17	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Mercury	<0.12	0.12	0.021	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.2	1.2	0.20	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.31	0.31	0.034	mg/kg dry	1	"	"	"	"	
NHR-SS16_0-0.5 (1302545-18) Soil Sampled: 06/05/13 16:50 Received: 06/06/13 10:55										
Arsenic	10	0.57	0.14	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Barium	57	1.1	0.063	mg/kg dry	1	"	"	"	"	
Cadmium	<0.28	0.28	0.038	mg/kg dry	1	"	"	"	"	
Chromium	12	0.57	0.15	mg/kg dry	1	"	"	"	"	
Lead	14	1.1	0.16	mg/kg dry	1	"	"	"	"	
Mercury	<0.12	0.12	0.020	mg/kg dry	1	B3F0703	06/07/13	06/07/13	EPA 7471B	
Selenium	<1.1	1.1	0.19	mg/kg dry	1	B3F0713	06/07/13	06/10/13	EPA 6010C	
Silver	<0.28	0.28	0.031	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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PERCENT SOLIDS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS2_0-0.5 (1302545-01) Soil Sampled: 06/05/13 10:00 Received: 06/06/13 10:55										
% Solids	83			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS3_0-0.5 (1302545-02) Soil Sampled: 06/05/13 10:25 Received: 06/06/13 10:55										
% Solids	84			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS4_0-0.5 (1302545-03) Soil Sampled: 06/05/13 10:45 Received: 06/06/13 10:55										
% Solids	90			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS5_0-0.5 (1302545-04) Soil Sampled: 06/05/13 11:05 Received: 06/06/13 10:55										
% Solids	89			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS7_0-0.5 (1302545-05) Soil Sampled: 06/05/13 11:25 Received: 06/06/13 10:55										
% Solids	94			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS8_0-0.5 (1302545-06) Soil Sampled: 06/05/13 11:55 Received: 06/06/13 10:55										
% Solids	86			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS9_0-0.5 (1302545-07) Soil Sampled: 06/05/13 12:20 Received: 06/06/13 10:55										
% Solids	93			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS11_1-1.5 (1302545-08) Soil Sampled: 06/05/13 12:50 Received: 06/06/13 10:55										
% Solids	86			%	1	B3F1305	06/13/13	06/13/13	% calculation	
M-1 (1302545-09) Soil Sampled: 06/05/13 00:00 Received: 06/06/13 10:55										
% Solids	85			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS6_0-0.5 (1302545-11) Soil Sampled: 06/05/13 14:30 Received: 06/06/13 10:55										
% Solids	87			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS10_0-0.5 (1302545-12) Soil Sampled: 06/05/13 14:55 Received: 06/06/13 10:55										
% Solids	97			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS11_0-0.5 (1302545-13) Soil Sampled: 06/05/13 15:15 Received: 06/06/13 10:55										
% Solids	91			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS12_0-0.5 (1302545-14) Soil Sampled: 06/05/13 15:30 Received: 06/06/13 10:55										
% Solids	85			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS13_0-0.5 (1302545-15) Soil Sampled: 06/05/13 15:50 Received: 06/06/13 10:55										
% Solids	86			%	1	B3F1305	06/13/13	06/13/13	% calculation	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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PERCENT SOLIDS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS14_0-0.5 (1302545-16) Soil Sampled: 06/05/13 16:14 Received: 06/06/13 10:55										
% Solids	97			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS15_0-0.5 (1302545-17) Soil Sampled: 06/05/13 16:30 Received: 06/06/13 10:55										
% Solids	81			%	1	B3F1305	06/13/13	06/13/13	% calculation	
NHR-SS16_0-0.5 (1302545-18) Soil Sampled: 06/05/13 16:50 Received: 06/06/13 10:55										
% Solids	83			%	1	B3F1305	06/13/13	06/13/13	% calculation	



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Barr Engineering Co.
 4700 W 77th St
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Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS2_0-0.5 (1302545-01) Soil Sampled: 06/05/13 10:00 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.40	0.40	0.030	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.40	0.40	0.033	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.40	0.40	0.040	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.40	0.40	0.029	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.40	0.40	0.028	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.81	0.81	0.073	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.81	0.81	0.035	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.81	0.81	0.067	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.81	0.81	0.064	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.81	0.81	0.17	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.81	0.81	0.028	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.40	0.40	0.039	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.81	0.81	0.065	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.40	0.40	0.061	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.81	0.81	0.067	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.81	0.81	0.048	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.81	0.81	0.073	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.81	0.81	0.025	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.096	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.40	0.40	0.030	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.81	0.81	0.061	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.81	0.81	0.075	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.81	0.81	0.034	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.40	0.40	0.030	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.81	0.81	0.087	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.40	0.40	0.040	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Aniline	<0.81	0.81	0.047	mg/kg dry	1	"	"	"	"	
Anthracene	<0.40	0.40	0.031	mg/kg dry	1	"	"	"	"	
Benzidine	<3.0	3.0	0.086	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.40	0.40	0.045	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.40	0.40	0.041	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.40	0.40	0.033	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS2_0-0.5 (1302545-01) Soil Sampled: 06/05/13 10:00 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.40	0.40	0.040	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.40	0.40	0.029	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.81	0.81	0.24	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.40	0.40	0.041	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.40	0.40	0.042	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Carbazole	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.40	0.40	0.028	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.40	0.40	0.042	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.40	0.40	0.039	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.40	0.40	0.045	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Fluorene	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.40	0.40	0.033	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.40	0.40	0.083	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Isophorone	<0.40	0.40	0.031	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.40	0.40	0.030	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.40	0.40	0.029	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.40	0.40	0.018	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.81	0.81	0.078	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.40	0.40	0.031	mg/kg dry	1	"	"	"	"	
Phenol	<0.81	0.81	0.060	mg/kg dry	1	"	"	"	"	
Pyrene	<0.40	0.40	0.040	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	85.8			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	60.2			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	57.5			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	67.2			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	69.6			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	60.3			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS3_0-0.5 (1302545-02) Soil Sampled: 06/05/13 10:25 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.39	0.39	0.030	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.39	0.39	0.027	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.80	0.80	0.073	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.80	0.80	0.035	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.80	0.80	0.067	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.80	0.80	0.063	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.80	0.80	0.17	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.80	0.80	0.027	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.39	0.39	0.038	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.80	0.80	0.064	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.39	0.39	0.061	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.80	0.80	0.067	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.80	0.80	0.048	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.80	0.80	0.073	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.80	0.80	0.025	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.095	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.39	0.39	0.030	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.80	0.80	0.061	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.80	0.80	0.074	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.80	0.80	0.033	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.39	0.39	0.030	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.80	0.80	0.086	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Aniline	<0.80	0.80	0.046	mg/kg dry	1	"	"	"	"	
Anthracene	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Benzidine	<3.0	3.0	0.085	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.39	0.39	0.044	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.39	0.39	0.040	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS3_0-0.5 (1302545-02) Soil Sampled: 06/05/13 10:25 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.39	0.39	0.039	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.80	0.80	0.24	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.39	0.39	0.040	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.39	0.39	0.042	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
Carbazole	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.39	0.39	0.027	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.39	0.39	0.042	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.39	0.39	0.038	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.39	0.39	0.044	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Fluorene	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.39	0.39	0.082	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Isophorone	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.39	0.39	0.030	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.39	0.39	0.036	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.39	0.39	0.018	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.80	0.80	0.077	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Phenol	<0.80	0.80	0.060	mg/kg dry	1	"	"	"	"	
Pyrene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	80.5			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	57.2			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	54.6			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	64.9			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	66.1			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	59.0			51-99.6 %		"	"	"	"	



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Barr Engineering Co.
 4700 W 77th St
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Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS4_0-0.5 (1302545-03) Soil Sampled: 06/05/13 10:45 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.37	0.37	0.028	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.37	0.37	0.030	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.37	0.37	0.037	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.37	0.37	0.027	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.37	0.37	0.026	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.74	0.74	0.068	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.74	0.74	0.032	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.74	0.74	0.062	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.74	0.74	0.059	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.74	0.74	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.74	0.74	0.026	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.37	0.37	0.036	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.74	0.74	0.060	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.37	0.37	0.057	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.37	0.37	0.032	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.74	0.74	0.062	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.74	0.74	0.044	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.74	0.74	0.068	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.74	0.74	0.023	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.8	1.8	0.089	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.37	0.37	0.028	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.74	0.74	0.057	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.37	0.37	0.032	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.74	0.74	0.069	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.74	0.74	0.031	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.37	0.37	0.028	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.74	0.74	0.080	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.37	0.37	0.037	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Aniline	<0.74	0.74	0.043	mg/kg dry	1	"	"	"	"	
Anthracene	<0.37	0.37	0.029	mg/kg dry	1	"	"	"	"	
Benzidine	<2.8	2.8	0.079	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.37	0.37	0.041	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.37	0.37	0.038	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.37	0.37	0.030	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS4_0-0.5 (1302545-03) Soil Sampled: 06/05/13 10:45 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.37	0.37	0.037	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.37	0.37	0.027	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.74	0.74	0.22	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.37	0.37	0.038	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.37	0.37	0.032	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.37	0.37	0.039	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Carbazole	<0.37	0.37	0.032	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.37	0.37	0.026	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.37	0.37	0.039	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.37	0.37	0.036	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.37	0.37	0.041	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Fluorene	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.37	0.37	0.030	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.37	0.37	0.032	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.37	0.37	0.077	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.37	0.37	0.032	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Isophorone	<0.37	0.37	0.029	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.37	0.37	0.028	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.37	0.37	0.027	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.37	0.37	0.017	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.74	0.74	0.072	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.37	0.37	0.029	mg/kg dry	1	"	"	"	"	
Phenol	<0.74	0.74	0.056	mg/kg dry	1	"	"	"	"	
Pyrene	<0.37	0.37	0.037	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	88.0			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	61.8			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	58.7			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	69.0			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	70.8			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	63.7			51-99.6 %		"	"	"	"	



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Barr Engineering Co.
 4700 W 77th St
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Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS5_0-0.5 (1302545-04) Soil Sampled: 06/05/13 11:05 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.37	0.37	0.028	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.37	0.37	0.030	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.37	0.37	0.037	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.37	0.37	0.027	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.37	0.37	0.026	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.75	0.75	0.069	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.75	0.75	0.033	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.75	0.75	0.063	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.75	0.75	0.060	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.75	0.75	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.75	0.75	0.026	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.37	0.37	0.036	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.75	0.75	0.061	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.37	0.37	0.057	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.75	0.75	0.063	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.75	0.75	0.045	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.75	0.75	0.069	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.75	0.75	0.024	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.8	1.8	0.090	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.37	0.37	0.028	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.75	0.75	0.057	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.75	0.75	0.070	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.75	0.75	0.031	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.37	0.37	0.028	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.75	0.75	0.081	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.37	0.37	0.037	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Aniline	<0.75	0.75	0.044	mg/kg dry	1	"	"	"	"	
Anthracene	<0.37	0.37	0.029	mg/kg dry	1	"	"	"	"	
Benzidine	<2.8	2.8	0.080	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.37	0.37	0.042	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.37	0.37	0.038	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.37	0.37	0.030	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS5_0-0.5 (1302545-04) Soil Sampled: 06/05/13 11:05 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.37	0.37	0.037	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.37	0.37	0.027	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.75	0.75	0.22	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.37	0.37	0.038	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.37	0.37	0.039	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
Carbazole	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.37	0.37	0.026	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.37	0.37	0.039	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.37	0.37	0.036	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.37	0.37	0.042	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Fluorene	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.37	0.37	0.030	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.37	0.37	0.078	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.37	0.37	0.033	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
Isophorone	<0.37	0.37	0.029	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.37	0.37	0.028	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.37	0.37	0.034	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.37	0.37	0.027	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.37	0.37	0.031	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.37	0.37	0.017	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.75	0.75	0.073	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.37	0.37	0.029	mg/kg dry	1	"	"	"	"	
Phenol	<0.75	0.75	0.056	mg/kg dry	1	"	"	"	"	
Pyrene	<0.37	0.37	0.037	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	87.0			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	61.8			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	58.0			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	69.2			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	70.2			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	63.1			51-99.6 %		"	"	"	"	



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Barr Engineering Co.
 4700 W 77th St
 Minneapolis, MN 55435

Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS7_0-0.5 (1302545-05) Soil Sampled: 06/05/13 11:25 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.35	0.35	0.027	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.35	0.35	0.029	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.35	0.35	0.035	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.35	0.35	0.026	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.35	0.35	0.024	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.71	0.71	0.065	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.71	0.71	0.031	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.71	0.71	0.060	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.71	0.71	0.056	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.71	0.71	0.15	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.71	0.71	0.024	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.35	0.35	0.034	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.71	0.71	0.057	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.35	0.35	0.054	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.71	0.71	0.060	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.71	0.71	0.043	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.71	0.71	0.065	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.71	0.71	0.022	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.7	1.7	0.085	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.35	0.35	0.027	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.71	0.71	0.054	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.71	0.71	0.066	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.71	0.71	0.030	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.35	0.35	0.027	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.71	0.71	0.077	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.35	0.35	0.035	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Aniline	<0.71	0.71	0.041	mg/kg dry	1	"	"	"	"	
Anthracene	<0.35	0.35	0.028	mg/kg dry	1	"	"	"	"	
Benzidine	<2.7	2.7	0.076	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.35	0.35	0.039	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.35	0.35	0.036	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.35	0.35	0.029	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS7_0-0.5 (1302545-05) Soil Sampled: 06/05/13 11:25 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.35	0.35	0.035	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.35	0.35	0.026	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.71	0.71	0.21	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.35	0.35	0.036	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.35	0.35	0.037	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Carbazole	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.35	0.35	0.024	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.35	0.35	0.037	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.35	0.35	0.034	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.35	0.35	0.039	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Fluorene	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.35	0.35	0.029	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.35	0.35	0.073	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Isophorone	<0.35	0.35	0.028	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.35	0.35	0.027	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.35	0.35	0.026	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.35	0.35	0.016	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.71	0.71	0.069	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.35	0.35	0.028	mg/kg dry	1	"	"	"	"	
Phenol	<0.71	0.71	0.053	mg/kg dry	1	"	"	"	"	
Pyrene	<0.35	0.35	0.035	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	89.9			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	62.0			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	58.0			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	68.7			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	70.9			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	65.4			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS8_0-0.5 (1302545-06) Soil Sampled: 06/05/13 11:55 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<0.38	0.38	0.029	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.38	0.38	0.027	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.78	0.78	0.071	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.78	0.78	0.034	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.78	0.78	0.065	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.78	0.78	0.062	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.78	0.78	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.78	0.78	0.027	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.78	0.78	0.063	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.38	0.38	0.059	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.78	0.78	0.065	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.78	0.78	0.047	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.78	0.78	0.071	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.78	0.78	0.024	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.093	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.78	0.78	0.059	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.78	0.78	0.072	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.78	0.78	0.033	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.78	0.78	0.084	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Aniline	<0.78	0.78	0.045	mg/kg dry	1	"	"	"	"	
Anthracene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Benzidine	<2.9	2.9	0.083	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	

Legend Technical Services, Inc.

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UMP 020466



88 Empire Drive
 St Paul, MN 55103
 Tel: 651-642-1150
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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS8_0-0.5 (1302545-06) Soil Sampled: 06/05/13 11:55 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.38	0.38	0.038	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.78	0.78	0.23	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.38	0.38	0.041	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Carbazole	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.38	0.38	0.027	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.38	0.38	0.041	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Fluorene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.38	0.38	0.080	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Isophorone	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.38	0.38	0.017	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.78	0.78	0.076	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Phenol	<0.78	0.78	0.058	mg/kg dry	1	"	"	"	"	
Pyrene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	86.0			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	61.2			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	56.0			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	68.6			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	69.2			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	64.1			51-99.6 %		"	"	"	"	



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Barr Engineering Co.
 4700 W 77th St
 Minneapolis, MN 55435

Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS9_0-0.5 (1302545-07) Soil Sampled: 06/05/13 12:20 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.35	0.35	0.027	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.35	0.35	0.029	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.35	0.35	0.035	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.35	0.35	0.026	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.35	0.35	0.025	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.72	0.72	0.066	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.72	0.72	0.031	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.72	0.72	0.060	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.72	0.72	0.057	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.72	0.72	0.15	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.72	0.72	0.025	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.35	0.35	0.034	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.72	0.72	0.058	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.35	0.35	0.055	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.72	0.72	0.060	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.72	0.72	0.043	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.72	0.72	0.066	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.72	0.72	0.023	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.7	1.7	0.086	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.35	0.35	0.027	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.72	0.72	0.055	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.72	0.72	0.067	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.72	0.72	0.030	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.35	0.35	0.027	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.72	0.72	0.077	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.35	0.35	0.035	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Aniline	<0.72	0.72	0.042	mg/kg dry	1	"	"	"	"	
Anthracene	<0.35	0.35	0.028	mg/kg dry	1	"	"	"	"	
Benzidine	<2.7	2.7	0.076	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.35	0.35	0.040	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.35	0.35	0.037	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.35	0.35	0.029	mg/kg dry	1	"	"	"	"	



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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS9_0-0.5 (1302545-07) Soil Sampled: 06/05/13 12:20 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.35	0.35	0.035	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.35	0.35	0.026	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.72	0.72	0.22	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.35	0.35	0.037	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.35	0.35	0.038	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Carbazole	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.35	0.35	0.025	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.35	0.35	0.038	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.35	0.35	0.034	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.35	0.35	0.040	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Fluorene	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.35	0.35	0.029	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.35	0.35	0.074	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.35	0.35	0.031	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
Isophorone	<0.35	0.35	0.028	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.35	0.35	0.027	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.35	0.35	0.032	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.35	0.35	0.026	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.35	0.35	0.030	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.35	0.35	0.016	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.72	0.72	0.070	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.35	0.35	0.028	mg/kg dry	1	"	"	"	"	
Phenol	<0.72	0.72	0.054	mg/kg dry	1	"	"	"	"	
Pyrene	<0.35	0.35	0.035	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	77.8			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	57.6			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	54.9			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	64.2			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	66.0			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	59.5			51-99.6 %		"	"	"	"	



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Barr Engineering Co.
 4700 W 77th St
 Minneapolis, MN 55435

Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS1_1-1.5 (1302545-08) Soil Sampled: 06/05/13 12:50 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.38	0.38	0.029	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.38	0.38	0.027	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.78	0.78	0.071	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.78	0.78	0.034	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.78	0.78	0.065	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.78	0.78	0.062	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.78	0.78	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.78	0.78	0.027	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.78	0.78	0.063	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.38	0.38	0.059	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.78	0.78	0.065	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.78	0.78	0.047	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.78	0.78	0.071	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.78	0.78	0.024	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.093	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.78	0.78	0.059	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.78	0.78	0.072	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.78	0.78	0.033	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.78	0.78	0.084	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Aniline	<0.78	0.78	0.045	mg/kg dry	1	"	"	"	"	
Anthracene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Benzidine	<2.9	2.9	0.083	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	



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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS1_1-1.5 (1302545-08) Soil Sampled: 06/05/13 12:50 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.38	0.38	0.038	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.78	0.78	0.23	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.38	0.38	0.041	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Carbazole	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.38	0.38	0.027	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.38	0.38	0.041	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Fluorene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.38	0.38	0.080	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Isophorone	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.38	0.38	0.017	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.78	0.78	0.076	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Phenol	<0.78	0.78	0.058	mg/kg dry	1	"	"	"	"	
Pyrene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	75.6			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	53.2			53.9-97.9 %		"	"	"	"	S-GC
Surrogate: 2-Fluorophenol	49.7			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	56.3			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	61.6			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	58.8			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
M-1 (1302545-09) Soil Sampled: 06/05/13 00:00 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<0.39	0.39	0.029	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
1,2-Dichlorobenzene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.39	0.39	0.028	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.39	0.39	0.027	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.79	0.79	0.072	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.79	0.79	0.034	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.79	0.79	0.066	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.79	0.79	0.062	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.79	0.79	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.79	0.79	0.027	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.39	0.39	0.038	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.79	0.79	0.064	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.39	0.39	0.060	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.79	0.79	0.066	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.79	0.79	0.047	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.79	0.79	0.072	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.79	0.79	0.025	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.094	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.79	0.79	0.060	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.79	0.79	0.073	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.79	0.79	0.033	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.79	0.79	0.085	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Aniline	<0.79	0.79	0.046	mg/kg dry	1	"	"	"	"	
Anthracene	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Benzidine	<2.9	2.9	0.084	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.39	0.39	0.044	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.39	0.39	0.040	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	

Legend Technical Services, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

UMP020472



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
M-1 (1302545-09) Soil Sampled: 06/05/13 00:00 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.39	0.39	0.039	mg/kg dry	1	B3F1004	06/10/13	06/10/13	EPA 8270D	
Benzoic acid	<0.39	0.39	0.028	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.79	0.79	0.24	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.39	0.39	0.040	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.39	0.39	0.041	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Carbazole	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.39	0.39	0.027	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.39	0.39	0.041	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.39	0.39	0.038	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.39	0.39	0.044	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Fluorene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.39	0.39	0.081	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Isophorone	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.39	0.39	0.028	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.39	0.39	0.018	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.79	0.79	0.076	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Phenol	<0.79	0.79	0.059	mg/kg dry	1	"	"	"	"	
Pyrene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	76.4			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	55.3			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	52.8			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	61.6			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	64.1			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	57.3			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Equipment Blank (1302545-10) Water Sampled: 06/05/13 13:15 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<10	10	0.55	ug/L	1	B3F1118	06/11/13	06/13/13	EPA 8270D	
1,2-Dichlorobenzene	<10	10	0.63	ug/L	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<10	10	0.52	ug/L	1	"	"	"	"	
1,3-Dichlorobenzene	<10	10	0.61	ug/L	1	"	"	"	"	
1,4-Dichlorobenzene	<10	10	0.60	ug/L	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<10	10	1.2	ug/L	1	"	"	"	"	
2,4,5-Trichlorophenol	<10	10	1.1	ug/L	1	"	"	"	"	
2,4,6-Trichlorophenol	<10	10	0.95	ug/L	1	"	"	"	"	
2,4-Dichlorophenol	<10	10	0.83	ug/L	1	"	"	"	"	
2,4-Dimethylphenol	<10	10	0.80	ug/L	1	"	"	"	"	
2,4-Dinitrophenol	<10	10	0.91	ug/L	1	"	"	"	"	
2,4-Dinitrotoluene	<10	10	0.49	ug/L	1	"	"	"	"	
2,6-Dichlorophenol	<10	10	1.2	ug/L	1	"	"	"	"	
2,6-Dinitrotoluene	<10	10	0.43	ug/L	1	"	"	"	"	
2-Chloronaphthalene	<10	10	0.46	ug/L	1	"	"	"	"	
2-Chlorophenol	<10	10	0.93	ug/L	1	"	"	"	"	
2-Methylnaphthalene	<10	10	0.92	ug/L	1	"	"	"	"	
2-Methylphenol	<10	10	1.2	ug/L	1	"	"	"	"	
2-Nitroaniline	<10	10	1.0	ug/L	1	"	"	"	"	
2-Nitrophenol	<10	10	1.1	ug/L	1	"	"	"	"	
3&4-Methylphenol	<10	10	0.85	ug/L	1	"	"	"	"	
3,3'-Dichlorobenzidine	<25	25	4.9	ug/L	1	"	"	"	"	
3-Nitroaniline	<10	10	0.91	ug/L	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<10	10	0.83	ug/L	1	"	"	"	"	
4-Bromophenyl phenyl ether	<10	10	0.53	ug/L	1	"	"	"	"	
4-Chloro-3-methylphenol	<10	10	0.97	ug/L	1	"	"	"	"	
4-Chloroaniline	<10	10	1.1	ug/L	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<10	10	0.49	ug/L	1	"	"	"	"	
4-Nitroaniline	<10	10	1.0	ug/L	1	"	"	"	"	
4-Nitrophenol	<10	10	1.3	ug/L	1	"	"	"	"	
Acenaphthene	<10	10	0.52	ug/L	1	"	"	"	"	
Acenaphthylene	<10	10	0.47	ug/L	1	"	"	"	"	
Aniline	<10	10	1.9	ug/L	1	"	"	"	"	
Anthracene	<10	10	0.48	ug/L	1	"	"	"	"	
Benzidine	<100	100	14	ug/L	1	"	"	"	"	
Benzo(a)anthracene	<10	10	0.41	ug/L	1	"	"	"	"	
Benzo(a)pyrene	<10	10	0.42	ug/L	1	"	"	"	"	
Benzo(b)fluoranthene	<10	10	0.46	ug/L	1	"	"	"	"	
Benzo(g,h,i)perylene	<10	10	0.38	ug/L	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Equipment Blank (1302545-10) Water Sampled: 06/05/13 13:15 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<10	10	0.43	ug/L	1	B3F1118	06/11/13	06/13/13	EPA 8270D	
Benzoic acid	<10	10	2.2	ug/L	1	"	"	"	"	
Benzyl alcohol	<10	10	2.9	ug/L	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<10	10	0.49	ug/L	1	"	"	"	"	
Bis(2-chloroethyl)ether	<10	10	0.52	ug/L	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<10	10	0.50	ug/L	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<10	10	0.50	ug/L	1	"	"	"	"	
Butyl benzyl phthalate	<10	10	0.54	ug/L	1	"	"	"	"	
Carbazole	<10	10	0.42	ug/L	1	"	"	"	"	T-1
Chrysene	<10	10	0.35	ug/L	1	"	"	"	"	
Dibenz(a,h)anthracene	<10	10	0.37	ug/L	1	"	"	"	"	
Dibenzofuran	<10	10	0.91	ug/L	1	"	"	"	"	
Diethyl phthalate	<10	10	0.52	ug/L	1	"	"	"	"	
Dimethyl phthalate	<10	10	0.45	ug/L	1	"	"	"	"	
Di-n-butyl phthalate	<10	10	0.46	ug/L	1	"	"	"	"	
Di-n-octyl phthalate	<10	10	0.60	ug/L	1	"	"	"	"	
Fluoranthene	<10	10	0.47	ug/L	1	"	"	"	"	
Fluorene	<10	10	0.46	ug/L	1	"	"	"	"	
Hexachlorobenzene	<10	10	0.50	ug/L	1	"	"	"	"	
Hexachlorobutadiene	<10	10	0.78	ug/L	1	"	"	"	"	
Hexachlorocyclopentadiene	<10	10	0.57	ug/L	1	"	"	"	"	
Hexachloroethane	<10	10	0.79	ug/L	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<10	10	0.34	ug/L	1	"	"	"	"	
Isophorone	<10	10	0.52	ug/L	1	"	"	"	"	
Naphthalene	<10	10	0.51	ug/L	1	"	"	"	"	
Nitrobenzene	<10	10	0.53	ug/L	1	"	"	"	"	
N-Nitrosodimethylamine	<10	10	0.86	ug/L	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<10	10	0.48	ug/L	1	"	"	"	"	
N-Nitrosodiphenylamine	<10	10	0.69	ug/L	1	"	"	"	"	
Pentachlorophenol	<10	10	0.79	ug/L	1	"	"	"	"	
Phenanthrene	<10	10	0.43	ug/L	1	"	"	"	"	
Phenol	<10	10	0.93	ug/L	1	"	"	"	"	
Pyrene	<10	10	0.50	ug/L	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	81.7			30-122 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	60.4			39.2-104 %		"	"	"	"	
Surrogate: 2-Fluorophenol	51.0			30-80.1 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	70.9			51.2-103 %		"	"	"	"	
Surrogate: Phenol-d6	57.2			30-75.3 %		"	"	"	"	
Surrogate: Terphenyl-d14	62.3			30-116 %		"	"	"	"	



