



**Georgia-Pacific**

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12 July 2021

Mr. Shingo Yamazaki  
Solid Waste Management Program, Industrial Section  
Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504

Subject: Georgia-Pacific Consumer Operations LLC – Camas Business Center  
Data Package  
KJ 2165001\*00

Dear Mr. Yamazaki:

This data package summarizes data related to investigation and closure activities completed at the Camas Business Center (CBC) and Fort James Specialty Chemicals (FJSC) parcel at Georgia-Pacific Consumer Products' (GP) Camas Mill located in Camas, Washington (site). This data package is being provided for Department of Ecology (Ecology) review in accordance with a conversation between Ecology and GP on June 23, 2021

The purpose of this data package is to provide a comprehensive summary of environmental data collected at the site. Therefore, activities that did not generate environmental data are not summarized herein. Data were collected during four mobilizations: 1) a 2000 preliminary assessment and site investigation; 2) a 2002 supplemental soil investigation; 3) a 2016 Phase II Environmental Site Assessment; and 4) a 2021 groundwater monitoring event. Building demolitions were completed in 2002 and 2021, and few structures remain at the site. A brief description of each data collection mobilization is below, and summary data tables for groundwater and soil samples collected at the CBC are presented in Attachment A and Attachment B, respectively. Sample locations are presented on Figure 1. Analytical laboratory reports are presented in Attachment C.

## **SAMPLING MOBILIZATIONS**

### **2000 Preliminary Assessment and Site Investigation by SECOR**

In 2000, a preliminary assessment of the CBC parcel was completed to evaluate potential exposure pathways for hazardous chemicals that may have been released to the environment from operations at the facility (SECOR 2000, 2001). The facility consisted of six buildings (Buildings 201 through 206), three tank farms, and a drum storage area. The associated investigation included 20 soil borings (GP1 through GP20) and installation of five monitoring wells (MW-1 through MW-5). Samples were analyzed for volatile organic compounds (VOCs), semi volatile organic compounds

(SVOCs), total petroleum hydrocarbons (TPH), and metals. Limited samples were analyzed for polychlorinated biphenyls (PCBs) as well. Analytical results indicated isolated impacts to soil and groundwater.

### **2002 Supplemental Soil Investigation by GP**

In 2002, a supplemental soil investigation was completed following demolition activities in August 2002 (Georgia Pacific 2002). A total of five test pits were excavated (four at the former facility and one background) and were sampled for analytes identified in previous investigation performed by SECOR. Analytes included TPH, VOCs, SVOCs, and PCBs.

### **2016 Phase II ESA by BergerABAM**

In 2016, a Phase II Environmental Site Assessment (ESA) was conducted to address data gaps in soil and groundwater (BergerABAM 2016). Field activities associated with the Phase II ESA included completion of 21 soil borings at 11 sampling locations, collection of soil samples from boring locations, and collection of groundwater samples from the five existing monitoring wells and one boring location where groundwater was observed. All soil and groundwater samples were analyzed for VOCs. Additional select soil samples were analyzed for TPHs, bis-2-ethylhexyl phthalate, and lead.

### **2021 Groundwater Monitoring by Kennedy Jenks**

In March 2021, groundwater samples were collected from the five existing monitoring wells (MW-1 through MW-5) to understand current conditions. Samples were analyzed for VOCs.

If you have any questions or comments, please contact me at 404.652.5243.

Sincerely,

Georgia-Pacific LLC

Matt Tiller

Manager - Remediation

#### **Enclosures**

Figure 1: Sampling Locations  
Attachment A: Groundwater Summary Table  
Attachment B: Soil Summary Table  
Attachment C: Laboratory Reports

Department of Ecology  
12 July 2021  
Page 3

cc: Rachel Morgan, Kennedy Jenks  
Jeremie Maehr, Kennedy Jenks

## **REFERENCES**

BergerABAM. 2016. Phase II Environmental Site Assessment, Former Fort James Specialty Chemicals Property. 16 August.

Georgia Pacific. 2002. Fort James Former Specialty Chemical Facility Supplemental Soil Investigation – Final Report. 6 November.

SECOR International Incorporated (SECOR). 2000. Preliminary Assessment – Former Specialty Chemicals, Inc. 26 July.

SECOR. 2001. 2000 Site Investigation Report – Former Fort James Specialty Chemicals. 17 January.

Figure

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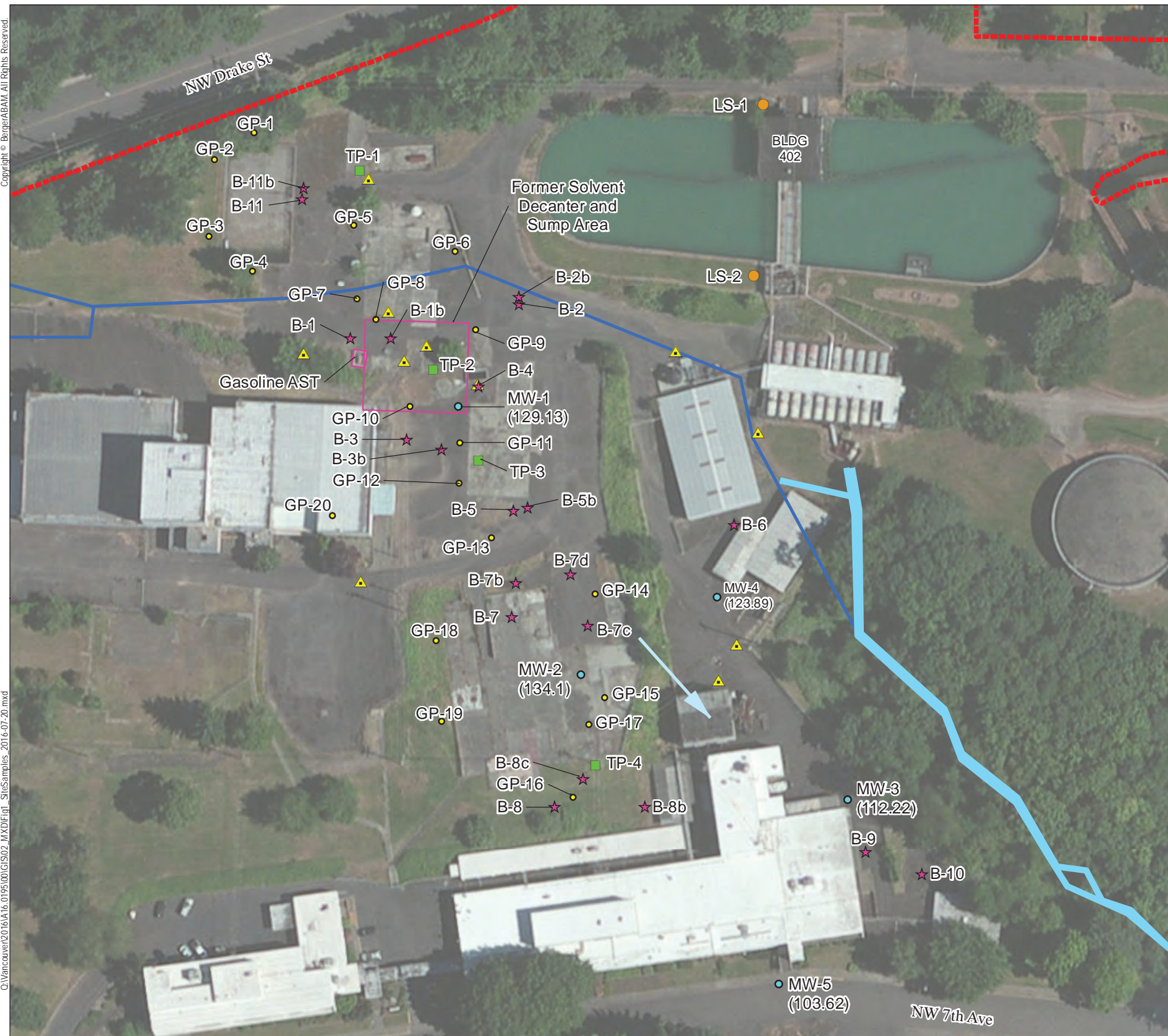


Figure 2 - Sample Locations and Groundwater Data For Chlorinated VOCs

Former Fort James Specialty Chemicals  
Phase II ESA  
Camas, Washington



**Notes:**

1. TP-5 samples were collected north of NW Drake St. and represent background soil conditions.
2. This figure was originally presented in the Phase II ESA prepared by BergerABAM in August 2016. Groundwater elevations shown are from July 2016.

**Legend**

- B-1 ★ Geoprobe samples (BergerABAM, July 2016)
- LS-1 ● Surface soil sample (BergerABAM, July 2016)
- GP-9 ● Geoprobe (Secor, 2000)
- TP-3 ■ Test Pit (Georgia Pacific, 2002)
- MW-1 (129.13) ● Monitoring Well (Ground Water Elevation in Feet Below Top of Casing)
- ▲ Storm Drain
- Storm Water
- Assumed Groundwater Gradient
- City Storm Water Line
- Project Site

**Kennedy/Jenks Consultants**

Camas Business Center and Fort James Specialty Chemicals  
Camas, Washington

Sampling Locations

KJ 2165001\*00

Figure 1

## Attachment A: Groundwater Summary Table

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Table A: Groundwater Summary Table