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Barr Engineering Co.
 4700 W 77th St
 Minneapolis, MN 55435

Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS6_0-0.5 (1302545-11) Soil Sampled: 06/05/13 14:30 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.38	0.38	0.029	mg/kg dry	1	B3F1004	06/10/13	06/11/13	EPA 8270D	
1,2-Dichlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.38	0.38	0.026	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.77	0.77	0.070	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.77	0.77	0.033	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.77	0.77	0.064	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.77	0.77	0.061	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.77	0.77	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.77	0.77	0.026	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.77	0.77	0.062	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.38	0.38	0.059	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.77	0.77	0.064	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.38	0.38	0.032	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.77	0.77	0.046	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.77	0.77	0.070	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.77	0.77	0.024	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.8	1.8	0.092	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.77	0.77	0.059	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.77	0.77	0.071	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.77	0.77	0.032	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.77	0.77	0.083	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.38	0.38	0.032	mg/kg dry	1	"	"	"	"	
Aniline	<0.77	0.77	0.045	mg/kg dry	1	"	"	"	"	
Anthracene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Benzidine	<2.9	2.9	0.082	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.38	0.38	0.032	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.38	0.38	0.039	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS6_0-0.5 (1302545-11) Soil Sampled: 06/05/13 14:30 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.38	0.38	0.038	mg/kg dry	1	B3F1004	06/10/13	06/11/13	EPA 8270D	
Benzoic acid	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.77	0.77	0.23	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.38	0.38	0.039	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Carbazole	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.38	0.38	0.026	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.38	0.38	0.032	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.38	0.38	0.032	mg/kg dry	1	"	"	"	"	
Fluorene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.38	0.38	0.079	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.38	0.38	0.032	mg/kg dry	1	"	"	"	"	
Isophorone	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.38	0.38	0.032	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.38	0.38	0.017	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.77	0.77	0.075	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Phenol	<0.77	0.77	0.057	mg/kg dry	1	"	"	"	"	
Pyrene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	71.7			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	52.5			53.9-97.9 %		"	"	"	"	S-GC
Surrogate: 2-Fluorophenol	50.1			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	59.4			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	59.4			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	54.3			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS10_0-0.5 (1302545-12) Soil Sampled: 06/05/13 14:55 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<0.34	0.34	0.026	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
1,2-Dichlorobenzene	<0.34	0.34	0.028	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.34	0.34	0.034	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.34	0.34	0.025	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.34	0.34	0.024	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.69	0.69	0.063	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.69	0.69	0.030	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.69	0.69	0.058	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.69	0.69	0.055	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.69	0.69	0.14	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.69	0.69	0.024	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.34	0.34	0.033	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.69	0.69	0.056	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.34	0.34	0.053	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.69	0.69	0.058	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.69	0.69	0.041	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.69	0.69	0.063	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.69	0.69	0.022	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.6	1.6	0.082	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.34	0.34	0.026	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.69	0.69	0.053	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.69	0.69	0.064	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.69	0.69	0.029	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.34	0.34	0.026	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.69	0.69	0.074	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.34	0.34	0.034	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Aniline	<0.69	0.69	0.040	mg/kg dry	1	"	"	"	"	
Anthracene	<0.34	0.34	0.027	mg/kg dry	1	"	"	"	"	
Benzidine	<2.6	2.6	0.073	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.34	0.34	0.038	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.34	0.34	0.035	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.34	0.34	0.028	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS10_0-0.5 (1302545-12) Soil Sampled: 06/05/13 14:55 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.34	0.34	0.034	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
Benzoic acid	<0.34	0.34	0.025	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.69	0.69	0.21	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.34	0.34	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.34	0.34	0.036	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Carbazole	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.34	0.34	0.024	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.34	0.34	0.036	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.34	0.34	0.033	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.34	0.34	0.038	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Fluorene	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.34	0.34	0.028	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.34	0.34	0.071	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Isophorone	<0.34	0.34	0.027	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.34	0.34	0.026	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.34	0.34	0.025	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.34	0.34	0.015	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.69	0.69	0.067	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.34	0.34	0.027	mg/kg dry	1	"	"	"	"	
Phenol	<0.69	0.69	0.052	mg/kg dry	1	"	"	"	"	
Pyrene	<0.34	0.34	0.034	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	87.9			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	58.9			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	55.2			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	64.5			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	66.9			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	68.1			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS11_0-0.5 (1302545-13) Soil Sampled: 06/05/13 15:15 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.36	0.36	0.027	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
1,2-Dichlorobenzene	<0.36	0.36	0.030	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.36	0.36	0.036	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.36	0.36	0.026	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.36	0.36	0.025	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.74	0.74	0.067	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.74	0.74	0.032	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.74	0.74	0.062	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.74	0.74	0.058	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.74	0.74	0.15	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.74	0.74	0.025	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.36	0.36	0.035	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.74	0.74	0.059	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.36	0.36	0.056	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.36	0.36	0.032	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.74	0.74	0.062	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.36	0.36	0.031	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.74	0.74	0.044	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.74	0.74	0.067	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.74	0.74	0.023	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.8	1.8	0.088	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.36	0.36	0.027	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.74	0.74	0.056	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.36	0.36	0.032	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.74	0.74	0.068	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.74	0.74	0.031	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.36	0.36	0.027	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.74	0.74	0.079	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.36	0.36	0.036	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.36	0.36	0.031	mg/kg dry	1	"	"	"	"	
Aniline	<0.74	0.74	0.043	mg/kg dry	1	"	"	"	"	
Anthracene	<0.36	0.36	0.029	mg/kg dry	1	"	"	"	"	
Benzidine	<2.7	2.7	0.078	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.36	0.36	0.031	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.36	0.36	0.041	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.36	0.36	0.037	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.36	0.36	0.030	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS11_0-0.5 (1302545-13) Soil Sampled: 06/05/13 15:15 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.36	0.36	0.036	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
Benzoic acid	<0.36	0.36	0.026	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.74	0.74	0.22	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.36	0.36	0.037	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.36	0.36	0.032	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.36	0.36	0.038	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
Carbazole	<0.36	0.36	0.032	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.36	0.36	0.025	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.36	0.36	0.038	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.36	0.36	0.031	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.36	0.36	0.035	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.36	0.36	0.041	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.36	0.36	0.031	mg/kg dry	1	"	"	"	"	
Fluorene	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.36	0.36	0.030	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.36	0.36	0.032	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.36	0.36	0.076	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.36	0.36	0.032	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.36	0.36	0.031	mg/kg dry	1	"	"	"	"	
Isophorone	<0.36	0.36	0.029	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.36	0.36	0.027	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.36	0.36	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.36	0.36	0.026	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.36	0.36	0.031	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.36	0.36	0.016	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.74	0.74	0.071	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.36	0.36	0.029	mg/kg dry	1	"	"	"	"	
Phenol	<0.74	0.74	0.055	mg/kg dry	1	"	"	"	"	
Pyrene	<0.36	0.36	0.036	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	74.7			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	52.6			53.9-97.9 %		"	"	"	"	S-GC
Surrogate: 2-Fluorophenol	48.3			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	56.7			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	58.5			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	53.5			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS12_0-0.5 (1302545-14) Soil Sampled: 06/05/13 15:30 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<0.39	0.39	0.029	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
1,2-Dichlorobenzene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.39	0.39	0.028	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.39	0.39	0.027	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.79	0.79	0.072	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.79	0.79	0.034	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.79	0.79	0.066	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.79	0.79	0.062	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.79	0.79	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.79	0.79	0.027	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.39	0.39	0.038	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.79	0.79	0.064	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.39	0.39	0.060	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.79	0.79	0.066	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.79	0.79	0.047	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.79	0.79	0.072	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.79	0.79	0.025	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.094	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.79	0.79	0.060	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.79	0.79	0.073	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.79	0.79	0.033	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.79	0.79	0.085	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Aniline	<0.79	0.79	0.046	mg/kg dry	1	"	"	"	"	
Anthracene	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Benzidine	<2.9	2.9	0.084	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.39	0.39	0.044	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.39	0.39	0.040	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS12_0-0.5 (1302545-14) Soil Sampled: 06/05/13 15:30 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.39	0.39	0.039	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
Benzoic acid	<0.39	0.39	0.028	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.79	0.79	0.24	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.39	0.39	0.040	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.39	0.39	0.041	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Carbazole	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.39	0.39	0.027	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.39	0.39	0.041	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.39	0.39	0.038	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.39	0.39	0.044	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Fluorene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.39	0.39	0.032	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.39	0.39	0.081	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.39	0.39	0.034	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
Isophorone	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.39	0.39	0.029	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.39	0.39	0.035	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.39	0.39	0.028	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.39	0.39	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.39	0.39	0.018	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.79	0.79	0.076	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.39	0.39	0.031	mg/kg dry	1	"	"	"	"	
Phenol	<0.79	0.79	0.059	mg/kg dry	1	"	"	"	"	
Pyrene	<0.39	0.39	0.039	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	81.1			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	58.6			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	53.1			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	65.7			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	65.8			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	59.4			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS13_0-0.5 (1302545-15) Soil Sampled: 06/05/13 15:50 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<0.38	0.38	0.029	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
1,2-Dichlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.38	0.38	0.027	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.78	0.78	0.071	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.78	0.78	0.034	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.78	0.78	0.065	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.78	0.78	0.062	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.78	0.78	0.16	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.78	0.78	0.027	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.78	0.78	0.063	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.38	0.38	0.059	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.78	0.78	0.065	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.78	0.78	0.047	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.78	0.78	0.071	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.78	0.78	0.024	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.093	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.78	0.78	0.059	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.78	0.78	0.072	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.78	0.78	0.033	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.78	0.78	0.084	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Aniline	<0.78	0.78	0.045	mg/kg dry	1	"	"	"	"	
Anthracene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Benzidine	<2.9	2.9	0.083	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS13_0-0.5 (1302545-15) Soil Sampled: 06/05/13 15:50 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.38	0.38	0.038	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
Benzoic acid	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.78	0.78	0.23	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.38	0.38	0.040	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.38	0.38	0.041	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Carbazole	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.38	0.38	0.027	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.38	0.38	0.041	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.38	0.38	0.037	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.38	0.38	0.043	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Fluorene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.38	0.38	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.38	0.38	0.080	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.38	0.38	0.034	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
Isophorone	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.38	0.38	0.029	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.38	0.38	0.035	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.38	0.38	0.028	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.38	0.38	0.033	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.38	0.38	0.017	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.78	0.78	0.076	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.38	0.38	0.030	mg/kg dry	1	"	"	"	"	
Phenol	<0.78	0.78	0.058	mg/kg dry	1	"	"	"	"	
Pyrene	<0.38	0.38	0.038	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	69.7			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	50.6			53.9-97.9 %		"	"	"	"	S-GC
Surrogate: 2-Fluorophenol	44.9			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	54.0			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	55.3			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	51.2			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS14_0-0.5 (1302545-16) Soil Sampled: 06/05/13 16:14 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<0.34	0.34	0.026	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
1,2-Dichlorobenzene	<0.34	0.34	0.028	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.34	0.34	0.034	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.34	0.34	0.025	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.34	0.34	0.024	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.69	0.69	0.063	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.69	0.69	0.030	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.69	0.69	0.058	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.69	0.69	0.055	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.69	0.69	0.14	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.69	0.69	0.024	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.34	0.34	0.033	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.69	0.69	0.056	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.34	0.34	0.053	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.69	0.69	0.058	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.69	0.69	0.041	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.69	0.69	0.063	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.69	0.69	0.022	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.6	1.6	0.082	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.34	0.34	0.026	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.69	0.69	0.053	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.69	0.69	0.064	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.69	0.69	0.029	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.34	0.34	0.026	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.69	0.69	0.074	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.34	0.34	0.034	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Aniline	<0.69	0.69	0.040	mg/kg dry	1	"	"	"	"	
Anthracene	<0.34	0.34	0.027	mg/kg dry	1	"	"	"	"	
Benzidine	<2.6	2.6	0.073	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.34	0.34	0.038	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.34	0.34	0.035	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.34	0.34	0.028	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS14_0-0.5 (1302545-16) Soil Sampled: 06/05/13 16:14 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.34	0.34	0.034	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
Benzoic acid	<0.34	0.34	0.025	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.69	0.69	0.21	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.34	0.34	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.34	0.34	0.036	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Carbazole	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.34	0.34	0.024	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.34	0.34	0.036	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.34	0.34	0.033	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.34	0.34	0.038	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Fluorene	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.34	0.34	0.028	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.34	0.34	0.071	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.34	0.34	0.030	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
Isophorone	<0.34	0.34	0.027	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.34	0.34	0.026	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.34	0.34	0.031	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.34	0.34	0.025	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.34	0.34	0.029	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.34	0.34	0.015	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.69	0.69	0.067	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.34	0.34	0.027	mg/kg dry	1	"	"	"	"	
Phenol	<0.69	0.69	0.052	mg/kg dry	1	"	"	"	"	
Pyrene	<0.34	0.34	0.034	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	87.0			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	63.2			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	57.7			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	69.9			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	70.8			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	62.2			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS15_0-0.5 (1302545-17) Soil Sampled: 06/05/13 16:30 Received: 06/06/13 10:55										
1,2,4-Trichlorobenzene	<0.41	0.41	0.031	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
1,2-Dichlorobenzene	<0.41	0.41	0.033	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.41	0.41	0.041	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.41	0.41	0.030	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.41	0.41	0.028	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.83	0.83	0.075	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.83	0.83	0.036	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.83	0.83	0.069	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.83	0.83	0.065	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.83	0.83	0.17	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.83	0.83	0.028	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.41	0.41	0.040	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.83	0.83	0.067	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.41	0.41	0.063	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.41	0.41	0.036	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.83	0.83	0.069	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.41	0.41	0.035	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.83	0.83	0.049	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.83	0.83	0.075	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.83	0.83	0.026	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<2.0	2.0	0.099	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.41	0.41	0.031	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.83	0.83	0.063	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.41	0.41	0.036	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.83	0.83	0.077	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.83	0.83	0.035	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.41	0.41	0.031	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.83	0.83	0.089	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.41	0.41	0.041	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.41	0.41	0.035	mg/kg dry	1	"	"	"	"	
Aniline	<0.83	0.83	0.048	mg/kg dry	1	"	"	"	"	
Anthracene	<0.41	0.41	0.032	mg/kg dry	1	"	"	"	"	
Benzidine	<3.1	3.1	0.088	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.41	0.41	0.035	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.41	0.41	0.046	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.41	0.41	0.042	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.41	0.41	0.033	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS15_0-0.5 (1302545-17) Soil Sampled: 06/05/13 16:30 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.41	0.41	0.041	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
Benzoic acid	<0.41	0.41	0.030	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.83	0.83	0.25	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.41	0.41	0.042	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.41	0.41	0.036	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.41	0.41	0.043	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
Carbazole	<0.41	0.41	0.036	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.41	0.41	0.028	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.41	0.41	0.043	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.41	0.41	0.035	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.41	0.41	0.040	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.41	0.41	0.046	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.41	0.41	0.035	mg/kg dry	1	"	"	"	"	
Fluorene	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.41	0.41	0.033	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.41	0.41	0.036	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.41	0.41	0.085	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.41	0.41	0.036	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.41	0.41	0.035	mg/kg dry	1	"	"	"	"	
Isophorone	<0.41	0.41	0.032	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.41	0.41	0.031	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.41	0.41	0.037	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.41	0.41	0.030	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.41	0.41	0.035	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.41	0.41	0.019	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.83	0.83	0.080	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.41	0.41	0.032	mg/kg dry	1	"	"	"	"	
Phenol	<0.83	0.83	0.062	mg/kg dry	1	"	"	"	"	
Pyrene	<0.41	0.41	0.041	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	76.3			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	55.8			53.9-97.9 %		"	"	"	"	
Surrogate: 2-Fluorophenol	49.6			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	61.9			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	62.0			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	61.0			51-99.6 %		"	"	"	"	



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Barr Engineering Co.
 4700 W 77th St
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Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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NHR-SS16_0-0.5 (1302545-18) Soil Sampled: 06/05/13 16:50 Received: 06/06/13 10:55

1,2,4-Trichlorobenzene	<0.40	0.40	0.030	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
1,2-Dichlorobenzene	<0.40	0.40	0.033	mg/kg dry	1	"	"	"	"	
1,2-Diphenylhydrazine as Azobenzene	<0.40	0.40	0.040	mg/kg dry	1	"	"	"	"	
1,3-Dichlorobenzene	<0.40	0.40	0.029	mg/kg dry	1	"	"	"	"	
1,4-Dichlorobenzene	<0.40	0.40	0.028	mg/kg dry	1	"	"	"	"	
2,3,4,6-Tetrachlorophenol	<0.81	0.81	0.073	mg/kg dry	1	"	"	"	"	
2,4,5-Trichlorophenol	<0.81	0.81	0.035	mg/kg dry	1	"	"	"	"	
2,4,6-Trichlorophenol	<0.81	0.81	0.067	mg/kg dry	1	"	"	"	"	
2,4-Dichlorophenol	<0.81	0.81	0.064	mg/kg dry	1	"	"	"	"	
2,4-Dimethylphenol	<0.81	0.81	0.17	mg/kg dry	1	"	"	"	"	
2,4-Dinitrophenol	<0.81	0.81	0.028	mg/kg dry	1	"	"	"	"	
2,4-Dinitrotoluene	<0.40	0.40	0.039	mg/kg dry	1	"	"	"	"	
2,6-Dichlorophenol	<0.81	0.81	0.065	mg/kg dry	1	"	"	"	"	
2,6-Dinitrotoluene	<0.40	0.40	0.061	mg/kg dry	1	"	"	"	"	
2-Chloronaphthalene	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
2-Chlorophenol	<0.81	0.81	0.067	mg/kg dry	1	"	"	"	"	
2-Methylnaphthalene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
2-Methylphenol	<0.81	0.81	0.048	mg/kg dry	1	"	"	"	"	
2-Nitroaniline	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
2-Nitrophenol	<0.81	0.81	0.073	mg/kg dry	1	"	"	"	"	
3&4-Methylphenol	<0.81	0.81	0.025	mg/kg dry	1	"	"	"	"	
3,3'-Dichlorobenzidine	<1.9	1.9	0.096	mg/kg dry	1	"	"	"	"	
3-Nitroaniline	<0.40	0.40	0.030	mg/kg dry	1	"	"	"	"	
4,6-Dinitro-2-methylphenol	<0.81	0.81	0.061	mg/kg dry	1	"	"	"	"	
4-Bromophenyl phenyl ether	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
4-Chloro-3-methylphenol	<0.81	0.81	0.075	mg/kg dry	1	"	"	"	"	
4-Chloroaniline	<0.81	0.81	0.034	mg/kg dry	1	"	"	"	"	
4-Chlorophenyl phenyl ether	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
4-Nitroaniline	<0.40	0.40	0.030	mg/kg dry	1	"	"	"	"	
4-Nitrophenol	<0.81	0.81	0.087	mg/kg dry	1	"	"	"	"	
Acenaphthene	<0.40	0.40	0.040	mg/kg dry	1	"	"	"	"	
Acenaphthylene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Aniline	<0.81	0.81	0.047	mg/kg dry	1	"	"	"	"	
Anthracene	<0.40	0.40	0.031	mg/kg dry	1	"	"	"	"	
Benzidine	<3.0	3.0	0.086	mg/kg dry	1	"	"	"	"	
Benzo(a)anthracene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Benzo(a)pyrene	<0.40	0.40	0.045	mg/kg dry	1	"	"	"	"	
Benzo(b)fluoranthene	<0.40	0.40	0.041	mg/kg dry	1	"	"	"	"	
Benzo(g,h,i)perylene	<0.40	0.40	0.033	mg/kg dry	1	"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
NHR-SS16_0-0.5 (1302545-18) Soil Sampled: 06/05/13 16:50 Received: 06/06/13 10:55										
Benzo(k)fluoranthene	<0.40	0.40	0.040	mg/kg dry	1	B3F1004	06/10/13	06/12/13	EPA 8270D	
Benzoic acid	<0.40	0.40	0.029	mg/kg dry	1	"	"	"	"	
Benzyl alcohol	<0.81	0.81	0.24	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethoxy)methane	<0.40	0.40	0.041	mg/kg dry	1	"	"	"	"	
Bis(2-chloroethyl)ether	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
Bis(2-chloroisopropyl)ether	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Bis(2-ethylhexyl)phthalate	<0.40	0.40	0.042	mg/kg dry	1	"	"	"	"	
Butyl benzyl phthalate	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Carbazole	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	T-1
Chrysene	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Dibenz(a,h)anthracene	<0.40	0.40	0.028	mg/kg dry	1	"	"	"	"	
Dibenzofuran	<0.40	0.40	0.042	mg/kg dry	1	"	"	"	"	
Diethyl phthalate	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Dimethyl phthalate	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Di-n-butyl phthalate	<0.40	0.40	0.039	mg/kg dry	1	"	"	"	"	
Di-n-octyl phthalate	<0.40	0.40	0.045	mg/kg dry	1	"	"	"	"	
Fluoranthene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Fluorene	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
Hexachlorobenzene	<0.40	0.40	0.033	mg/kg dry	1	"	"	"	"	
Hexachlorobutadiene	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
Hexachlorocyclopentadiene	<0.40	0.40	0.083	mg/kg dry	1	"	"	"	"	
Hexachloroethane	<0.40	0.40	0.035	mg/kg dry	1	"	"	"	"	
Indeno (1,2,3-cd) pyrene	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
Isophorone	<0.40	0.40	0.031	mg/kg dry	1	"	"	"	"	
Naphthalene	<0.40	0.40	0.030	mg/kg dry	1	"	"	"	"	
Nitrobenzene	<0.40	0.40	0.036	mg/kg dry	1	"	"	"	"	
N-Nitrosodimethylamine	<0.40	0.40	0.029	mg/kg dry	1	"	"	"	"	
N-Nitrosodi-n-propylamine	<0.40	0.40	0.034	mg/kg dry	1	"	"	"	"	
N-Nitrosodiphenylamine	<0.40	0.40	0.018	mg/kg dry	1	"	"	"	"	
Pentachlorophenol	<0.81	0.81	0.078	mg/kg dry	1	"	"	"	"	
Phenanthrene	<0.40	0.40	0.031	mg/kg dry	1	"	"	"	"	
Phenol	<0.81	0.81	0.060	mg/kg dry	1	"	"	"	"	
Pyrene	<0.40	0.40	0.040	mg/kg dry	1	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	73.8			53-107 %		"	"	"	"	
Surrogate: 2-Fluorobiphenyl	53.8			53.9-97.9 %		"	"	"	"	S-GC
Surrogate: 2-Fluorophenol	47.3			42.5-94.9 %		"	"	"	"	
Surrogate: Nitrobenzene-d5	59.0			48.9-100 %		"	"	"	"	
Surrogate: Phenol-d6	58.5			50.4-99.6 %		"	"	"	"	
Surrogate: Terphenyl-d14	54.8			51-99.6 %		"	"	"	"	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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DRO/8015D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch B3F1009 - Sonication (Wisc DRO)											
Blank (B3F1009-BLK1)						Prepared: 06/10/13 Analyzed: 06/12/13					
DRO (Silica Gel Cleanup)	< 8.0	8.0		mg/kg wet							
Surrogate: <i>Triacontane (C-30) (Silica Gel)</i>	13.6			mg/kg wet	16.0		85.2	70-130			
LCS (B3F1009-BS1)						Prepared: 06/10/13 Analyzed: 06/12/13					
DRO (Silica Gel Cleanup)	65.5	8.0		mg/kg wet	64.0		102	70-130			
Surrogate: <i>Triacontane (C-30) (Silica Gel)</i>	15.3			mg/kg wet	16.0		95.6	70-130			
LCS Dup (B3F1009-BSD1)						Prepared: 06/10/13 Analyzed: 06/12/13					
DRO (Silica Gel Cleanup)	65.3	8.0		mg/kg wet	64.0		102	70-130	0.309	20	
Surrogate: <i>Triacontane (C-30) (Silica Gel)</i>	16.4			mg/kg wet	16.0		102	70-130			
Batch B3F1214 - EPA 3510C (Sep Funnel)											
Blank (B3F1214-BLK1)						Prepared: 06/12/13 Analyzed: 06/13/13					
Diesel Range Organics	< 100	100	28	ug/L							
Surrogate: <i>Triacontane (C-30)</i>	372			ug/L	400		92.9	70-130			
LCS (B3F1214-BS1)						Prepared: 06/12/13 Analyzed: 06/13/13					
Diesel Range Organics	1600	100	28	ug/L	1600		100	75-115			
Surrogate: <i>Triacontane (C-30)</i>	412			ug/L	400		103	70-130			
LCS Dup (B3F1214-BSD1)						Prepared: 06/12/13 Analyzed: 06/13/13					
Diesel Range Organics	1590	100	28	ug/L	1600		99.6	75-115	0.625	20	
Surrogate: <i>Triacontane (C-30)</i>	405			ug/L	400		101	70-130			