Well ID	Sample Date	Depth to Water from TOC (feet)	Surface Elevation (feet)	Groundwater Elevation	TPH-HCID (µg/L)			Total RCRA Metals (µg/L)								Volatile Organic Compounds (µg/L) <sup>(b)</sup>							PCBs (µg/L)			
					Gas	Diesel	Oil	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver	Selenium	PCE	TCE	1,1,1-trichloroethane	1,1-dichloroethene	cis-1,2-DCE	Vinyl Chloride	1,2-dichlorobenzene		Benzene	Chloro-benzene	
<b>Monitoring Wells <sup>(a)</sup></b>																										
MW-1	8/25/2000	32.35	161.33	128.98	<250	<630	<630	<1	<b>3.62</b>	<1	<1	<1	<1.25	<1	<1	<b>23.6</b>	<1.00	<1.00	<1.00	<b>2.39</b>	<1.00	<b>76.6</b>	<1.00	<b>11.1</b>	<0.5	
	11/10/2000	30.86		130.47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/19/2016	32.20		129.13	--	--	--	--	--	--	--	--	--	--	--	--	<b>2.00</b>	<1.00	<b>8.32</b>	<b>4.54</b>	<1.00	<1.00	<1.00	<0.300	<1.00	--
	3/18/2021	31.78		129.55	--	--	--	--	--	--	--	--	--	--	--	--	<b>0.94</b>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-2	8/25/2000	21.49	156	134.51	<b>732</b>	<630	<630	<b>2.68</b>	<b>62.5</b>	<1	<b>3.44</b>	<b>3.67</b>	<1.25	<1	<b>1.33</b>	<b>2.32</b>	<1.00	<b>2.71</b>	<1.00	<1.0	<1.00	<1.0	<1.00	<1.0	<0.5	
	11/10/2000	19.90		136.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/19/2016	21.90		134.10	--	--	--	--	--	--	--	--	--	--	--	--	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.300	<1.00	--
	3/18/2021	21.42		134.58	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-3	8/25/2000	14.80	125.82	111.02	<250	<630	<630	<1	<b>7.77</b>	<1	<1	<1	<1.25	<1	<1	<1.0	<b>17.5</b>	<1.0	<1.00	<1.0	<1.00	<1.0	<1.00	<1.0	<0.5	
	11/10/2000	14.96		110.86	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/19/2016	13.60		112.22	--	--	--	--	--	--	--	--	--	--	--	--	<1.00	<b>6.23</b>	<1.00	<b>1.19</b>	<1.00	<1.00	<1.00	<1.00	<0.300	<1.00
	3/18/2021	12.83		112.99	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	<b>8.2</b>	<0.50	<b>1.2</b>	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-4	11/10/2000	11.50	135.14	114.32	--	--	--	--	--	--	--	--	--	--	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.00	<1.00	<b>8.46</b>	<1.00	<b>3.36</b>	
	7/19/2016	11.25		123.89	--	--	--	--	--	--	--	--	--	--	--	--	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<b>1.85</b>	<0.300	<1.00
	3/18/2021	9.58		125.56	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-5	11/10/2000	12.75	122.12	113.07	--	--	--	--	--	--	--	--	--	--	--	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	--	
	7/20/2016	18.50		103.62	--	--	--	--	--	--	--	--	--	--	--	--	<1.00	<b>1.25</b>	<1.00	<1.00	<1.00	<1.00	<1.00	<0.300	<1.00	
	3/18/2021	15.78		106.34	--	--	--	--	--	--	--	--	--	--	--	--	<0.50	<b>1.2</b>	<0.50	<0.50	<b>0.51</b>	<0.50	<0.50	<0.50	<0.50	
<b>Grab Sample</b>																										
B-6(GW)	7/20/2016	(c)	(c)	(c)	--	--	--	--	--	--	--	--	--	--	--	<1.00	<1.00	<1.00	<1.00	<1.00	<20.0	<1.00	<b>0.4</b>	<b>3.84</b>	--	
<b>MTCA Cleanup Levels</b>																										
MTCA Method A					800	500	500	5	NE	5	50	15	2	NE	NE	5	5	200	400 <sup>(d)</sup>	16 <sup>(d)</sup>	0.2	720 <sup>(d)</sup>	5	160 <sup>(d)</sup>	0.1	
MTCA Method C Noncancer					NE	NE	NE	2.5	7,000	18	NE	NE	NE	180	180	110	8.8	35,000	880	35	53	160	70	350	NE	
MTCA Method C Cancer					NE	NE	NE	13	NE	NE	NE	NE	NE	NE	NE	210	9.5	NE	NE	NE	0.29	NE	8	NE	0.44	

**Notes:**

**Bold** = indicates the analyte was detected at a concentration greater than the laboratory method reporting limit.

<1.00 = The analyte was not detected. The associated numerical value is the laboratory method reporting limit.

**Blue** = exceeds the MTCA Method A cleanup level

-- = not analyzed or not reported

cis-1,2-DCE = cis-1,2-Dichloroethene

1,2-DCB = 1,2-Dichlorobenzene

MTCA = Washington State Model Toxics Control Act

RCRA = Resource Conservation and Recovery Act

NE = Not Established

TPH-HCID = Total Petroleum Hydrocarbon - Hydrocarbon Identification

µg/L = micrograms per liter

PCBs = Polychlorinated biphenyls

PCE = Tetrachloroethylene

TCE = Trichloroethylene

TOC = top of casing

(a) The wells were installed and sampled by SECOR in 2000. In July 2016, the wells were sampled by BergerABAM. In 2021, the wells were sampled by Kennedy Jenks.

(b) A complete summary of volatile organic compounds (VOCs) is presented in the analytical reports.

(c) Depth to water was measured as 31 feet relative to ground surface at boring B-6; however, the ground elevation at this location is not known and therefore, a groundwater elevation cannot be calculated.

(d) An MTCA Method A cleanup level has not been established. Method B cleanup level for unrestricted site use is presented.

(e) In 2000, chemical analysis performed by North Creek Analytical in Beaverton, Oregon. In 2016, chemical analysis performed by Specialty Analytical in Clackamas, Oregon. In 2021, chemical analysis performed by ALS Environmental in Kelso, Washington.

## Attachment B: Soil Summary Table

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# Attachment B Notes

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## **Notes:**

**Bold** = indicates the analyte was detected at a concentration greater than the laboratory method reporting limit

<1.00 = The analyte was not detected. The associated numerical value is the laboratory method reporting limit.

= exceeds the MTCA Method A cleanup level

-- = Not Analyzed

cis-1,2-DCE = cis-1,2-Dichloroethene

1,2-DCB = 1,2-Dichlorobenzene

1,3-DCB = 1,3-Dichlorobenzene

1,4-DCB = 1,2-Dichlorobenzene

MDB = 1,3-Benzodioxolylbutanamine

MTCA = Washington State Model Toxics Control Act

TCE = trichloroethylene

TIC = tentatively identified compounds

TPH-HCID = Total Petroleum Hydrocarbon - Hydrocarbon Identification

EPA = U.S. Environmental Protection Agency

PCBs = polychlorinated biphenyls

PCE = tetrachloroethylene

RCRA = Resource Conservation and Recovery Act

SVOCs = semi-volatile organic compounds

ft BGS = feet below ground surface

mg/kg = milligrams per kilogram

ND = Not detected

NE = Not Established

- (a) These values were presented in the Fort James Former Specialty Chemical Facility Supplemental Soil Investigation – Final Report prepared by Georgia Pacific in November 2002.
- (b) TIC VOC samples were extracted by EPA Method 5030A and analyzed by EPA Method 8260B. TIC SVOC samples were extracted by EPA Method 3541 and analyzed by EPA Method 8270C. If a compound was detected, it is listed in parenthesis.
- (c) Additional VOCs were included in the laboratory analysis; however, there were no additional VOC detections. A complete summary of VOCs is presented in the analytical reports.
- (d) In 2000, chemical analysis performed by North Creek Analytical in Beaverton, Oregon. In 2002, chemical analysis performed by Columbia Analytical Services in Kelso, Washington. In 2016, chemical analysis performed by Specialty Analytical in Clackamas, Oregon.
- (e) Multiple analytes were tentatively identified in the sample, most of which could not be determined. Additional detail is provided in the laboratory report. The concentration for the known analyte is presented; for unknown analytes, the sum is presented.

Table B.1 - Soil Summary Table

Sample Location ID	Sample Date	Sample Depth (ft BGS)	TPH-HCID (mg/kg)			Total RCRA Metals (mg/kg)								PCBs (mg/kg)
			Gas	Diesel	Oil	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Silver	Selenium	
<b>Borings</b>														
GP1	8/1/2000	2.5	<20	<50	<100	5.2	145	0.542	20.7	<10.0	<0.1	<1	0.988	--
GP2B	8/2/2000	7.5	<20	<50	<100	1.29	143	<0.5	23	<10	<0.1	<1	0.637	--
GP3	8/1/2000	14	<20	<50	<100	6.46	114	<0.5	24.8	14.5	<0.1	<1	0.588	--
GP4	8/1/2000	19	<20	<50	<100	5.76	155	<0.5	48.3	17.7	<0.1	<1	0.939	--
GP5	8/1/2000	4.5	<20	<50	<100	1.32	91.9	<0.5	4.54	<10	<0.1	<1	1.37	--
GP6	8/1/2000	17.5	<20	<50	<100	5.46	126	<0.5	29.4	12.5	<0.1	<1	0.921	--
GP7C	8/1/2000	6	<20	<50	<100	0.629	53	<0.5	3.01	<10.0	0.442	<1	0.824	--
GP9	8/1/2000	12	<20	<50	<100	1.3	104	<0.5	88.3	10.4	<0.1	<1	0.769	--
GP9	8/1/2000	27.5	<20	<50	<100	0.687	74.1	<0.5	59	11.9	<0.1	<1	0.874	--
GP10	8/1/2000	21.5	<20	<50	<100	<0.5	120	<0.5	116	<10.0	<0.1	<1	1.06	--
GP14	8/2/2000	8	<20	<50	<100	<0.5	41.8	<0.5	1.4	<10.0	<0.1	<1	<0.5	--
GP17	8/2/2000	6	--	--	--	--	--	--	--	--	--	--	--	0.289 (Aroclor 1248)
GP17C	8/2/2000	11.5	--	--	--	--	--	--	--	--	--	--	--	ND
GP18	8/3/2000	1.5	--	--	--	4.04	499	1.73	19.3	25.6	0.676	<1	0.56	--
GP19	8/3/2000	1.5	--	--	--	4.41	99.5	1.54	23.6	29.6	0.194	<1	0.737	--
GP20	8/3/2000	5.5	<20	<50	<100	--	--	--	--	--	--	--	--	--
B-9(6')	7/20/2016	6	<24.7	<61.7	<123	--	--	--	--	--	--	--	--	--
B-9(12')	7/20/2016	12	--	--	--	--	--	--	--	--	--	--	--	--
B-10(8')	7/20/2016	8	<24.3	<60.7	<121	--	--	--	--	--	--	--	--	--
<b>Test Pits</b>														
TP 1-1	8/15/2002	1.3	<20	140 <sup>(a)</sup>	170 <sup>(a)</sup>	--	--	--	--	--	--	--	--	--
TP 1-2	8/15/2002	3	<20	<50	<100	--	--	--	--	--	--	--	--	--
TP4-1	8/15/2002	1.5	--	--	--	--	--	--	--	--	--	--	--	ND
TP4-2	8/15/2002	3.8	--	--	--	--	--	--	--	--	--	--	--	ND
TP 5-2 (bkgd)	8/15/2002	3.5	<20	<50	150 <sup>(a)</sup>	--	--	--	--	--	--	--	--	ND
<b>Surface Samples</b>														
LS-1	7/19/2016	1	--	--	--	--	--	--	--	345	--	--	--	--
LS-2	7/19/2016	1	--	--	--	--	--	--	--	27.7	--	--	--	--
<b>MTCA Cleanup Levels</b>														
Method A Unrestricted			100	2,000	2,000	20	NE	2	NE	250	2	NE	NE	1
Method A Industrial Properties			100	2,000	2,000	20	NE	2	NE	1000	2	NE	NE	1
Method B Noncancer			NE	NE	NE	24	16,000	80	NE	NE	NE	400	400	NE
Method B Cancer			NE	NE	NE	0.67	NE	NE	NE	NE	NE	NE	NE	0.5
Method C Noncancer			NE	NE	NE	1,100	700,000	3,500	NE	NE	NE	18000	18000	NE
Method C Cancer			NE	NE	NE	88	NE	NE	NE	NE	NE	NE	NE	66