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TOTAL METALS ANALYSIS - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch B3F0703 - EPA 7471A											
Blank (B3F0703-BLK1) Prepared & Analyzed: 06/07/13											
Mercury	< 0.10	0.10	0.017	mg/kg wet							
LCS (B3F0703-BS1) Prepared & Analyzed: 06/07/13											
Mercury	0.194	0.10	0.017	mg/kg wet	0.200		97.0	80-120			
LCS Dup (B3F0703-BSD1) Prepared & Analyzed: 06/07/13											
Mercury	0.196	0.10	0.017	mg/kg wet	0.200		98.0	80-120	1.03	20	
Matrix Spike (B3F0703-MS1) Source: 1302549-03 Prepared & Analyzed: 06/07/13											
Mercury	0.208	0.11	0.018	mg/kg dry	0.215	<0.11	96.5	80-120			
Matrix Spike Dup (B3F0703-MSD1) Source: 1302549-03 Prepared & Analyzed: 06/07/13											
Mercury	0.194	0.11	0.018	mg/kg dry	0.215	<0.11	90.0	80-120	6.99	20	
Batch B3F0713 - EPA 3050B											
Blank (B3F0713-BLK1) Prepared: 06/07/13 Analyzed: 06/10/13											
Arsenic	< 0.50	0.50	0.12	mg/kg wet							
Barium	< 1.0	1.0	0.055	mg/kg wet							
Cadmium	< 0.25	0.25	0.033	mg/kg wet							
Chromium	< 0.50	0.50	0.13	mg/kg wet							
Lead	< 1.0	1.0	0.14	mg/kg wet							
Selenium	< 1.0	1.0	0.16	mg/kg wet							
Silver	< 0.25	0.25	0.028	mg/kg wet							
LCS (B3F0713-BS1) Prepared: 06/07/13 Analyzed: 06/10/13											
Arsenic	41.1	0.50	0.12	mg/kg wet	39.9		103	80-120			
Barium	41.4	1.0	0.055	mg/kg wet	39.9		104	80-120			
Cadmium	42.1	0.25	0.033	mg/kg wet	39.9		106	80-120			
Chromium	41.3	0.50	0.13	mg/kg wet	39.9		103	80-120			
Lead	42.6	1.0	0.14	mg/kg wet	39.9		107	80-120			
Selenium	41.0	1.0	0.16	mg/kg wet	39.9		103	80-120			
Silver	4.04	0.25	0.028	mg/kg wet	3.99		101	80-120			
LCS Dup (B3F0713-BSD1) Prepared: 06/07/13 Analyzed: 06/10/13											
Arsenic	37.7	0.50	0.12	mg/kg wet	39.9		94.4	80-120	8.74	20	
Barium	39.3	1.0	0.055	mg/kg wet	39.9		98.4	80-120	5.38	20	
Cadmium	38.8	0.25	0.033	mg/kg wet	39.9		97.2	80-120	8.23	20	
Chromium	38.0	0.50	0.13	mg/kg wet	39.9		95.3	80-120	8.18	20	
Lead	39.0	1.0	0.14	mg/kg wet	39.9		97.9	80-120	8.67	20	
Selenium	37.6	1.0	0.16	mg/kg wet	39.9		94.3	80-120	8.65	20	
Silver	3.80	0.25	0.028	mg/kg wet	3.99		95.3	80-120	5.91	20	

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TOTAL METALS ANALYSIS - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F0713 - EPA 3050B

Matrix Spike (B3F0713-MS1)	Source: 1302549-03				Prepared: 06/07/13		Analyzed: 06/10/13	
Arsenic	35.8	0.47	0.12	mg/kg dry	37.5	2.65	88.4	75-125
Barium	113	0.94	0.052	mg/kg dry	37.5	65.6	125	75-125
Cadmium	34.0	0.24	0.031	mg/kg dry	37.5	<0.24	90.3	75-125
Chromium	49.2	0.47	0.13	mg/kg dry	37.5	13.4	95.4	75-125
Lead	40.7	0.94	0.13	mg/kg dry	37.5	6.58	90.9	75-125
Selenium	32.3	0.94	0.16	mg/kg dry	37.5	<0.94	86.0	75-125
Silver	3.46	0.24	0.026	mg/kg dry	3.75	<0.24	92.1	75-125

Matrix Spike Dup (B3F0713-MSD1)

Matrix Spike Dup (B3F0713-MSD1)	Source: 1302549-03				Prepared: 06/07/13		Analyzed: 06/10/13			
Arsenic	35.9	0.48	0.12	mg/kg dry	37.9	2.65	87.7	75-125	0.192	20
Barium	106	0.95	0.052	mg/kg dry	37.9	65.6	107	75-125	5.95	20
Cadmium	33.9	0.24	0.031	mg/kg dry	37.9	<0.24	89.3	75-125	0.190	20
Chromium	50.1	0.48	0.13	mg/kg dry	37.9	13.4	96.6	75-125	1.68	20
Lead	40.5	0.95	0.13	mg/kg dry	37.9	6.58	89.5	75-125	0.449	20
Selenium	32.5	0.95	0.16	mg/kg dry	37.9	<0.95	85.7	75-125	0.596	20
Silver	3.44	0.24	0.026	mg/kg dry	3.79	<0.24	90.8	75-125	0.347	20

Batch B3F1114 - EPA 200.7/3005A Digestion

Blank (B3F1114-BLK1)

Blank (B3F1114-BLK1)					Prepared & Analyzed: 06/11/13	
Arsenic	< 0.010	0.010	0.0014	mg/L		
Barium	< 0.020	0.020	0.0021	mg/L		
Cadmium	< 0.0010	0.0010	0.00015	mg/L		
Chromium	< 0.010	0.010	0.00015	mg/L		
Lead	< 0.0030	0.0030	0.00058	mg/L		
Selenium	< 0.020	0.020	0.0040	mg/L		
Silver	< 0.0050	0.0050	0.00031	mg/L		

LCS (B3F1114-BS1)

LCS (B3F1114-BS1)					Prepared & Analyzed: 06/11/13		
Arsenic	0.376	0.010	0.0014	mg/L	0.399	94.2	80-120
Barium	0.350	0.020	0.0021	mg/L	0.399	87.8	80-120
Cadmium	0.347	0.0010	0.00015	mg/L	0.399	87.0	80-120
Chromium	0.366	0.010	0.00015	mg/L	0.399	91.7	80-120
Lead	0.366	0.0030	0.00058	mg/L	0.399	91.8	80-120
Selenium	0.359	0.020	0.0040	mg/L	0.399	90.1	80-120
Silver	0.0368	0.0050	0.00031	mg/L	0.0399	92.1	80-120

LCS Dup (B3F1114-BSD1)

LCS Dup (B3F1114-BSD1)					Prepared & Analyzed: 06/11/13				
Arsenic	0.408	0.010	0.0014	mg/L	0.399	102	80-120	8.18	20
Barium	0.385	0.020	0.0021	mg/L	0.399	96.5	80-120	9.48	20
Cadmium	0.382	0.0010	0.00015	mg/L	0.399	95.8	80-120	9.58	20
Chromium	0.402	0.010	0.00015	mg/L	0.399	101	80-120	9.31	20
Lead	0.386	0.0030	0.00058	mg/L	0.399	96.7	80-120	5.24	20

Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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TOTAL METALS ANALYSIS - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch B3F1114 - EPA 200.7/3005A Digestion											
LCS Dup (B3F1114-BSD1)					Prepared & Analyzed: 06/11/13						
Selenium	0.391	0.020	0.0040	mg/L	0.399		97.9	80-120	8.33	20	
Silver	0.0398	0.0050	0.00031	mg/L	0.0399		99.8	80-120	7.97	20	
Matrix Spike (B3F1114-MS1)					Source: 1302542-01		Prepared & Analyzed: 06/11/13				
Arsenic	0.342	0.010	0.0014	mg/L	0.399	<0.010	84.9	75-125			
Barium	0.337	0.020	0.0021	mg/L	0.399	0.0424	73.9	75-125			M2
Cadmium	0.314	0.0010	0.00015	mg/L	0.399	<0.0010	78.8	75-125			
Chromium	0.332	0.010	0.00015	mg/L	0.399	<0.010	82.1	75-125			
Lead	0.355	0.0030	0.00058	mg/L	0.399	0.0129	85.8	75-125			
Selenium	0.338	0.020	0.0040	mg/L	0.399	<0.020	82.7	75-125			
Silver	0.0324	0.0050	0.00031	mg/L	0.0399	<0.0050	81.2	75-125			
Matrix Spike Dup (B3F1114-MSD1)					Source: 1302542-01		Prepared & Analyzed: 06/11/13				
Arsenic	0.363	0.010	0.0014	mg/L	0.399	<0.010	90.4	75-125	6.20	20	
Barium	0.372	0.020	0.0021	mg/L	0.399	0.0424	82.5	75-125	9.67	20	
Cadmium	0.330	0.0010	0.00015	mg/L	0.399	<0.0010	82.7	75-125	4.84	20	
Chromium	0.347	0.010	0.00015	mg/L	0.399	<0.010	86.0	75-125	4.63	20	
Lead	0.380	0.0030	0.00058	mg/L	0.399	0.0129	91.9	75-125	6.61	20	
Selenium	0.356	0.020	0.0040	mg/L	0.399	<0.020	87.3	75-125	5.28	20	
Silver	0.0319	0.0050	0.00031	mg/L	0.0399	<0.0050	80.0	75-125	1.46	20	
Batch B3F1401 - EPA 245.1/7470A Digestion											
Blank (B3F1401-BLK1)					Prepared & Analyzed: 06/14/13						
Mercury	< 0.00020	0.00020	0.000034	mg/L							
LCS (B3F1401-BS1)					Prepared & Analyzed: 06/14/13						
Mercury	0.00201	0.00020	0.000034	mg/L	0.00200		100	80-120			
LCS Dup (B3F1401-BSD1)					Prepared & Analyzed: 06/14/13						
Mercury	0.00203	0.00020	0.000034	mg/L	0.00200		102	80-120	0.990	20	
Matrix Spike (B3F1401-MS1)					Source: 1302545-10		Prepared & Analyzed: 06/14/13				
Mercury	0.00210	0.00020	0.000034	mg/L	0.00200	<0.00020	102	75-125			
Matrix Spike Dup (B3F1401-MSD1)					Source: 1302545-10		Prepared & Analyzed: 06/14/13				
Mercury	0.00205	0.00020	0.000034	mg/L	0.00200	<0.00020	99.9	75-125	2.41	20	



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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PERCENT SOLIDS - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes	
Batch B3F1305 - General Preparation												
Duplicate (B3F1305-DUP1)							Source: 1302545-11					Prepared & Analyzed: 06/13/13
% Solids	87.0			%		87.0			0.00	20		
Duplicate (B3F1305-DUP2)							Source: 1302545-17					Prepared & Analyzed: 06/13/13
% Solids	81.0			%		81.0			0.00	20		
Duplicate (B3F1305-DUP3)							Source: 1302545-18					Prepared & Analyzed: 06/13/13
% Solids	84.0			%		83.0			1.20	20		



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Barr Engineering Co.
 4700 W 77th St
 Minneapolis, MN 55435

Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1004 - EPA 3545 ASE Extraction

Blank (B3F1004-BLK1)

Prepared & Analyzed: 06/10/13

1,2,4-Trichlorobenzene	< 0.33	0.33	0.025	mg/kg wet							
1,2-Dichlorobenzene	< 0.33	0.33	0.027	mg/kg wet							
1,2-Diphenylhydrazine as Azobenzene	< 0.33	0.33	0.033	mg/kg wet							
1,3-Dichlorobenzene	< 0.33	0.33	0.024	mg/kg wet							
1,4-Dichlorobenzene	< 0.33	0.33	0.023	mg/kg wet							
2,3,4,6-Tetrachlorophenol	< 0.67	0.67	0.061	mg/kg wet							
2,4,5-Trichlorophenol	< 0.67	0.67	0.029	mg/kg wet							
2,4,6-Trichlorophenol	< 0.67	0.67	0.056	mg/kg wet							
2,4-Dichlorophenol	< 0.67	0.67	0.053	mg/kg wet							
2,4-Dimethylphenol	< 0.67	0.67	0.14	mg/kg wet							
2,4-Dinitrophenol	< 0.67	0.67	0.023	mg/kg wet							
2,4-Dinitrotoluene	< 0.33	0.33	0.032	mg/kg wet							
2,6-Dichlorophenol	< 0.67	0.67	0.054	mg/kg wet							
2,6-Dinitrotoluene	< 0.33	0.33	0.051	mg/kg wet							
2-Chloronaphthalene	< 0.33	0.33	0.029	mg/kg wet							
2-Chlorophenol	< 0.67	0.67	0.056	mg/kg wet							
2-Methylnaphthalene	< 0.33	0.33	0.028	mg/kg wet							
2-Methylphenol	< 0.67	0.67	0.040	mg/kg wet							
2-Nitroaniline	< 0.33	0.33	0.030	mg/kg wet							
2-Nitrophenol	< 0.67	0.67	0.061	mg/kg wet							
3&4-Methylphenol	< 0.67	0.67	0.021	mg/kg wet							
3,3'-Dichlorobenzidine	< 1.6	1.6	0.080	mg/kg wet							
3-Nitroaniline	< 0.33	0.33	0.025	mg/kg wet							
4,6-Dinitro-2-methylphenol	< 0.67	0.67	0.051	mg/kg wet							
4-Bromophenyl phenyl ether	< 0.33	0.33	0.029	mg/kg wet							
4-Chloro-3-methylphenol	< 0.67	0.67	0.062	mg/kg wet							
4-Chloroaniline	< 0.67	0.67	0.028	mg/kg wet							
4-Chlorophenyl phenyl ether	< 0.33	0.33	0.030	mg/kg wet							
4-Nitroaniline	< 0.33	0.33	0.025	mg/kg wet							
4-Nitrophenol	< 0.67	0.67	0.072	mg/kg wet							
Acenaphthene	< 0.33	0.33	0.033	mg/kg wet							
Acenaphthylene	< 0.33	0.33	0.028	mg/kg wet							
Aniline	< 0.67	0.67	0.039	mg/kg wet							
Anthracene	< 0.33	0.33	0.026	mg/kg wet							
Benzidine	< 2.5	2.5	0.071	mg/kg wet							
Benzo(a)anthracene	< 0.33	0.33	0.028	mg/kg wet							
Benzo(a)pyrene	< 0.33	0.33	0.037	mg/kg wet							
Benzo(b)fluoranthene	< 0.33	0.33	0.034	mg/kg wet							
Benzo(g,h,i)perylene	< 0.33	0.33	0.027	mg/kg wet							



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Barr Engineering Co.
 4700 W 77th St
 Minneapolis, MN 55435

Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1004 - EPA 3545 ASE Extraction

Blank (B3F1004-BLK1)

Prepared & Analyzed: 06/10/13

Benzo(k)fluoranthene	< 0.33	0.33	0.033	mg/kg wet							
Benzoic acid	< 0.33	0.33	0.024	mg/kg wet							
Benzyl alcohol	< 0.67	0.67	0.20	mg/kg wet							
Bis(2-chloroethoxy)methane	< 0.33	0.33	0.034	mg/kg wet							
Bis(2-chloroethyl)ether	< 0.33	0.33	0.029	mg/kg wet							
Bis(2-chloroisopropyl)ether	< 0.33	0.33	0.030	mg/kg wet							
Bis(2-ethylhexyl)phthalate	< 0.33	0.33	0.035	mg/kg wet							
Butyl benzyl phthalate	< 0.33	0.33	0.030	mg/kg wet							
Carbazole	< 0.33	0.33	0.029	mg/kg wet							
Chrysene	< 0.33	0.33	0.030	mg/kg wet							
Dibenz(a,h)anthracene	< 0.33	0.33	0.023	mg/kg wet							
Dibenzofuran	< 0.33	0.33	0.035	mg/kg wet							
Diethyl phthalate	< 0.33	0.33	0.028	mg/kg wet							
Dimethyl phthalate	< 0.33	0.33	0.030	mg/kg wet							
Di-n-butyl phthalate	< 0.33	0.33	0.032	mg/kg wet							
Di-n-octyl phthalate	< 0.33	0.33	0.037	mg/kg wet							
Fluoranthene	< 0.33	0.33	0.028	mg/kg wet							
Fluorene	< 0.33	0.33	0.030	mg/kg wet							
Hexachlorobenzene	< 0.33	0.33	0.027	mg/kg wet							
Hexachlorobutadiene	< 0.33	0.33	0.029	mg/kg wet							
Hexachlorocyclopentadiene	< 0.33	0.33	0.069	mg/kg wet							
Hexachloroethane	< 0.33	0.33	0.029	mg/kg wet							
Indeno (1,2,3-cd) pyrene	< 0.33	0.33	0.028	mg/kg wet							
Isophorone	< 0.33	0.33	0.026	mg/kg wet							
Naphthalene	< 0.33	0.33	0.025	mg/kg wet							
Nitrobenzene	< 0.33	0.33	0.030	mg/kg wet							
N-Nitrosodimethylamine	< 0.33	0.33	0.024	mg/kg wet							
N-Nitrosodi-n-propylamine	< 0.33	0.33	0.028	mg/kg wet							
N-Nitrosodiphenylamine	< 0.33	0.33	0.015	mg/kg wet							
Pentachlorophenol	< 0.67	0.67	0.065	mg/kg wet							
Phenanthrene	< 0.33	0.33	0.026	mg/kg wet							
Phenol	< 0.67	0.67	0.050	mg/kg wet							
Pyrene	< 0.33	0.33	0.033	mg/kg wet							
Surrogate: 2,4,6-Tribromophenol	5.12			mg/kg wet	6.67		76.8	53-107			
Surrogate: 2-Fluorobiphenyl	3.86			mg/kg wet	6.67		57.9	53.9-97.9			
Surrogate: 2-Fluorophenol	3.64			mg/kg wet	6.67		54.5	42.5-94.9			
Surrogate: Nitrobenzene-d5	4.13			mg/kg wet	6.67		62.0	48.9-100			
Surrogate: Phenol-d6	4.37			mg/kg wet	6.67		65.6	50.4-99.6			
Surrogate: Terphenyl-d14	3.96			mg/kg wet	6.67		59.4	51-99.6			

Barr Engineering Co.
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Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1004 - EPA 3545 ASE Extraction

LCS (B3F1004-BS1)

Prepared & Analyzed: 06/10/13

1,2,4-Trichlorobenzene	2.10	0.33	0.025	mg/kg wet	3.33		62.9	50-100			
1,4-Dichlorobenzene	1.91	0.33	0.023	mg/kg wet	3.33		57.3	40-80			
2,4-Dinitrotoluene	2.48	0.33	0.032	mg/kg wet	3.33		74.4	50-90			
2-Chlorophenol	2.04	0.67	0.056	mg/kg wet	3.33		61.2	50-85			
4-Chloro-3-methylphenol	2.33	0.67	0.062	mg/kg wet	3.33		69.9	55-90			
4-Nitrophenol	2.44	0.67	0.072	mg/kg wet	3.33		73.3	45-100			
Anthracene	2.38	0.33	0.026	mg/kg wet	3.33		71.5	55-95			
Benzo(a)anthracene	2.34	0.33	0.028	mg/kg wet	3.33		70.1	55-100			
Benzo(a)pyrene	2.41	0.33	0.037	mg/kg wet	3.33		72.4	55-100			
Chrysene	2.34	0.33	0.030	mg/kg wet	3.33		70.1	55-100			
Fluoranthene	2.28	0.33	0.028	mg/kg wet	3.33		68.5	55-95			
Fluorene	2.26	0.33	0.030	mg/kg wet	3.33		67.8	55-95			
N-Nitrosodi-n-propylamine	2.30	0.33	0.028	mg/kg wet	3.33		69.1	50-90			
Pentachlorophenol	2.12	0.67	0.065	mg/kg wet	3.33		63.5	35-95			
Phenanthrene	2.38	0.33	0.026	mg/kg wet	3.33		71.4	55-95			
Phenol	2.01	0.67	0.050	mg/kg wet	3.33		60.4	50-85			
Surrogate: 2,4,6-Tribromophenol	4.78			mg/kg wet	6.67		71.8	53-107			
Surrogate: 2-Fluorobiphenyl	3.85			mg/kg wet	6.67		57.8	53.9-97.9			
Surrogate: 2-Fluorophenol	3.67			mg/kg wet	6.67		55.1	42.5-94.9			
Surrogate: Nitrobenzene-d5	3.94			mg/kg wet	6.67		59.0	48.9-100			
Surrogate: Phenol-d6	4.01			mg/kg wet	6.67		60.2	50.4-99.6			
Surrogate: Terphenyl-d14	4.24			mg/kg wet	6.67		63.7	51-99.6			

Matrix Spike (B3F1004-MS1)