Table B.2 - Soil Summary Table

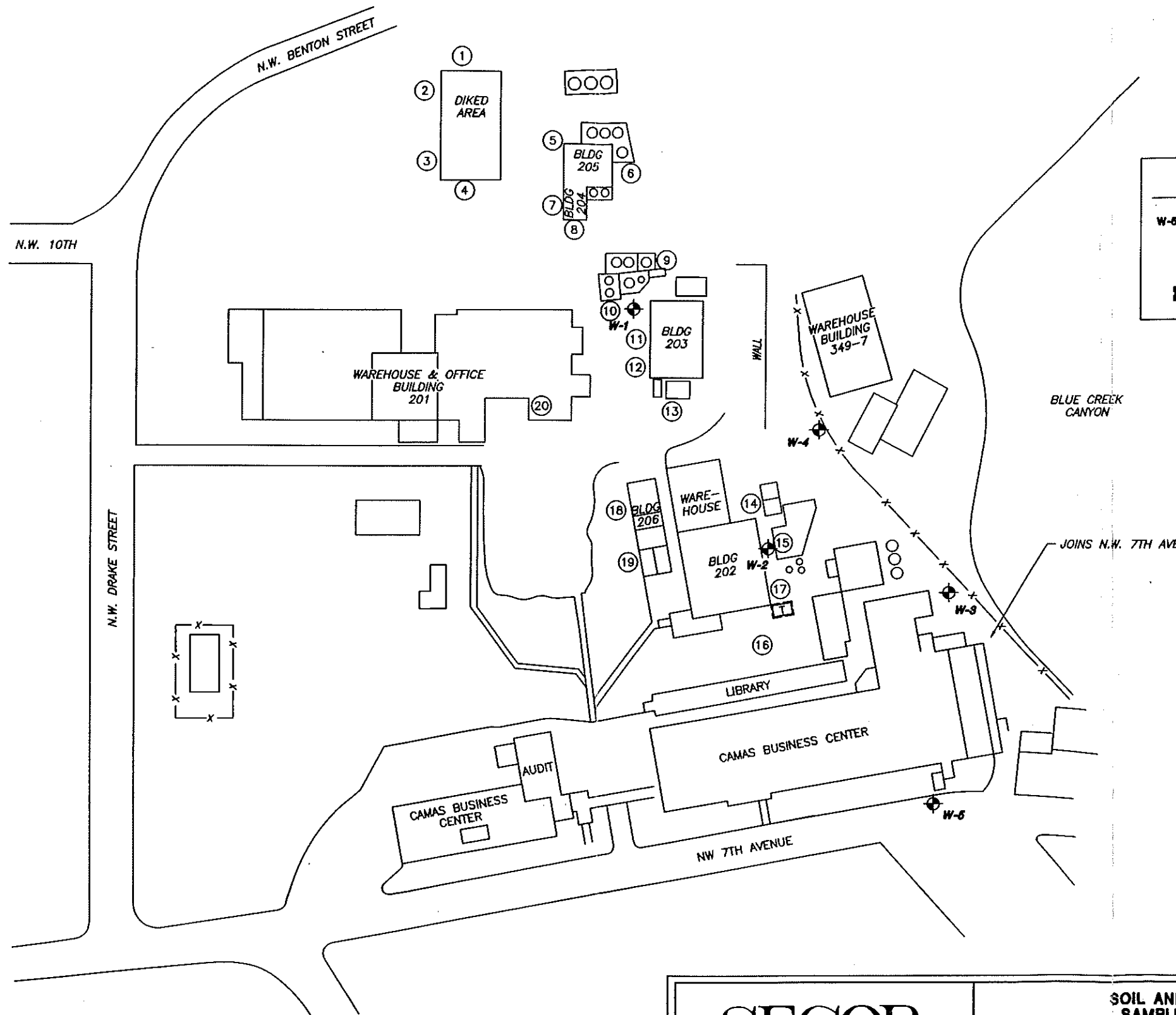
Sample Location ID	Sample Date	Sample Depth (ft BGS)	VOCs (mg/kg)														TIC VOCs (mg/kg) <sup>(b)</sup>	SVOCs (mg/kg)				TIC SVOCs (mg/kg) <sup>(b)</sup>
			PCE	TCE	Acetone	1,1,1-trichloro-ethane	1,1-dichloro-ethene	cis-1,2-DCE	Vinyl Chloride	1,2-DCB	1,4-DCB	Benzene	Chloro-benzene	1,3-DCB	Methylene Chloride	All Other VOCs		Benzyl Alcohol	1,2-DCB	Bis(2-ethylhexyl) phthalate	All Other SVOCs	
<b>Test Pits</b>																						
TP2-1	8/15/2002	1.5	<0.0061	<0.0061	<0.061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	<0.013	ND	ND	2.8	<0.41	<0.41	ND	0.5 (Benzaldehyde) 0.64 (Hexadecanoic Acid, Butyl Ester) 0.51 (Octadecanoic Acid, Butyl Ester)
TP2-2	8/15/2002	3.2	<0.0064	<0.0064	<0.064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	<0.013	ND	ND	<0.43	<0.43	<0.43	ND	0.23 (Unknown Amide)
TP3-1	8/15/2002	1.2	0.05	<0.0054	<0.054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.011	ND	ND	<0.37	<0.37	<0.37	ND	0.46 (Unknown Organic Acid) 0.34 (Octadecanoic Acid, Butyl Ester) 0.16 (Unknown Alkane) 0.15 (Unknown Alkane)
TP3-2	8/15/2002	3.8	0.013	<0.0063	<0.063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.013	ND	ND	<0.42	<0.42	<0.42	ND	ND
TP4-1	8/15/2002	1.5	<0.0062	<0.0062	<0.062	<0.0062	<0.0062	<0.0062	<0.0062	29	0.13	<0.0062	0.054	0.033	<0.013	ND	ND	--	--	--	--	--
TP4-2	8/15/2002	3.8	0.0094	<0.0063	<0.063	<0.0063	<0.0063	<0.0063	<0.0063	14	0.1	<0.0063	0.022	0.017	<0.013	ND	ND	--	--	--	--	--
TP 5-1 (bkgd)	8/15/2002	1.5	<0.0058	<0.0058	<0.058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.012	ND	ND	<0.38	<0.38	<0.38	ND	0.24 (gamma-Sitosterol) 14.16 <sup>(e)</sup>
TP 5-2 (bkgd)	8/15/2002	3.5	<0.0058	<0.0058	<0.058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.013	ND	0.007 (3-Carene)	<0.39	<0.39	<0.39	ND	0.23 (Hexadecanoic Acid, Butyl Ester) 0.24 (Tricosane) 0.38 (Docosanoic Acid, Ethyl Ester) 12.08 <sup>(e)</sup>
<b>MTCA Cleanup Levels</b>																						
Method A Unrestricted			0.05	0.03	NE	2	NE	NE	NE	NE	NE	NE	0.03	NE	NE	0.02	NE	NE	NE	NE	NE	NE
Method A Industrial Properties			0.05	0.03	NE	2	NE	NE	NE	NE	NE	NE	0.03	NE	NE	0.02	NE	NE	NE	NE	NE	NE
Method B Noncancer			480	40	72,000	160,000	16,000	160	240	7,200	5,600	320	1,600	NE	480	NE	NE	8000	7,200	1,600	NE	8000 (Benzaldehyde)
Method B Cancer			480	12	NE	NE	180	NE	0.67	NE	190	18	NE	NE	94	NE	NE	NE	NE	71	NE	250 (Benzaldehyde)
Method C Noncancer			21,000	1,800	3,200,000	7,000,000	70,000	7,000	11,000	320,000	250,000	14,000	70000	NE	21,000	NE	NE	350,000	320,000	70,000	NE	350,000 (Benzaldehyde)
Method C Cancer			63,000	2,900	NE	NE	23000	NE	88	NE	24,000	2,400	NE	NE	66,000	NE	NE	NE	NE	1,900	NE	33,000 (Benzaldehyde)



## Attachment C: Laboratory Reports

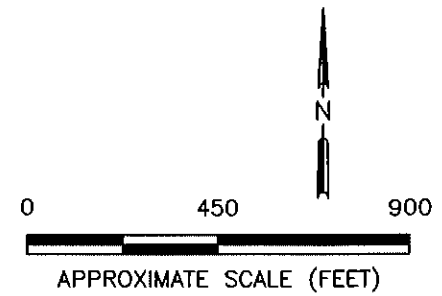
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# 2000 Site Investigation Report



**LEGEND**

- x — FENCELINE
- W-5 GROUNDWATER MONITORING WELL LOCATION
- ① GEOPROBE BORING LOCATION
- ABOVEGROUND STORAGE TANKS
- ☐ TRANSFORMER LOCATION



<h1>SECOR</h1> <p><i>International Incorporated</i> 015</p>	<b>SOIL AND GROUNDWATER SAMPLING LOCATIONS</b> <b>FORT JAMES CORPORATION</b> <b>SPECIALTY CHEMICALS</b> <b>CAMAS, WASHINGTON</b>	FIGURE:  <h1>3</h1>
	JOB#: 015.08860.003    APPR: <i>[Signature]</i> DWN: KPM	DATE: 12/06/00

F:\FILES\PORTLAND\FORT JAMES

**APPENDIX B**  
**LABORATORY ANALYTICAL REPORTS**  
**SOIL SAMPLES**

2000 Site Investigation Report  
Former Fort James Specialty Chemicals  
906 NW Drake Street  
Camas, Washington  
SECOR PN: 015.08860.002  
January 17, 2001



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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GP1	P008088-01	Soil	08/01/00 08:09	08/03/00 16:00
GP3	P008088-03	Soil	08/01/00 09:00	08/03/00 16:00
GP4	P008088-04	Soil	08/01/00 09:45	08/03/00 16:00
GP5	P008088-05	Soil	08/01/00 10:22	08/03/00 16:00
GP6	P008088-06	Soil	08/01/00 13:18	08/03/00 16:00
GP7C	P008088-09	Soil	08/01/00 14:03	08/03/00 16:00
GP8	P008088-10	Soil	08/01/00 11:50	08/03/00 16:00
GP9 @ 12'	P008088-12	Soil	08/01/00 14:35	08/03/00 16:00
GP9 @ 27.5'	P008088-13	Soil	08/01/00 15:00	08/03/00 16:00
GP10	P008088-14	Soil	08/01/00 15:43	08/03/00 16:00
GP11	P008088-15	Soil	08/01/00 16:12	08/03/00 16:00
GP12	P008088-16	Soil	08/02/00 08:15	08/03/00 16:00
GP13	P008088-17	Soil	08/02/00 08:48	08/03/00 16:00
GP14 @ 8'	P008088-19	Soil	08/02/00 09:50	08/03/00 16:00
GP15	P008088-20	Soil	08/02/00 14:20	08/03/00 16:00
GP16	P008088-21	Soil	08/03/00 08:10	08/03/00 16:00
GP17 @ 6'	P008088-23	Soil	08/02/00 10:35	08/03/00 16:00
GP17C @ 11.5'	P008088-25	Soil	08/02/00 11:48	08/03/00 16:00
GP18	P008088-26	Soil	08/03/00 09:15	08/03/00 16:00
GP19	P008088-27	Soil	08/03/00 08:55	08/03/00 16:00
GP20	P008088-28	Soil	08/03/00 09:50	08/03/00 16:00
GP2B	P008088-29	Soil	08/02/00 17:17	08/03/00 16:00

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Decor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Hydrocarbon Identification per NW-TPH Methodology  
 North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP1 (P008088-01) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	<i>109 %</i>	<i>50-150</i>							
<b>GP3 (P008088-03) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	<i>114 %</i>	<i>50-150</i>							
<b>GP4 (P008088-04) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	<i>105 %</i>	<i>50-150</i>							
<b>GP5 (P008088-05) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	<i>106 %</i>	<i>50-150</i>							
<b>GP6 (P008088-06) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	<i>93.5 %</i>	<i>50-150</i>							

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 Lisa Domenighini, Project Manager

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Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Hydrocarbon Identification per NW-TPH Methodology

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP7C (P008088-09) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/09/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	99.1 %	50-150							
<b>GP9 @ 12' (P008088-12) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	100 %	50-150							
<b>GP9 @ 27.5' (P008088-13) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	102 %	50-150							
<b>GP10 (P008088-14) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	108 %	50-150							
<b>GP14 @ 8' (P008088-19) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	98.0 %	50-150							