Source: 1302545-04

Prepared & Analyzed: 06/10/13

1,2,4-Trichlorobenzene	2.71	0.37	0.028	mg/kg dry	3.74	<0.37	72.4	35-100			
1,4-Dichlorobenzene	2.53	0.37	0.026	mg/kg dry	3.74	<0.37	67.6	30-85			
2,4-Dinitrotoluene	2.96	0.37	0.036	mg/kg dry	3.74	<0.37	79.1	45-95			
2-Chlorophenol	2.64	0.75	0.063	mg/kg dry	3.74	<0.75	70.8	35-100			
4-Chloro-3-methylphenol	2.78	0.75	0.070	mg/kg dry	3.74	<0.75	74.4	35-100			
4-Nitrophenol	3.00	0.75	0.081	mg/kg dry	3.74	<0.75	80.3	40-100			
Anthracene	2.77	0.37	0.029	mg/kg dry	3.74	<0.37	74.1	55-100			
Benzo(a)anthracene	2.67	0.37	0.031	mg/kg dry	3.74	<0.37	71.5	50-100			
Benzo(a)pyrene	2.82	0.37	0.042	mg/kg dry	3.74	<0.37	75.5	50-100			
Chrysene	2.77	0.37	0.034	mg/kg dry	3.74	<0.37	74.0	50-100			
Fluoranthene	2.60	0.37	0.031	mg/kg dry	3.74	<0.37	69.5	50-100			
Fluorene	2.64	0.37	0.034	mg/kg dry	3.74	<0.37	70.6	50-100			
N-Nitrosodi-n-propylamine	2.87	0.37	0.031	mg/kg dry	3.74	<0.37	76.9	35-100			
Pentachlorophenol	3.04	0.75	0.073	mg/kg dry	3.74	<0.75	81.5	30-100			
Phenanthrene	2.77	0.37	0.029	mg/kg dry	3.74	<0.37	74.2	55-100			
Phenol	2.35	0.75	0.056	mg/kg dry	3.74	<0.75	62.8	35-100			

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Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1004 - EPA 3545 ASE Extraction

Matrix Spike (B3F1004-MS1)

Source: 1302545-04

Prepared & Analyzed: 06/10/13

Surrogate: 2,4,6-Tribromophenol	5.79			mg/kg dry	7.47		77.5	53-107			
Surrogate: 2-Fluorobiphenyl	4.67			mg/kg dry	7.47		62.5	53.9-97.9			
Surrogate: 2-Fluorophenol	4.58			mg/kg dry	7.47		61.3	42.5-94.9			
Surrogate: Nitrobenzene-d5	5.04			mg/kg dry	7.47		67.4	48.9-100			
Surrogate: Phenol-d6	4.98			mg/kg dry	7.47		66.6	50.4-99.6			
Surrogate: Terphenyl-d14	4.82			mg/kg dry	7.47		64.5	51-99.6			

Matrix Spike Dup (B3F1004-MSD1)

Source: 1302545-04

Prepared & Analyzed: 06/10/13

1,2,4-Trichlorobenzene	2.70	0.37	0.028	mg/kg dry	3.76	<0.37	71.8	35-100	0.310	20	
1,4-Dichlorobenzene	2.47	0.37	0.026	mg/kg dry	3.76	<0.37	65.8	30-85	2.15	20	
2,4-Dinitrotoluene	3.00	0.37	0.036	mg/kg dry	3.76	<0.37	79.9	45-95	1.50	20	
2-Chlorophenol	2.66	0.75	0.063	mg/kg dry	3.76	<0.75	70.8	35-100	0.660	20	
4-Chloro-3-methylphenol	2.84	0.75	0.070	mg/kg dry	3.76	<0.75	75.6	35-100	2.22	20	
4-Nitrophenol	3.02	0.75	0.081	mg/kg dry	3.76	<0.75	80.4	40-100	0.776	20	
Anthracene	2.82	0.37	0.029	mg/kg dry	3.76	<0.37	75.0	55-100	1.79	20	
Benzo(a)anthracene	2.67	0.37	0.031	mg/kg dry	3.76	<0.37	71.1	50-100	0.0554	20	
Benzo(a)pyrene	2.78	0.37	0.042	mg/kg dry	3.76	<0.37	74.0	50-100	1.44	20	
Chrysene	2.76	0.37	0.034	mg/kg dry	3.76	<0.37	73.5	50-100	0.146	20	
Fluoranthene	2.63	0.37	0.031	mg/kg dry	3.76	<0.37	70.1	50-100	1.46	20	
Fluorene	2.68	0.37	0.034	mg/kg dry	3.76	<0.37	71.4	50-100	1.66	20	
N-Nitrosodi-n-propylamine	2.96	0.37	0.031	mg/kg dry	3.76	<0.37	78.7	35-100	2.90	20	
Pentachlorophenol	3.05	0.75	0.073	mg/kg dry	3.76	<0.75	81.2	30-100	0.293	20	
Phenanthrene	2.83	0.37	0.029	mg/kg dry	3.76	<0.37	75.2	55-100	2.02	20	
Phenol	2.44	0.75	0.056	mg/kg dry	3.76	<0.75	65.0	35-100	3.96	20	
Surrogate: 2,4,6-Tribromophenol	5.86			mg/kg dry	7.52		78.0	53-107			
Surrogate: 2-Fluorobiphenyl	4.69			mg/kg dry	7.52		62.3	53.9-97.9			
Surrogate: 2-Fluorophenol	4.56			mg/kg dry	7.52		60.6	42.5-94.9			
Surrogate: Nitrobenzene-d5	5.11			mg/kg dry	7.52		68.0	48.9-100			
Surrogate: Phenol-d6	5.00			mg/kg dry	7.52		66.5	50.4-99.6			
Surrogate: Terphenyl-d14	4.89			mg/kg dry	7.52		65.1	51-99.6			



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Project: 23191170
 Project Number: 23191170
 Project Manager: Ms. Andrea Nord

Work Order #: 1302545
 Date Reported: 07/10/13

SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1118 - EPA 3510C (Sep Funnel)

Blank (B3F1118-BLK1)

Prepared: 06/11/13 Analyzed: 06/13/13

1,2,4-Trichlorobenzene	< 10	10	0.55	ug/L							
1,2-Dichlorobenzene	< 10	10	0.63	ug/L							
1,2-Diphenylhydrazine as Azobenzene	< 10	10	0.52	ug/L							
1,3-Dichlorobenzene	< 10	10	0.61	ug/L							
1,4-Dichlorobenzene	< 10	10	0.60	ug/L							
2,3,4,6-Tetrachlorophenol	< 10	10	1.2	ug/L							
2,4,5-Trichlorophenol	< 10	10	1.1	ug/L							
2,4,6-Trichlorophenol	< 10	10	0.95	ug/L							
2,4-Dichlorophenol	< 10	10	0.83	ug/L							
2,4-Dimethylphenol	< 10	10	0.80	ug/L							
2,4-Dinitrophenol	< 10	10	0.91	ug/L							
2,4-Dinitrotoluene	< 10	10	0.49	ug/L							
2,6-Dichlorophenol	< 10	10	1.2	ug/L							
2,6-Dinitrotoluene	< 10	10	0.43	ug/L							
2-Chloronaphthalene	< 10	10	0.46	ug/L							
2-Chlorophenol	< 10	10	0.93	ug/L							
2-Methylnaphthalene	< 10	10	0.92	ug/L							
2-Methylphenol	< 10	10	1.2	ug/L							
2-Nitroaniline	< 10	10	1.0	ug/L							
2-Nitrophenol	< 10	10	1.1	ug/L							
3&4-Methylphenol	< 10	10	0.85	ug/L							
3,3'-Dichlorobenzidine	< 25	25	4.9	ug/L							
3-Nitroaniline	< 10	10	0.91	ug/L							
4,6-Dinitro-2-methylphenol	< 10	10	0.83	ug/L							
4-Bromophenyl phenyl ether	< 10	10	0.53	ug/L							
4-Chloro-3-methylphenol	< 10	10	0.97	ug/L							
4-Chloroaniline	< 10	10	1.1	ug/L							
4-Chlorophenyl phenyl ether	< 10	10	0.49	ug/L							
4-Nitroaniline	< 10	10	1.0	ug/L							
4-Nitrophenol	< 10	10	1.3	ug/L							
Acenaphthene	< 10	10	0.52	ug/L							
Acenaphthylene	< 10	10	0.47	ug/L							
Aniline	< 10	10	1.9	ug/L							
Anthracene	< 10	10	0.48	ug/L							
Benzidine	< 100	100	14	ug/L							
Benzo(a)anthracene	< 10	10	0.41	ug/L							
Benzo(a)pyrene	< 10	10	0.42	ug/L							
Benzo(b)fluoranthene	< 10	10	0.46	ug/L							
Benzo(g,h,i)perylene	< 10	10	0.38	ug/L							



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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1118 - EPA 3510C (Sep Funnel)

Blank (B3F1118-BLK1)

Prepared: 06/11/13 Analyzed: 06/13/13

Benzo(k)fluoranthene	< 10	10	0.43	ug/L							
Benzoic acid	< 10	10	2.2	ug/L							
Benzyl alcohol	< 10	10	2.9	ug/L							
Bis(2-chloroethoxy)methane	< 10	10	0.49	ug/L							
Bis(2-chloroethyl)ether	< 10	10	0.52	ug/L							
Bis(2-chloroisopropyl)ether	< 10	10	0.50	ug/L							
Bis(2-ethylhexyl)phthalate	< 10	10	0.50	ug/L							
Butyl benzyl phthalate	< 10	10	0.54	ug/L							
Carbazole	< 10	10	0.42	ug/L							
Chrysene	< 10	10	0.35	ug/L							
Dibenz(a,h)anthracene	< 10	10	0.37	ug/L							
Dibenzofuran	< 10	10	0.91	ug/L							
Diethyl phthalate	< 10	10	0.52	ug/L							
Dimethyl phthalate	< 10	10	0.45	ug/L							
Di-n-butyl phthalate	< 10	10	0.46	ug/L							
Di-n-octyl phthalate	< 10	10	0.60	ug/L							
Fluoranthene	< 10	10	0.47	ug/L							
Fluorene	< 10	10	0.46	ug/L							
Hexachlorobenzene	< 10	10	0.50	ug/L							
Hexachlorobutadiene	< 10	10	0.78	ug/L							
Hexachlorocyclopentadiene	< 10	10	0.57	ug/L							
Hexachloroethane	< 10	10	0.79	ug/L							
Indeno (1,2,3-cd) pyrene	< 10	10	0.34	ug/L							
Isophorone	< 10	10	0.52	ug/L							
Naphthalene	< 10	10	0.51	ug/L							
Nitrobenzene	< 10	10	0.53	ug/L							
N-Nitrosodimethylamine	< 10	10	0.86	ug/L							
N-Nitrosodi-n-propylamine	< 10	10	0.48	ug/L							
N-Nitrosodiphenylamine	< 10	10	0.69	ug/L							
Pentachlorophenol	< 10	10	0.79	ug/L							
Phenanthrene	< 10	10	0.43	ug/L							
Phenol	< 10	10	0.93	ug/L							
Pyrene	< 10	10	0.50	ug/L							
Surrogate: 2,4,6-Tribromophenol	82.5			ug/L	100		82.5	30-122			
Surrogate: 2-Fluorobiphenyl	60.8			ug/L	100		60.8	39.2-104			
Surrogate: 2-Fluorophenol	52.0			ug/L	100		52.0	30-80.1			
Surrogate: Nitrobenzene-d5	70.7			ug/L	100		70.7	51.2-103			
Surrogate: Phenol-d6	58.3			ug/L	100		58.3	30-75.3			
Surrogate: Terphenyl-d14	58.0			ug/L	100		58.0	30-116			



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SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1118 - EPA 3510C (Sep Funnel)

LCS (B3F1118-BS1)

Prepared: 06/11/13 Analyzed: 06/13/13

1,2,4-Trichlorobenzene	67.6	10	0.55	ug/L	100		67.6	38-100			
1,4-Dichlorobenzene	66.6	10	0.60	ug/L	100		66.6	30-90			
2,4-Dinitrotoluene	88.3	10	0.49	ug/L	100		88.3	57-100			
2-Chlorophenol	68.2	10	0.93	ug/L	100		68.2	45-95			
4-Chloro-3-methylphenol	76.0	10	0.97	ug/L	100		76.0	52-100			
4-Nitrophenol	73.8	10	1.3	ug/L	100		73.8	30-100			
Anthracene	69.8	10	0.48	ug/L	100		69.8	60-100			
Benzo(a)anthracene	74.7	10	0.41	ug/L	100		74.7	64-100			
Benzo(a)pyrene	70.4	10	0.42	ug/L	100		70.4	60-100			
Chrysene	78.1	10	0.35	ug/L	100		78.1	60-100			
Fluoranthene	67.0	10	0.47	ug/L	100		67.0	63-100			
Fluorene	63.4	10	0.46	ug/L	100		63.4	59-100			
N-Nitrosodi-n-propylamine	83.6	10	0.48	ug/L	100		83.6	55-100			
Pentachlorophenol	85.9	10	0.79	ug/L	100		85.9	45-107			
Phenanthrene	73.3	10	0.43	ug/L	100		73.3	62-100			
Phenol	59.8	10	0.93	ug/L	100		59.8	30-80			
Surrogate: 2,4,6-Tribromophenol	85.3			ug/L	100		85.3	30-122			
Surrogate: 2-Fluorobiphenyl	65.6			ug/L	100		65.6	39.2-104			
Surrogate: 2-Fluorophenol	54.6			ug/L	100		54.6	30-80.1			
Surrogate: Nitrobenzene-d5	77.0			ug/L	100		77.0	51.2-103			
Surrogate: Phenol-d6	61.6			ug/L	100		61.6	30-75.3			
Surrogate: Terphenyl-d14	81.9			ug/L	100		81.9	30-116			

Matrix Spike (B3F1118-MS1)

Source: 1302580-01

Prepared: 06/11/13 Analyzed: 06/13/13

1,2,4-Trichlorobenzene	78.8	47	2.6	ug/L	93.5	<47	84.3	30-100			
1,4-Dichlorobenzene	79.7	47	2.8	ug/L	93.5	<47	85.2	30-90			
2,4-Dinitrotoluene	104	47	2.3	ug/L	93.5	<47	111	30-110			M1
2-Chlorophenol	73.0	47	4.3	ug/L	93.5	<47	78.2	30-100			
4-Chloro-3-methylphenol	73.5	47	4.5	ug/L	93.5	<47	78.7	30-113			
4-Nitrophenol	67.7	47	6.1	ug/L	93.5	<47	72.5	30-112			
Anthracene	88.0	47	2.2	ug/L	93.5	<47	94.2	30-119			
Benzo(a)anthracene	71.4	47	1.9	ug/L	93.5	<47	76.4	30-122			
Benzo(a)pyrene	69.6	47	2.0	ug/L	93.5	<47	74.4	30-118			
Chrysene	79.2	47	1.6	ug/L	93.5	<47	84.8	30-125			
Fluoranthene	83.6	47	2.2	ug/L	93.5	<47	89.4	30-119			
Fluorene	97.6	47	2.1	ug/L	93.5	<47	90.8	30-107			
N-Nitrosodi-n-propylamine	93.5	47	2.2	ug/L	93.5	<47	100	37-100			
Pentachlorophenol	48.4	47	3.7	ug/L	93.5	<47	51.8	30-130			
Phenanthrene	104	47	2.0	ug/L	93.5	<47	99.0	30-117			
Phenol	215	47	4.3	ug/L	93.5	206	8.95	30-80			M2

Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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SVOC 8270D - Quality Control
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
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Batch B3F1118 - EPA 3510C (Sep Funnel)

Matrix Spike (B3F1118-MS1)	Source: 1302580-01		Prepared: 06/11/13 Analyzed: 06/13/13							
Surrogate: 2,4,6-Tribromophenol	89.5		ug/L	93.5	95.8	30-122				
Surrogate: 2-Fluorobiphenyl	85.9		ug/L	93.5	91.9	39.2-104				
Surrogate: 2-Fluorophenol	54.6		ug/L	93.5	58.4	30-80.1				
Surrogate: Nitrobenzene-d5	90.3		ug/L	93.5	96.6	51.2-103				
Surrogate: Phenol-d6	53.2		ug/L	93.5	57.0	30-75.3				
Surrogate: Terphenyl-d14	79.6		ug/L	93.5	85.2	30-116				

Matrix Spike Dup (B3F1118-MSD1)	Source: 1302580-01		Prepared: 06/11/13 Analyzed: 06/13/13							
1,2,4-Trichlorobenzene	76.5	47	2.6 ug/L	93.5	<47	81.9	30-100	2.91	20	
1,4-Dichlorobenzene	78.1	47	2.8 ug/L	93.5	<47	83.6	30-90	1.98	20	
2,4-Dinitrotoluene	104	47	2.3 ug/L	93.5	<47	111	30-110	0.259	20	M1
2-Chlorophenol	73.0	47	4.3 ug/L	93.5	<47	78.1	30-100	0.0218	20	
4-Chloro-3-methylphenol	72.0	47	4.5 ug/L	93.5	<47	77.1	30-113	2.04	20	
4-Nitrophenol	59.6	47	6.1 ug/L	93.5	<47	63.8	30-112	12.8	34.3	
Anthracene	86.4	47	2.2 ug/L	93.5	<47	92.4	30-119	1.87	20	
Benzo(a)anthracene	70.0	47	1.9 ug/L	93.5	<47	74.9	30-122	1.93	20	
Benzo(a)pyrene	67.7	47	2.0 ug/L	93.5	<47	72.4	30-118	2.77	20	
Chrysene	77.1	47	1.6 ug/L	93.5	<47	82.5	30-125	2.76	20	
Fluoranthene	81.6	47	2.2 ug/L	93.5	<47	87.3	30-119	2.46	20	
Fluorene	95.7	47	2.1 ug/L	93.5	<47	88.8	30-107	1.97	20	
N-Nitrosodi-n-propylamine	96.3	47	2.2 ug/L	93.5	<47	103	37-100	2.99	20	M1
Pentachlorophenol	44.2	47	3.7 ug/L	93.5	<47	47.3	30-130	8.91	20	
Phenanthrene	103	47	2.0 ug/L	93.5	<47	98.0	30-117	0.964	20	
Phenol	210	47	4.3 ug/L	93.5	206	3.99	30-80	2.18	31.9	M2
Surrogate: 2,4,6-Tribromophenol	88.6		ug/L	93.5		94.8	30-122			
Surrogate: 2-Fluorobiphenyl	84.0		ug/L	93.5		89.9	39.2-104			
Surrogate: 2-Fluorophenol	53.4		ug/L	93.5		57.1	30-80.1			
Surrogate: Nitrobenzene-d5	89.9		ug/L	93.5		96.2	51.2-103			
Surrogate: Phenol-d6	52.1		ug/L	93.5		55.7	30-75.3			
Surrogate: Terphenyl-d14	79.0		ug/L	93.5		84.5	30-116			

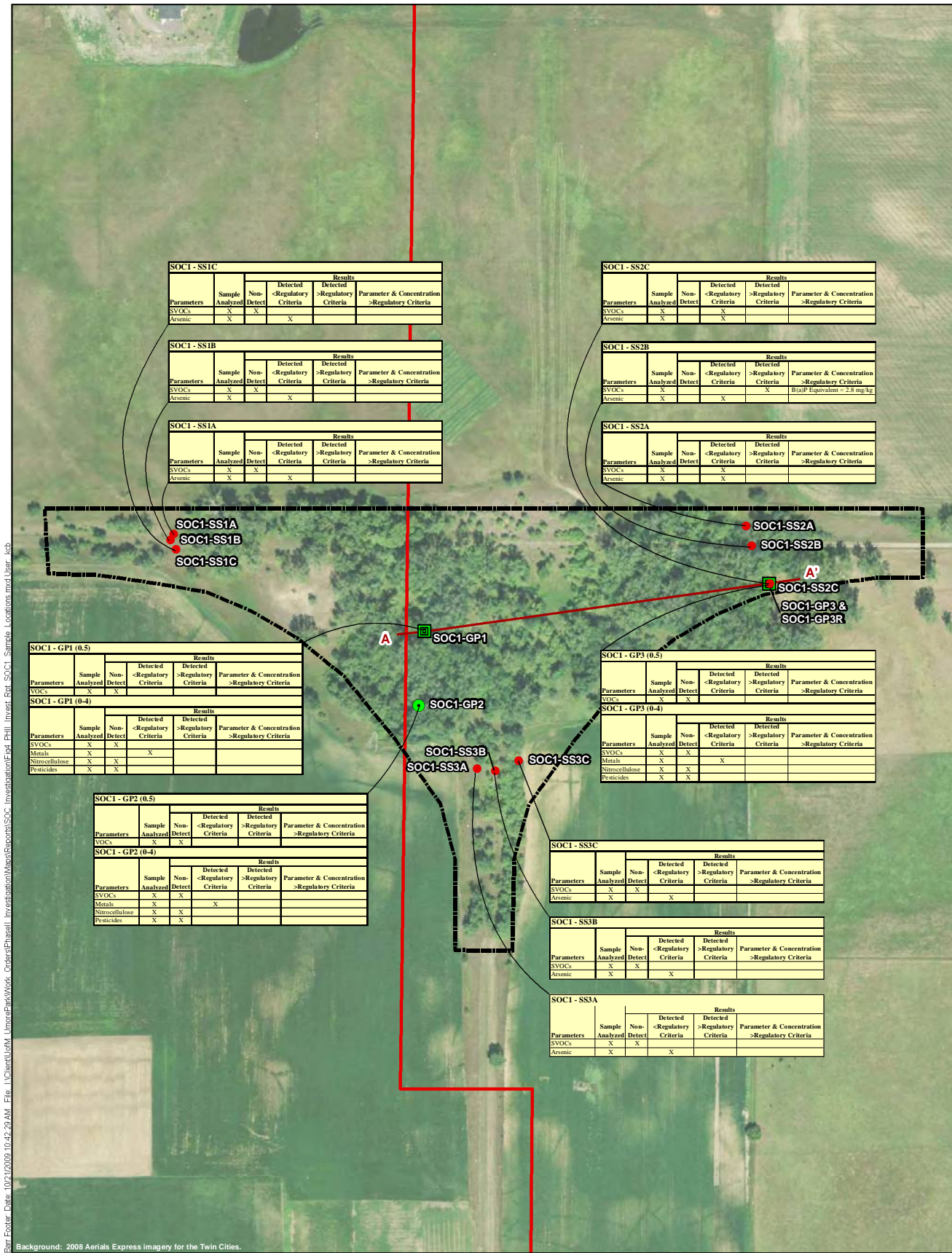


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Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 23191170 Project Number: 23191170 Project Manager: Ms. Andrea Nord	Work Order #: 1302545 Date Reported: 07/10/13
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Notes and Definitions

- T-1 MDH does not offer certification for this parameter.
- S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- M2 Matrix spike recovery was low, the associated blank spike recovery was acceptable.
- M1 Matrix spike recovery was high, the associated blank spike recovery was acceptable.
- < Less than value listed
- dry Sample results reported on a dry weight basis
- NA Not applicable. The %RPD is not calculated from values less than the reporting limit.
- MDL Method Detection Limit
- RL Reporting Limit
- RPD Relative Percent Difference
- LCS Laboratory Control Spike = Blank Spike (BS) = Laboratory Fortified Blank (LFB)
- MS Matrix Spike = Laboratory Fortified Matrix (LFM)



Background: 2008 Aerials Express Imagery for the Twin Cities.
 Barr, Eyster Date: 10/21/2009 10:42:29 AM, File: I:\Client\UrbN_UmorePark\Work_Order\PhaseII_Investigation\Map\Reports\SOC_Investigation\Map\Locations.mxd User: jcb

- Umore Mining Area (UMA)
- Site of Concern (SOC) Boundary
- Cross Section
- GPS Sample Locations (June 2009)
- Geoprobe Boring
- Groundwater Sampling Location
- Surface Soil Sample

X = parameter not detected above reporting limit
 X = parameter detected above reporting limit but below regulatory criteria

Sample Id	SOC1 - GPI (0-4)		Results		Parameter & Concentration
	Sample Analyzed	Non-Detect	<Regulatory Criteria	>Regulatory Criteria	
Planned Sample Parameters					
SVOCs	X				
Metals	X				
Nitrocellulose	X				
Pesticides	X				

X = parameter analyzed
 Details of detection above regulatory criteria
 X = parameter detected above regulatory criteria

Figure 4
 SOC 1 - RAILROAD "Y"
 SAMPLING LOCATIONS
 AND SOIL RESULTS
 Phase II Investigation Report
 Sites of Concern 1-3 and 6-8
 Umore Mining Area
 Dakota County, MN