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Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Hydrocarbon Identification per NW-TPH Methodology**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/03/00		Received: 08/03/00	
<b>GP20 (P008088-28) Soil</b>									
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	<i>111 %</i>	<i>50-150</i>							
						Sampled: 08/02/00		Received: 08/03/00	
<b>GP2B (P008088-29) Soil</b>									
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	08/07/00	08/08/00	0080170	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	<i>98.0 %</i>	<i>50-150</i>							

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
--	---	-----------------------------

**Total Metals per EPA 6000/7000 Series Methods  
 North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
---------	--------	-----------------	-------	----------	--------	----------	----------	-------	-------

GP1 (P008088-01) Soil					Sampled: 08/01/00 Received: 08/03/00				
Arsenic	5.20	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	145	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	0.542	0.500	"	"	"	"	"	"	
Chromium	20.7	0.500	"	"	"	"	"	"	
Lead	ND	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.988	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

GP3 (P008088-03) Soil					Sampled: 08/01/00 Received: 08/03/00				
Arsenic	6.46	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	114	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	24.8	0.500	"	"	"	"	"	"	
Lead	14.5	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.588	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

GP4 (P008088-04) Soil					Sampled: 08/01/00 Received: 08/03/00				
Arsenic	5.76	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	155	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	48.3	0.500	"	"	"	"	"	"	
Lead	17.7	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.939	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00 Received: 08/03/00			
<b>GP5 (P008088-05) Soil</b>									
Arsenic	1.32	0.500	mg/kg dry	1	EPA 6020	08/11/00	08/17/00	0080303	
Barium	91.9	0.500	"	"	EPA 6010A	08/11/00	08/14/00	0080304	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	4.54	0.500	"	"	"	"	"	"	
Lead	ND	10.0	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	1.37	0.500	"	"	EPA 6020	08/11/00	08/17/00	0080303	
Silver	ND	1.00	"	"	EPA 6010A	08/11/00	08/14/00	0080304	

						Sampled: 08/01/00 Received: 08/03/00			
<b>GP6 (P008088-06) Soil</b>									
Arsenic	5.46	0.500	mg/kg dry	1	EPA 6020	08/11/00	08/22/00	0080303	
Barium	126	0.500	"	"	EPA 6010A	08/11/00	08/14/00	0080304	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	29.4	0.500	"	"	"	"	"	"	
Copper	12.5	10.0	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.921	0.500	"	"	EPA 6020	08/11/00	08/17/00	0080303	
Silver	ND	1.00	"	"	EPA 6010A	08/11/00	08/14/00	0080304	

						Sampled: 08/01/00 Received: 08/03/00			
<b>GP7C (P008088-09) Soil</b>									
Arsenic	0.629	0.500	mg/kg dry	1	EPA 6020	08/11/00	08/22/00	0080303	
Barium	53.0	0.500	"	"	EPA 6010A	08/11/00	08/14/00	0080304	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	3.01	0.500	"	"	"	"	"	"	
Lead	ND	10.0	"	"	"	"	"	"	
Mercury	0.442	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.824	0.500	"	"	EPA 6020	08/11/00	08/17/00	0080303	
Silver	ND	1.00	"	"	EPA 6010A	08/11/00	08/14/00	0080304	

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Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP9 @ 12' (P008088-12) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
Arsenic	1.30	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	104	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	88.3	0.500	"	"	"	"	"	"	
Lead	10.4	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.769	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
<b>GP9 @ 27.5' (P008088-13) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
Arsenic	0.687	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	74.1	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	59.0	0.500	"	"	"	"	"	"	
Lead	11.9	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.874	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
<b>GP10 (P008088-14) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
Arsenic	ND	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	120	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	116	0.500	"	"	"	"	"	"	
Lead	ND	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	1.06	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

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Page 7 of 98

ACCOR  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**GP14 @ 8' (P008088-19) Soil**

Sampled: 08/02/00 Received: 08/03/00

Arsenic	ND	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	41.8	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	1.40	0.500	"	"	"	"	"	"	
Lead	ND	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	ND	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

**GP18 (P008088-26) Soil**

Sampled: 08/03/00 Received: 08/03/00

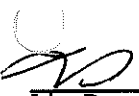
Arsenic	4.04	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	499	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	1.73	0.500	"	"	"	"	"	"	
Chromium	19.3	0.500	"	"	"	"	"	"	
Lead	25.6	10.0	"	"	"	"	08/14/00	"	
Mercury	0.676	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.560	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

**GP19 (P008088-27) Soil**

Sampled: 08/03/00 Received: 08/03/00

Arsenic	4.41	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	99.5	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	1.54	0.500	"	"	"	"	"	"	
Chromium	23.6	0.500	"	"	"	"	"	"	
Lead	29.6	10.0	"	"	"	"	08/14/00	"	
Mercury	0.194	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.737	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

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Page 8 of 98

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Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP2B (P008088-29) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
Arsenic	1.29	0.500	mg/kg dry	1	EPA 6020	08/08/00	08/17/00	0080209	
Barium	143	0.500	"	"	EPA 6010A	08/07/00	08/14/00	0080175	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	23.0	0.500	"	"	"	"	"	"	
Lead	ND	10.0	"	"	"	"	08/14/00	"	
Mercury	ND	0.100	"	"	EPA 7471A	08/11/00	08/11/00	0080296	
Selenium	0.637	0.500	"	"	EPA 6020	08/08/00	08/17/00	0080209	
Silver	ND	1.00	"	"	EPA 6010A	08/07/00	08/14/00	0080175	

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Page 9 of 98



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 541.383.9310 fax 541.382.7588

Accor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Polychlorinated Biphenyls per EPA Method 8082**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00	Received: 08/03/00		
<b>GP17 @ 6' (P008088-23) Soil</b>									
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	08/07/00	08/14/00	0080178	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
<b>Aroclor 1248</b>	<b>289</b>	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	55.1 %	63-119							S-07
<i>Surr: Decachlorobiphenyl</i>	75.5 %	52-131							

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00	Received: 08/03/00		
<b>GP17C @ 11.5' (P008088-25) Soil</b>									
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	08/07/00	08/10/00	0080178	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	100 %	63-119							
<i>Surr: Decachlorobiphenyl</i>	92.6 %	52-131							

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 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP1 (P008088-01) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Page 11 of 98



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Cor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00		Received: 08/03/00	
<b>GP1 (P008088-01) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	I	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	90.9 %	70-130							
Surr: 1,2-DCA-d4	92.1 %	70-130							
Surr: Dibromofluoromethane	87.1 %	70-130							
Surr: Toluene-d8	83.0 %	70-130							

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 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP3 (P008088-03) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	i	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Decor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00 Received: 08/03/00			
<b>GP3 (P008088-03) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
<i>Surr: 4-BFB</i>	93.0 %	70-130							
<i>Surr: 1,2-DCA-d4</i>	90.7 %	70-130							
<i>Surr: Dibromofluoromethane</i>	86.4 %	70-130							
<i>Surr: Toluene-d8</i>	87.6 %	70-130							

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 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP4 (P008088-04) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Page 15 of 98

Decor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt


 Reported:  
 08/24/00 08:39

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00		
<b>GP4 (P008088-04) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
<i>Surr: 4-BFB</i>	95.5 %	70-130							
<i>Surr: 1,2-DCA-d4</i>	87.1 %	70-130							
<i>Surr: Dibromofluoromethane</i>	86.0 %	70-130							
<i>Surr: Toluene-d8</i>	86.7 %	70-130							

North Creek Analytical - Portland

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 Lisa Domenighini, Project Manager

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Page 16 of 98



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 541.383.9310 fax 541.382.7588

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP9 @ 12' (P008088-12) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Page 17 of 98



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Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00 Received: 08/03/00			
<b>GP9 @ 12' (P008088-12) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	2950	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	93.6 %	70-130							
Surr: 1,2-DCA-d4	91.4 %	70-130							
Surr: Dibromofluoromethane	86.9 %	70-130							
Surr: Toluene-d8	88.8 %	70-130							

North Creek Analytical - Portland

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North Creek Analytical, Inc.  
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Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP9 @ 27.5' (P008088-13) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager



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Corporation  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00 Received: 08/03/00			
<b>GP9 @ 27.5' (P008088-13) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	94.6 %	70-130							
Surr: 1,2-DCA-d4	93.8 %	70-130							
Surr: Dibromofluoromethane	90.0 %	70-130							
Surr: Toluene-d8	93.8 %	70-130							

North Creek Analytical - Portland

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes	
<b>GP10 (P008088-14) Soil</b>						Sampled: 08/01/00		Received: 08/03/00		I-02
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135		
Benzene	ND	100	"	"	"	"	"	"		
Bromobenzene	ND	100	"	"	"	"	"	"		
Bromochloromethane	ND	100	"	"	"	"	"	"		
Bromodichloromethane	ND	100	"	"	"	"	"	"		
Bromoform	ND	100	"	"	"	"	"	"		
Bromomethane	ND	500	"	"	"	"	"	"		
2-Butanone	ND	1000	"	"	"	"	"	"		
n-Butylbenzene	ND	500	"	"	"	"	"	"		
sec-Butylbenzene	ND	100	"	"	"	"	"	"		
tert-Butylbenzene	ND	100	"	"	"	"	"	"		
Carbon disulfide	ND	1000	"	"	"	"	"	"		
Carbon tetrachloride	ND	100	"	"	"	"	"	"		
Chlorobenzene	ND	100	"	"	"	"	"	"		
Chloroethane	ND	100	"	"	"	"	"	"		
Chloroform	ND	100	"	"	"	"	"	"		
Chloromethane	ND	500	"	"	"	"	"	"		
2-Chlorotoluene	ND	100	"	"	"	"	"	"		
4-Chlorotoluene	ND	100	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"		
Dibromochloromethane	ND	100	"	"	"	"	"	"		
1,2-Dibromoethane	ND	100	"	"	"	"	"	"		
Dibromomethane	ND	100	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"		
1,1-Dichloroethane	ND	100	"	"	"	"	"	"		
1,2-Dichloroethane	ND	100	"	"	"	"	"	"		
1,1-Dichloroethene	ND	100	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"		
1,2-Dichloropropane	ND	100	"	"	"	"	"	"		
1,3-Dichloropropane	ND	100	"	"	"	"	"	"		
2,2-Dichloropropane	ND	100	"	"	"	"	"	"		
1,1-Dichloropropene	ND	100	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"		
Ethylbenzene	ND	100	"	"	"	"	"	"		

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
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Decor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00	<b>1-02</b>	
<b>GP10 (P008088-14) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>250</b>	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
<i>Surr: 4-BFB</i>	82.0 %	70-130							
<i>Surr: 1,2-DCA-d4</i>	87.2 %	70-130							
<i>Surr: Dibromofluoromethane</i>	79.7 %	70-130							
<i>Surr: Toluene-d8</i>	83.9 %	70-130							

North Creek Analytical - Portland

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes	
<b>GP11 (P008088-15) Soil</b>						Sampled: 08/01/00		Received: 08/03/00		<b>I-02</b>
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135		
Benzene	ND	100	"	"	"	"	"	"		
Bromobenzene	ND	100	"	"	"	"	"	"		
Bromochloromethane	ND	100	"	"	"	"	"	"		
Bromodichloromethane	ND	100	"	"	"	"	"	"		
Bromoform	ND	100	"	"	"	"	"	"		
Bromomethane	ND	500	"	"	"	"	"	"		
2-Butanone	ND	1000	"	"	"	"	"	"		
n-Butylbenzene	ND	500	"	"	"	"	"	"		
sec-Butylbenzene	ND	100	"	"	"	"	"	"		
tert-Butylbenzene	ND	100	"	"	"	"	"	"		
Carbon disulfide	ND	1000	"	"	"	"	"	"		
Carbon tetrachloride	ND	100	"	"	"	"	"	"		
Chlorobenzene	ND	100	"	"	"	"	"	"		
Chloroethane	ND	100	"	"	"	"	"	"		
Chloroform	ND	100	"	"	"	"	"	"		
Chloromethane	ND	500	"	"	"	"	"	"		
2-Chlorotoluene	ND	100	"	"	"	"	"	"		
4-Chlorotoluene	ND	100	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"		
Dibromochloromethane	ND	100	"	"	"	"	"	"		
1,2-Dibromoethane	ND	100	"	"	"	"	"	"		
Dibromomethane	ND	100	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"		
1,1-Dichloroethane	ND	100	"	"	"	"	"	"		
1,2-Dichloroethane	ND	100	"	"	"	"	"	"		
1,1-Dichloroethene	ND	100	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"		
1,2-Dichloropropane	ND	100	"	"	"	"	"	"		
1,3-Dichloropropane	ND	100	"	"	"	"	"	"		
2,2-Dichloropropane	ND	100	"	"	"	"	"	"		
1,1-Dichloropropene	ND	100	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"		
Ethylbenzene	ND	100	"	"	"	"	"	"		

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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For  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00	<b>I-02</b>	
<b>GP11 (P008088-15) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	93.4 %	70-130							
Surr: 1,2-DCA-d4	92.6 %	70-130							
Surr: Dibromofluoromethane	85.6 %	70-130							
Surr: Toluene-d8	95.5 %	70-130							

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP12 (P008088-16) Soil</b>					Sampled: 08/02/00 Received: 08/03/00				
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00		Received: 08/03/00	
<b>GP12 (P008088-16) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	91.4 %	70-130							
Surr: 1,2-DCA-d4	93.4 %	70-130							
Surr: Dibromofluoromethone	89.5 %	70-130							
Surr: Toluene-d8	93.0 %	70-130							

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP13 (P008088-17) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Lisa Domenighini, Project Manager

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**Environmental Laboratory Network**

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 Tualatin, OR 97062

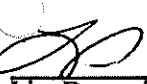
 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00	Received: 08/03/00		
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	105 %	70-130							
Surr: 1,2-DCA-d4	103 %	70-130							
Surr: Dibromofluoromethane	98.2 %	70-130							
Surr: Toluene-d8	107 %	70-130							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Page 28 of 98



Secor  
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 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP14 @ 8' (P008088-19) Soil</b>					Sampled: 08/02/00 Received: 08/03/00				
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Page 29 of 98

Cor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00	Received: 08/03/00		
<b>GP14 @ 8' (P008088-19) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	109 %	70-130							
Surr: 1,2-DCA-d4	97.5 %	70-130							
Surr: Dibromofluoromethane	95.1 %	70-130							
Surr: Toluene-d8	100 %	70-130							

North Creek Analytical - Portland

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Page 30 of 98



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 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B  
 North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP15 (P008088-20) Soil</b>					Sampled: 08/02/00 Received: 08/03/00				
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Decor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00 Received: 08/03/00			
<b>GP15 (P008088-20) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	95.2 %	70-130							
Surr: 1,2-DCA-d4	94.4 %	70-130							
Surr: Dibromofluoromethane	88.4 %	70-130							
Surr: Toluene-d8	91.6 %	70-130							

North Creek Analytical - Portland

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 Lisa Domenighini, Project Manager

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Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP16 (P008088-21) Soil</b>						Sampled: 08/03/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Lisa Domenighini, Project Manager

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Page 33 of 98



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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/03/00		Received: 08/03/00	
<b>GP16 (P008088-21) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	97.4 %	70-130							
Surr: 1,2-DCA-d4	96.5 %	70-130							
Surr: Dibromofluoromethane	92.6 %	70-130							
Surr: Toluene-d8	96.1 %	70-130							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP17 @ 6' (P008088-23) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
Acetone	5130	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
<b>1,2-Dichlorobenzene</b>	<b>50100</b>	500	"	5	"	"	08/18/00	"	1-02
1,3-Dichlorobenzene	ND	100	"	1	"	"	08/15/00	"	
<b>1,4-Dichlorobenzene</b>	<b>1100</b>	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager



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Secor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00	Received: 08/03/00		
<b>GP17 @ 6' (P008088-23) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/15/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	750	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	63.9 %	70-130							S-01
Surr: 1,2-DCA-d4	89.1 %	70-130							
Surr: Dibromofluoromethane	84.2 %	70-130							
Surr: Toluene-d8	88.1 %	70-130							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager



Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP17C @ 11.5' (P008088-25) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
<b>1,2-Dichlorobenzene</b>	<b>382</b>	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

Page 37 of 98



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Secor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00 Received: 08/03/00			
<b>GP17C @ 11.5' (P008088-25) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	81.6 %	70-130							
Surr: 1,2-DCA-d4	90.0 %	70-130							
Surr: Dibromofluoromethane	84.0 %	70-130							
Surr: Toluene-d8	91.2 %	70-130							

North Creek Analytical - Portland

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP18 (P008088-26) Soil</b>						<b>Sampled: 08/03/00 Received: 08/03/00</b>			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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**Environmental Laboratory Network**



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Decor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals

Project Number: 015.08716.001

Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/03/00	Received: 08/03/00		
<b>GP18 (P008088-26) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/16/00	0080135	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	

Surr: 4-BFB	88.7 %	70-130
Surr: 1,2-DCA-d4	92.4 %	70-130
Surr: Dibromofluoromethane	87.0 %	70-130
Surr: Toluene-d8	93.3 %	70-130

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
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Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP19 (P008088-27) Soil</b>						Sampled: 08/03/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/06/00	0080136	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Page 41 of 98



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Color Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/03/00	Received: 08/03/00		
<b>GP19 (P008088-27) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/06/00	0080136	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	90.0 %	70-130							
Surr: 1,2-DCA-d4	90.0 %	70-130							
Surr: Dibromofluoromethane	88.6 %	70-130							
Surr: Toluene-d8	82.1 %	70-130							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP2B (P008088-29) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
Acetone	ND	1000	ug/kg dry	1	EPA 8260B	08/04/00	08/06/00	0080136	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Page 43 of 98



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Decor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals

Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00 Received: 08/03/00			
<b>GP2B (P008088-29) Soil</b>									
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	08/04/00	08/06/00	0080136	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	100 %	70-130							
Surr: 1,2-DCA-d4	89.9 %	70-130							
Surr: Dibromofluoromethane	87.3 %	70-130							
Surr: Toluene-d8	88.2 %	70-130							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network



Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

**Reported:**  
08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP1 (P008088-01) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/16/00	0080345	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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**Environmental Laboratory Network**

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Client: **Accor** Project: **Fort James Specialty Chemicals**  
 P.O. Box 1508 Project Number: **015.08716.001**  
 Tualatin, OR 97062 Project Manager: **Joe Hunt** Reported: **08/24/00 08:39**

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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Sampled: 08/01/00 Received: 08/03/00

GP1 (P008088-01) Soil									
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/16/00	0080345	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	

Surr: 2-Fluorobiphenyl	72.8 %	44-146
Surr: 2-Fluorophenol	77.3 %	42-126
Surr: Nitrobenzene-d5	68.4 %	42-126
Surr: Phenol-d6	84.6 %	42-131
Surr: p-Terphenyl-d14	69.1 %	49-150
Surr: 2,4,6-Tribromophenol	78.6 %	48-119

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 Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00 Received: 08/03/00			
<b>GP3 (P008088-03) Soil</b>									
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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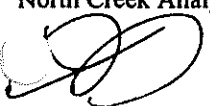
Accor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00		
<b>GP3 (P008088-03) Soil</b>									
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
o-Nitrophenol	ND	0.330	"	"	"	"	"	"	
p-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	68.7 %	44-146							
Surr: 2-Fluorophenol	65.8 %	42-126							
Surr: Nitrobenzene-d5	61.9 %	42-126							
Surr: Phenol-d6	70.7 %	42-131							
Surr: p-Terphenyl-d14	72.1 %	49-150							
Surr: 2,4,6-Tribromophenol	62.4 %	48-119							

North Creek Analytical - Portland

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes	
<b>GP4 (P008088-04) Soil</b>						Sampled: 08/01/00		Received: 08/03/00		<b>R-05</b>
Acenaphthene	ND	1.65	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345		
Acenaphthylene	ND	1.65	"	"	"	"	"	"		
Anthracene	ND	1.65	"	"	"	"	"	"		
Benzo (a) anthracene	ND	1.65	"	"	"	"	"	"		
Benzo (a) pyrene	ND	1.65	"	"	"	"	"	"		
Benzo (b) fluoranthene	ND	1.65	"	"	"	"	"	"		
Benzo (ghi) perylene	ND	1.65	"	"	"	"	"	"		
Benzo (k) fluoranthene	ND	1.65	"	"	"	"	"	"		
Benzoic Acid	ND	5.00	"	"	"	"	"	"		
Benzyl alcohol	ND	1.65	"	"	"	"	"	"		
4-Bromophenyl phenyl ether	ND	1.65	"	"	"	"	"	"		
Butyl benzyl phthalate	ND	1.65	"	"	"	"	"	"		
4-Chloro-3-methylphenol	ND	1.65	"	"	"	"	"	"		
4-Chloroaniline	ND	10.0	"	"	"	"	"	"		
Bis(2-chloroethoxy)methane	ND	1.65	"	"	"	"	"	"		
Bis(2-chloroethyl)ether	ND	1.65	"	"	"	"	"	"		
Bis(2-chloroisopropyl)ether	ND	1.65	"	"	"	"	"	"		
2-Chloronaphthalene	ND	1.65	"	"	"	"	"	"		
2-Chlorophenol	ND	1.65	"	"	"	"	"	"		
4-Chlorophenyl phenyl ether	ND	1.65	"	"	"	"	"	"		
Chrysene	ND	1.65	"	"	"	"	"	"		
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"		
Di-n-octyl phthalate	ND	1.65	"	"	"	"	"	"		
Dibenzo (a,h) anthracene	ND	1.65	"	"	"	"	"	"		
Dibenzofuran	ND	1.65	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"		
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"		
2,4-Dichlorophenol	ND	1.65	"	"	"	"	"	"		
Diethyl phthalate	ND	1.65	"	"	"	"	"	"		
2,4-Dimethylphenol	ND	5.00	"	"	"	"	"	"		
Dimethyl phthalate	ND	1.65	"	"	"	"	"	"		
4,6-Dinitro-2-methylphenol	ND	5.00	"	"	"	"	"	"		
2,4-Dinitrophenol	ND	10.0	"	"	"	"	"	"		
2,4-Dinitrotoluene	ND	2.50	"	"	"	"	"	"		
2,6-Dinitrotoluene	ND	2.50	"	"	"	"	"	"		
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"		
Fluoranthene	ND	1.65	"	"	"	"	"	"		

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Accor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00	R-05	
<b>GP4 (P008088-04) Soil</b>									
Fluorene	ND	1.65	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345	
Hexachlorobenzene	ND	1.65	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.00	"	"	"	"	"	"	
Hexachloroethane	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	1.65	"	"	"	"	"	"	
Isophorone	ND	1.65	"	"	"	"	"	"	
2-Methylnaphthalene	ND	1.65	"	"	"	"	"	"	
2-Methylphenol	ND	1.65	"	"	"	"	"	"	
3-,4-Methylphenol	ND	1.65	"	"	"	"	"	"	
Naphthalene	ND	1.65	"	"	"	"	"	"	
2-Nitroaniline	ND	1.65	"	"	"	"	"	"	
3-Nitroaniline	ND	5.00	"	"	"	"	"	"	
4-Nitroaniline	ND	1.65	"	"	"	"	"	"	
Nitrobenzene	ND	1.65	"	"	"	"	"	"	
2-Nitrophenol	ND	1.65	"	"	"	"	"	"	
4-Nitrophenol	ND	5.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	1.65	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	1.65	"	"	"	"	"	"	
Pentachlorophenol	ND	5.00	"	"	"	"	"	"	
Phenanthrene	ND	1.65	"	"	"	"	"	"	
Phenol	ND	1.65	"	"	"	"	"	"	
Pyrene	ND	1.65	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.65	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	94.6 %	44-146							
Surr: 2-Fluorophenol	82.8 %	42-126							
Surr: Nitrobenzene-d5	81.9 %	42-126							
Surr: Phenol-d6	84.4 %	42-131							
Surr: p-Terphenyl-d14	97.9 %	49-150							
Surr: 2,4,6-Tribromophenol	79.7 %	48-119							

North Creek Analytical - Portland

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North Creek Analytical, Inc.  
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 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00		
<b>GP8 (P008088-10) Soil</b>									
4-Chloro-3-methylphenol	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
<i>Surr: 2-Fluorophenol</i>	67.4 %	42-126							
<i>Surr: Phenol-d6</i>	72.1 %	42-131							
<i>Surr: 2,4,6-Tribromophenol</i>	58.9 %	48-119							

**GP9 @ 12' (P008088-12) Soil**

Sampled: 08/01/00 Received: 08/03/00

Accenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345	
Accenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	

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Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00		
<b>GP9 @ 12' (P008088-12) Soil</b>									
4-Chlorophenyl phenyl ether	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	
Fluorene	ND	0.330	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	

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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00 Received: 08/03/00			
<b>GP9 @ 12' (P008088-12) Soil</b>									
Pentachlorophenol	ND	1.00	mg/kg dry	1	EPA 8270C	08/14/00	08/15/00	0080345	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	63.8 %	44-146							
Surr: 2-Fluorophenol	56.5 %	42-126							
Surr: Nitrobenzene-d5	58.7 %	42-126							
Surr: Phenol-d6	60.1 %	42-131							
Surr: p-Terphenyl-d14	65.0 %	49-150							
Surr: 2,4,6-Tribromophenol	51.1 %	48-119							

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00 Received: 08/03/00			
<b>GP9 @ 27.5' (P008088-13) Soil</b>									
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/16/00	0080345	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
 Environmental Laboratory Network

Page 53 of 98



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Secor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00		
<b>GP9 @ 27.5' (P008088-13) Soil</b>									
Dibenzo (a,h) anthracene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/16/00	0080345	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	
Fluorene	ND	0.330	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP9 @ 27.5' (P008088-13) Soil</b>		Sampled: 08/01/00 Received: 08/03/00							
1,2,4-Trichlorobenzene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/16/00	0080345	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
<i>Surr: 2-Fluorobiphenyl</i>	74.1 %	44-146							
<i>Surr: 2-Fluorophenol</i>	70.0 %	42-126							
<i>Surr: Nitrobenzene-d5</i>	70.1 %	42-126							
<i>Surr: Phenol-d6</i>	75.3 %	42-131							
<i>Surr: p-Terphenyl-d14</i>	62.1 %	49-150							
<i>Surr: 2,4,6-Tribromophenol</i>	65.7 %	48-119							
<b>GP10 (P008088-14) Soil</b>		Sampled: 08/01/00 Received: 08/03/00							
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/14/00	08/16/00	0080345	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager



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Jecor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/01/00	Received: 08/03/00		
<b>GP10 (P008088-14) Soil</b>									
1,4-Dichlorobenzene	ND	1.00	mg/kg dry	1	EPA 8270C	08/14/00	08/16/00	0080345	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	
Fluorene	ND	0.330	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP10 (P008088-14) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
Surr: 2-Fluorobiphenyl	59.6 %	44-146							
Surr: 2-Fluorophenol	56.4 %	42-126							
Surr: Nitrobenzene-d5	48.8 %	42-126							
Surr: Phenol-d6	64.2 %	42-131							
Surr: p-Terphenyl-d14	69.8 %	49-150							
Surr: 2,4,6-Tribromophenol	46.9 %	48-119							S-03
<b>GP11 (P008088-15) Soil</b>						Sampled: 08/01/00 Received: 08/03/00			
4-Chloro-3-methylphenol	ND	0.660	mg/kg dry	2	EPA 8270C	08/14/00	08/17/00	0080345	
2-Chlorophenol	ND	0.660	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.660	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	2.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	4.00	"	"	"	"	"	"	
2-Methylphenol	ND	0.660	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.660	"	"	"	"	"	"	
2-Nitrophenol	ND	0.660	"	"	"	"	"	"	
4-Nitrophenol	ND	2.00	"	"	"	"	"	"	
Pentachlorophenol	ND	2.00	"	"	"	"	"	"	
Phenol	ND	0.660	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.660	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.660	"	"	"	"	"	"	
Surr: 2-Fluorophenol	75.3 %	42-126							
Surr: Phenol-d6	86.3 %	42-131							
Surr: 2,4,6-Tribromophenol	95.2 %	48-119							

North Creek Analytical - Portland

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Address: P.O. Box 1508, Tualatin, OR 97062  
 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt  
 Reported: 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00 Received: 08/03/00			
<b>GP12 (P008088-16) Soil</b>									
4-Chloro-3-methylphenol	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/17/00	0080365	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
<i>r: 2-Fluorophenol</i>	80.0 %	42-126							
<i>r: Phenol-d6</i>	88.7 %	42-131							
<i>Surr: 2,4,6-Tribromophenol</i>	77.3 %	48-119							

						Sampled: 08/02/00 Received: 08/03/00				<b>R-05</b>
<b>GP13 (P008088-17) Soil</b>										
4-Chloro-3-methylphenol	ND	0.660	mg/kg dry	2	EPA 8270C	08/15/00	08/17/00	0080365		
2-Chlorophenol	ND	0.660	"	"	"	"	"	"		
2,4-Dichlorophenol	ND	0.660	"	"	"	"	"	"		
2,4-Dimethylphenol	ND	2.00	"	"	"	"	"	"		
4,6-Dinitro-2-methylphenol	ND	2.00	"	"	"	"	"	"		
2,4-Dinitrophenol	ND	4.00	"	"	"	"	"	"		
2-Methylphenol	ND	0.660	"	"	"	"	"	"		
3-,4-Methylphenol	ND	0.660	"	"	"	"	"	"		
2-Nitrophenol	ND	0.660	"	"	"	"	"	"		
4-Nitrophenol	ND	2.00	"	"	"	"	"	"		
Pentachlorophenol	ND	2.00	"	"	"	"	"	"		
Phenol	ND	0.660	"	"	"	"	"	"		
2,4,5-Trichlorophenol	ND	0.660	"	"	"	"	"	"		
2,4,6-Trichlorophenol	ND	0.660	"	"	"	"	"	"		
<i>Surr: 2-Fluorophenol</i>	82.7 %	42-126								
<i>Surr: Phenol-d6</i>	89.2 %	42-131								
<i>Surr: 2,4,6-Tribromophenol</i>	82.3 %	48-119								

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**GP14 @ 8' (P008088-19) Soil**

Sampled: 08/02/00 Received: 08/03/00

Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorophenol	74.6 %	42-126							
Surr: Phenol-d6	81.3 %	42-131							
Surr: 2,4,6-Tribromophenol	73.6 %	48-119							

**GP15 (P008088-20) Soil**

Sampled: 08/02/00 Received: 08/03/00

Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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 Environmental Laboratory Network

Page 59 of 98



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 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

Client: **Corporation** Project: **Fort James Specialty Chemicals**  
 P.O. Box 1508 Project Number: **015.08716.001** Reported: **08/24/00 08:39**  
 Tualatin, OR 97062 Project Manager: **Joe Hunt**

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00 Received: 08/03/00			
<b>GP15 (P008088-20) Soil</b>									
4-Chloroaniline	ND	2.00	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	
Fluorene	ND	0.330	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager



Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**

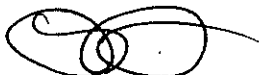
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP15 (P008088-20) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
4-Nitroaniline	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	67.0 %	44-146							
Surr: 2-Fluorophenol	67.4 %	42-126							
Surr: Nitrobenzene-d5	67.0 %	42-126							
Surr: Phenol-d6	74.8 %	42-131							
Surr: p-Terphenyl-d14	64.1 %	49-150							
Surr: 2,4,6-Tribromophenol	61.3 %	48-119							

<b>GP16 (P008088-21) Soil</b>						Sampled: 08/03/00 Received: 08/03/00			
4-Chloro-3-methylphenol	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorophenol	71.3 %	42-126							
Surr: Phenol-d6	77.4 %	42-131							
Surr: 2,4,6-Tribromophenol	73.3 %	48-119							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

Page 61 of 98

For  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Semivolatle Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP17 @ 6' (P008088-23) Soil</b>						Sampled: 08/02/00	Received: 08/03/00		<b>R-05</b>
Acenaphthene	ND	13.2	mg/kg dry	20	EPA 8270C	08/15/00	08/16/00	0080365	
Acenaphthylene	ND	13.2	"	"	"	"	"	"	
Anthracene	ND	13.2	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.2	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.2	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.2	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.2	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.2	"	"	"	"	"	"	
Benzoic Acid	ND	40.0	"	"	"	"	"	"	
Benzyl alcohol	ND	13.2	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	13.2	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	13.2	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	13.2	"	"	"	"	"	"	
4-Chloroaniline	ND	80.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	13.2	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	13.2	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	13.2	"	"	"	"	"	"	
2-Chloronaphthalene	ND	13.2	"	"	"	"	"	"	
2-Chlorophenol	ND	13.2	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	13.2	"	"	"	"	"	"	
Chrysene	ND	13.2	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	40.0	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	13.2	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.2	"	"	"	"	"	"	
Dibenzofuran	ND	13.2	"	"	"	"	"	"	
1,2-Dichlorobenzene	946	200	"	100	"	"	08/17/00	"	
1,3-Dichlorobenzene	ND	40.0	"	20	"	"	08/16/00	"	
1,4-Dichlorobenzene	ND	40.0	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	40.0	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	13.2	"	"	"	"	"	"	
Diethyl phthalate	ND	13.2	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	40.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	13.2	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	40.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	80.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	20.0	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	20.0	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	80.0	"	"	"	"	"	"	

North Creek Analytical - Portland

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 Lisa Domenighini, Project Manager

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 Environmental Laboratory Network

Page 62 of 98

Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP17 @ 6' (P008088-23) Soil</b>						Sampled: 08/02/00		Received: 08/03/00	<b>R-05</b>
Fluoranthene	ND	13.2	mg/kg dry	20	EPA 8270C	08/15/00	08/16/00	0080365	
Fluorene	ND	13.2	"	"	"	"	"	"	
Hexachlorobenzene	ND	13.2	"	"	"	"	"	"	
Hexachlorobutadiene	ND	40.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	40.0	"	"	"	"	"	"	
Hexachloroethane	ND	40.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.2	"	"	"	"	"	"	
Isophorone	ND	13.2	"	"	"	"	"	"	
2-Methylnaphthalene	ND	13.2	"	"	"	"	"	"	
2-Methylphenol	ND	13.2	"	"	"	"	"	"	
3-,4-Methylphenol	ND	13.2	"	"	"	"	"	"	
Naphthalene	ND	13.2	"	"	"	"	"	"	
2-Nitroaniline	ND	13.2	"	"	"	"	"	"	
3-Nitroaniline	ND	40.0	"	"	"	"	"	"	
4-Nitroaniline	ND	13.2	"	"	"	"	"	"	
Nitrobenzene	ND	13.2	"	"	"	"	"	"	
2-Nitrophenol	ND	13.2	"	"	"	"	"	"	
4-Nitrophenol	ND	40.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	13.2	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	13.2	"	"	"	"	"	"	
Pentachlorophenol	ND	40.0	"	"	"	"	"	"	
Phenanthrene	ND	13.2	"	"	"	"	"	"	
Phenol	ND	13.2	"	"	"	"	"	"	
Pyrene	ND	13.2	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	13.2	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	13.2	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	13.2	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	NR	44-146							S-03
Surr: 2-Fluorophenol	77.9 %	42-126							
Surr: Nitrobenzene-d5	NR	42-126							S-01
Surr: Phenol-d6	87.1 %	42-131							
Surr: p-Terphenyl-d14	NR	49-150							S-01
Surr: 2,4,6-Tribromophenol	78.6 %	48-119							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

Accor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00	Received: 08/03/00		
<b>GP17C @ 11.5' (P008088-25) Soil</b>									
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP17C @ 11.5' (P008088-25) Soil</b>					Sampled: 08/02/00 Received: 08/03/00				
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	61.7 %	44-146							
Surr: 2-Fluorophenol	64.9 %	42-126							
Surr: Nitrobenzene-d5	58.1 %	42-126							
Surr: Phenol-d6	70.6 %	42-131							
Surr: p-Terphenyl-d14	57.8 %	49-150							
Surr: 2,4,6-Tribromophenol	58.6 %	48-119							

North Creek Analytical - Portland

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 Environmental Laboratory Network

Page 65 of 98



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 541.383.9310 fax 541.382.7588

Decor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/03/00	Received: 08/03/00		
<b>GP18 (P008088-26) Soil</b>									
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/17/00	0080365	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP18 (P008088-26) Soil</b>						Sampled: 08/03/00 Received: 08/03/00			
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/17/00	0080365	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	78.2 %	44-146							
Surr: 2-Fluorophenol	79.3 %	42-126							
Surr: Nitrobenzene-d5	75.2 %	42-126							
Surr: Phenol-d6	87.1 %	42-131							
Surr: p-Terphenyl-d14	69.8 %	49-150							
Surr: 2,4,6-Tribromophenol	76.6 %	48-119							

North Creek Analytical - Portland

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Page 67 of 98



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Decor  
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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/03/00	Received: 08/03/00	<b>R-05</b>	
<b>GP19 (P008088-27) Soil</b>									
Acenaphthene	ND	1.65	mg/kg dry	5	EPA 8270C	08/15/00	08/17/00	0080365	
Acenaphthylene	ND	1.65	"	"	"	"	"	"	
Anthracene	ND	3.30	"	10	"	"	08/17/00	"	S-01
Benzo (a) anthracene	ND	1.65	"	5	"	"	08/17/00	"	
Benzo (a) pyrene	ND	1.65	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	1.65	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	1.65	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	1.65	"	"	"	"	"	"	
Benzoic Acid	ND	5.00	"	"	"	"	"	"	
Benzyl alcohol	ND	1.65	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.65	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	1.65	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.65	"	"	"	"	"	"	
4-Chloroaniline	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	1.65	"	"	"	"	"	"	
(2-chloroethyl)ether	ND	1.65	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	1.65	"	"	"	"	"	"	
2-Chloronaphthalene	ND	1.65	"	"	"	"	"	"	
2-Chlorophenol	ND	1.65	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	1.65	"	"	"	"	"	"	
Chrysene	ND	1.65	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	1.65	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	1.65	"	"	"	"	"	"	
Dibenzofuran	ND	1.65	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.65	"	"	"	"	"	"	
Diethyl phthalate	ND	1.65	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	5.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	1.65	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	5.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	2.50	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	2.50	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	1.65	"	"	"	"	"	"	

North Creek Analytical - Portland

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Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP19 (P008088-27) Soil</b>						Sampled: 08/03/00		Received: 08/03/00	R-05
Fluorene	ND	1.65	mg/kg dry	5	EPA 8270C	08/15/00	08/17/00	0080365	
Hexachlorobenzene	ND	1.65	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.00	"	"	"	"	"	"	
Hexachloroethane	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	1.65	"	"	"	"	"	"	
Isophorone	ND	1.65	"	"	"	"	"	"	
2-Methylnaphthalene	ND	1.65	"	"	"	"	"	"	
2-Methylphenol	ND	1.65	"	"	"	"	"	"	
3-,4-Methylphenol	ND	1.65	"	"	"	"	"	"	
Naphthalene	ND	1.65	"	"	"	"	"	"	
2-Nitroaniline	ND	1.65	"	"	"	"	"	"	
3-Nitroaniline	ND	5.00	"	"	"	"	"	"	
4-Nitroaniline	ND	1.65	"	"	"	"	"	"	
Nitrobenzene	ND	1.65	"	"	"	"	"	"	
2-Nitrophenol	ND	1.65	"	"	"	"	"	"	
4-Nitrophenol	ND	5.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	1.65	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	1.65	"	"	"	"	"	"	
Pentachlorophenol	ND	5.00	"	"	"	"	"	"	
Phenanthrene	ND	1.65	"	"	"	"	"	"	
Phenol	ND	1.65	"	"	"	"	"	"	
Pyrene	ND	1.65	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.65	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	87.4 %	44-146							
Surr: 2-Fluorophenol	72.4 %	42-126							
Surr: Nitrobenzene-d5	74.5 %	42-126							
Surr: Phenol-d6	76.9 %	42-131							
Surr: p-Terphenyl-d14	69.9 %	49-150							
Surr: 2,4,6-Tribromophenol	75.3 %	48-119							

North Creek Analytical - Portland

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Cor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/02/00 Received: 08/03/00			
<b>GP2B (P008088-29) Soil</b>									
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

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Lisa Domenighini, Project Manager

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP2B (P008088-29) Soil</b>						Sampled: 08/02/00 Received: 08/03/00			
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	08/15/00	08/16/00	0080365	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	71.8 %	44-146							
Surr: 2-Fluorophenol	77.3 %	42-126							
Surr: Nitrobenzene-d5	70.4 %	42-126							
Surr: Phenol-d6	85.2 %	42-131							
Surr: p-Terphenyl-d14	68.3 %	49-150							
Surr: 2,4,6-Tribromophenol	72.6 %	48-119							

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Cor  
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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt


Reported:  
 08/24/00 08:39

**Miscellaneous Physical/Conventional Chemistry Parameters**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP1 (P008088-01) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	83.0	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP3 (P008088-03) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	77.4	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP4 (P008088-04) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	75.6	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP5 (P008088-05) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	87.1	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP6 (P008088-06) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	73.9	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>/C (P008088-09) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	89.8	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP8 (P008088-10) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	75.9	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP9 @ 12' (P008088-12) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	74.8	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP9 @ 27.5' (P008088-13) Soil</b>					Sampled: 08/01/00 Received: 08/03/00				
% Solids	83.0	1.00 % by Weight		1	NCA SOP	08/04/00	08/04/00	0080120	

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P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

**Reported:**  
08/24/00 08:39

**Miscellaneous Physical/Conventional Chemistry Parameters  
North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>GP10 (P008088-14) Soil</b>						Sampled: 08/01/00	Received: 08/03/00		
% Solids	65.6	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP11 (P008088-15) Soil</b>						Sampled: 08/01/00	Received: 08/03/00		
% Solids	82.2	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP12 (P008088-16) Soil</b>						Sampled: 08/02/00	Received: 08/03/00		
% Solids	77.7	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP13 (P008088-17) Soil</b>						Sampled: 08/02/00	Received: 08/03/00		
% Solids	88.5	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP14 @ 8' (P008088-19) Soil</b>						Sampled: 08/02/00	Received: 08/03/00		
% Solids	81.9	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP15 (P008088-20) Soil</b>						Sampled: 08/02/00	Received: 08/03/00		
% Solids	80.2	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP16 (P008088-21) Soil</b>						Sampled: 08/03/00	Received: 08/03/00		
% Solids	87.2	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP17 @ 6' (P008088-23) Soil</b>						Sampled: 08/02/00	Received: 08/03/00		
% Solids	70.3	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
<b>GP17C @ 11.5' (P008088-25) Soil</b>						Sampled: 08/02/00	Received: 08/03/00		
% Solids	79.9	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	

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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Miscellaneous Physical/Conventional Chemistry Parameters**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/03/00		Received: 08/03/00	
<b>GP18 (P008088-26) Soil</b>									
% Solids	84.0	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
						Sampled: 08/03/00		Received: 08/03/00	
<b>GP19 (P008088-27) Soil</b>									
% Solids	87.5	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	
						Sampled: 08/03/00		Received: 08/03/00	
<b>GP20 (P008088-28) Soil</b>									
% Solids	77.5	1.00	% by Weight	1	NCA SOP	08/09/00	08/10/00	0080232	
						Sampled: 08/02/00		Received: 08/03/00	
<b>GP2B (P008088-29) Soil</b>									
% Solids	87.9	1.00	% by Weight	1	NCA SOP	08/04/00	08/04/00	0080120	

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Hydrocarbon Identification per NW-TPH Methodology - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080170 - TPH-HCID Extraction**

<b>Blank (0080170-BLK1)</b>		Prepared: 08/07/00 Analyzed: 08/08/00								
Gasoline Range Hydrocarbons	ND	20.0	mg/kg wet							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
<i>Surr: 1-Chlorooctadecane</i>	<i>DET</i>		"	<i>4.00</i>		<i>121</i>	<i>50-150</i>			
<b>Duplicate (0080170-DUP1)</b>		Source: P008088-01 Prepared: 08/07/00 Analyzed: 08/08/00								
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	ND	100	"		ND				50	
<i>Surr: 1-Chlorooctadecane</i>	<i>DET</i>		"	<i>4.82</i>		<i>114</i>	<i>50-150</i>			
<b>Duplicate (0080170-DUP2)</b>		Source: P008099-01 Prepared: 08/07/00 Analyzed: 08/09/00								
Gasoline Range Hydrocarbons	ND	145	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	DET	362	"		DET			129	50	
Heavy Oil Range Hydrocarbons	DET	723	"		DET			119	50	
<i>Surr: 1-Chlorooctadecane</i>	<i>DET</i>		"	<i>28.9</i>		<i>55.0</i>	<i>50-150</i>			

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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

**Total Metals - EPA 6000/7000 Series Methods - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080175 - EPA 3050**

**Blank (0080175-BLK1)**

Prepared: 08/07/00 Analyzed: 08/14/00

Barium	ND	0.500	mg/kg wet							
Cadmium	ND	0.500	"							
Chromium	ND	0.500	"							
Lead	ND	10.0	"							
Silver	ND	1.00	"							

**LCS (0080175-BS1)**

Prepared: 08/07/00 Analyzed: 08/14/00

Barium	49.1	0.500	mg/kg wet	50.0		98.2	80-120			
Cadmium	18.7	0.500	"	20.0		93.5	80-120			
Chromium	47.9	0.500	"	50.0		95.8	80-120			
Lead	92.5	10.0	"	100		92.5	80-120			
Silver	43.2	1.00	"	50.0		86.4	80-120			

**Duplicate (0080175-DUP1)**

Source: P008088-01

Prepared: 08/07/00 Analyzed: 08/14/00

Barium	153	0.500	mg/kg dry		145			5.37	40	
Cadmium	0.542	0.500	"		0.542			0	40	
Chromium	21.5	0.500	"		20.7			3.79	40	
Lead	ND	10.0	"		ND			10.1	40	
Silver	ND	1.00	"		ND				40	

**Matrix Spike (0080175-MS1)**

Source: P008088-01

Prepared: 08/07/00 Analyzed: 08/14/00

Barium	213	0.500	mg/kg dry	60.3	145	113	75-125			
Cadmium	22.5	0.500	"	24.1	0.542	91.1	75-125			
Chromium	70.5	0.500	"	60.3	20.7	82.6	75-125			
Lead	118	10.0	"	121	ND	91.0	75-125			
Silver	47.4	1.00	"	60.3	ND	78.6	75-125			

**Matrix Spike (0080175-MS2)**

Source: P008088-27

Prepared: 08/07/00 Analyzed: 08/14/00

Barium	160	0.500	mg/kg dry	57.2	99.5	106	75-125			
Cadmium	21.4	0.500	"	22.9	1.54	86.7	75-125			
Chromium	73.7	0.500	"	57.2	23.6	87.6	75-125			
Lead	130	10.0	"	114	29.6	88.1	75-125			
Silver	43.5	1.00	"	57.2	ND	75.5	75-125			

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Total Metals per EPA 6000/7000 Series Methods - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080209 - EPA 3050**

**Blank (0080209-BLK1)** Prepared: 08/08/00 Analyzed: 08/17/00

Arsenic	ND	0.500	mg/kg wet							
Selenium	ND	0.500	"							

**LCS (0080209-BS1)** Prepared: 08/08/00 Analyzed: 08/17/00

Arsenic	10.2	0.500	mg/kg wet	10.0		102	80-120			
Selenium	9.93	0.500	"	10.0		99.3	80-120			

**Duplicate (0080209-DUP1)** Source: P008088-01 Prepared: 08/08/00 Analyzed: 08/17/00

Arsenic	5.54	0.500	mg/kg dry		5.20			6.33	40	
Selenium	0.825	0.500	"		0.988			18.0	40	

**Matrix Spike (0080209-MS1)** Source: P008088-01 Prepared: 08/08/00 Analyzed: 08/17/00

Arsenic	16.3	0.500	mg/kg dry	12.1	5.20	91.7	75-125			
Selenium	14.3	0.500	"	12.1	0.988	110	75-125			

**Matrix Spike (0080209-MS2)** Source: P008088-27 Prepared: 08/08/00 Analyzed: 08/17/00

Arsenic	15.2	0.500	mg/kg dry	11.4	4.41	94.6	75-125			
Selenium	14.1	0.500	"	11.4	0.737	117	75-125			

**Batch 0080296 - EPA 7471**

**Blank (0080296-BLK1)** Prepared & Analyzed: 08/11/00

Mercury	ND	0.100	mg/kg wet							
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**LCS (0080296-BS1)** Prepared & Analyzed: 08/11/00

Mercury	0.988	0.100	mg/kg wet	1.00		98.8	80-120			
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Page 77 of 98



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cor	Project: Fort James Specialty Chemicals	Reported:
P.O. Box 1508	Project Number: 015.08716.001	08/24/00 08:39
Tualatin, OR 97062	Project Manager: Joe Hunt	

**Total Metals per EPA 5000/7000 Series Methods - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080296 - EPA 7471**

<b>Duplicate (0080296-DUP1)</b>		<b>Source: P008088-01</b>		<b>Prepared &amp; Analyzed: 08/11/00</b>						
Mercury	ND	0.100	mg/kg dry		ND				40	
<b>Matrix Spike (0080296-MS1)</b>		<b>Source: P008088-01</b>		<b>Prepared &amp; Analyzed: 08/11/00</b>						
Mercury	1.20	0.100	mg/kg dry	1.21	ND	99.2	75-125			
<b>Matrix Spike (0080296-MS2)</b>		<b>Source: P008088-19</b>		<b>Prepared &amp; Analyzed: 08/11/00</b>						
Mercury	1.19	0.100	mg/kg dry	1.22	ND	97.5	75-125			

**Batch 0080303 - EPA 3050**

<b>Blank (0080303-BLK1)</b>		<b>Prepared: 08/11/00 Analyzed: 08/17/00</b>								
Arsenic	ND	0.500	mg/kg wet							
Selenium	ND	0.500	"							
<b>LCS (0080303-BS1)</b>		<b>Prepared: 08/11/00 Analyzed: 08/17/00</b>								
Arsenic	10.1	0.500	mg/kg wet	10.0		101	80-120			
Selenium	10.1	0.500	"	10.0		101	80-120			
<b>Duplicate (0080303-DUP1)</b>		<b>Source: P008088-05</b>		<b>Prepared: 08/11/00 Analyzed: 08/22/00</b>						
Arsenic	0.855	0.500	mg/kg dry		1.32			42.8	40	Q-06
Selenium	0.884	0.500	"		1.37			43.1	40	Q-06
<b>Matrix Spike (0080303-MS1)</b>		<b>Source: P008088-05</b>		<b>Prepared: 08/11/00 Analyzed: 08/22/00</b>						
Arsenic	11.5	0.500	mg/kg dry	11.5	1.32	88.5	75-125			
Selenium	13.8	0.500	"	11.5	1.37	108	75-125			

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 P.O. Box 1508  
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 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 08/24/00 08:39

**Total Metals per EPA 6000/7000 Series Methods - Quality Control**
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080304 - EPA 3050**
**Blank (0080304-BLK1)**

Prepared: 08/11/00 Analyzed: 08/14/00

Barium	ND	0.500	mg/kg wet							
Cadmium	ND	0.500	"							
Chromium	ND	0.500	"							
Lead	ND	10.0	"							
Silver	ND	1.00	"							

**LCS (0080304-BS1)**

Prepared: 08/11/00 Analyzed: 08/14/00

Barium	49.3	0.500	mg/kg wet	50.0	98.6	80-120				
Cadmium	18.6	0.500	"	20.0	93.0	80-120				
Chromium	46.9	0.500	"	50.0	93.8	80-120				
Lead	92.5	10.0	"	100	92.5	80-120				
Silver	44.1	1.00	"	50.0	88.2	80-120				

**Duplicate (0080304-DUP1)**

Source: P008088-05

Prepared: 08/11/00 Analyzed: 08/14/00

Barium	79.8	0.500	mg/kg dry	91.9	14.1	40				
Cadmium	ND	0.500	"	ND	66.7	40				Q-06
Chromium	4.36	0.500	"	4.54	4.04	40				
Lead	ND	10.0	"	ND	11.3	40				
Silver	ND	1.00	"	ND	15.5	40				

**Matrix Spike (0080304-MS1)**

Source: P008088-05

Prepared: 08/11/00 Analyzed: 08/14/00

Barium	171	0.500	mg/kg dry	57.4	91.9	138	75-125			Q-02
Cadmium	19.5	0.500	"	23.0	ND	83.8	75-125			
Chromium	56.2	0.500	"	57.4	4.54	90.0	75-125			
Lead	107	10.0	"	115	ND	88.5	75-125			
Silver	50.0	1.00	"	57.4	ND	86.4	75-125			

**Matrix Spike (0080304-MS2)**

Source: P008099-05

Prepared: 08/11/00 Analyzed: 08/14/00

Barium	320	0.500	mg/kg dry	64.5	170	NR	75-125			Q-02
Cadmium	24.6	0.500	"	25.8	2.58	85.3	75-125			
Chromium	90.3	0.500	"	64.5	24.0	103	75-125			
Lead	422	10.0	"	129	236	144	75-125			Q-02
Silver	55.6	1.00	"	64.5	7.09	75.2	75-125			

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Page 79 of 98



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Cor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported: 08/24/00 08:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Polychlorinated Biphenyls per EPA Method 8082 - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080178 - EPA 3550**

**Blank (0080178-BLK1)**

Prepared: 08/07/00 Analyzed: 08/10/00

Aroclor 1016	ND	67.0	ug/kg wet							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	33.3		"	33.3		100	63-119			
Surr: Decachlorobiphenyl	30.5		"	33.3		91.6	52-131			

**LCS (0080178-BS1)**

Prepared: 08/07/00 Analyzed: 08/10/00

Aroclor 1016	337	67.0	ug/kg wet	333		101	57-132			
Aroclor 1260	370	67.0	"	333		111	60-136			
Surr: 2,4,5,6-Tetrachloro-m-xylene	30.9		"	33.3		92.8	63-119			
Surr: Decachlorobiphenyl	29.6		"	33.3		88.9	52-131			

**LCS Dup (0080178-BSD1)**

Prepared: 08/07/00 Analyzed: 08/10/00

Aroclor 1016	333	67.0	ug/kg wet	333		100	57-132	1.19	50	
Aroclor 1260	360	67.0	"	333		108	60-136	2.74	50	
Surr: 2,4,5,6-Tetrachloro-m-xylene	29.3		"	33.3		88.0	63-119			
Surr: Decachlorobiphenyl	28.7		"	33.3		86.2	52-131			

**Matrix Spike (0080178-MS1)**


Source: P008088-23

Prepared: 08/07/00 Analyzed: 08/14/00

Aroclor 1016	399	67.0	ug/kg dry	474	ND	84.2	57-132			
Aroclor 1260	390	67.0	"	474	ND	82.3	60-136			
Surr: 2,4,5,6-Tetrachloro-m-xylene	25.4		"	47.4		53.6	63-119			S-07
Surr: Decachlorobiphenyl	33.4		"	47.4		70.5	52-131			

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Polychlorinated Biphenyls per EPA Method 8082 - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080178 - EPA 3550**

Matrix Spike Dup (0080178-MSD1)	Source: P008088-23			Prepared: 08/07/00	Analyzed: 08/14/00				
Aroclor 1016	564	67.0	ug/kg dry	474	ND	119	57-132	34.3	50
Aroclor 1260	484	67.0	"	474	ND	102	60-136	21.5	50
Surr: 2,4,5,6-Tetrachloro-m-xylene	31.1		"	47.4		65.6	63-119		
Surr: Decachlorobiphenyl	39.9		"	47.4		84.2	52-131		

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Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080135 - EPA 5030

Prepared: 08/04/00 Analyzed: 08/13/00

Blank (0080135-BLK1)

Acetone	ND	1000	ug/kg wet
Benzene	ND	100	"
Bromobenzene	ND	100	"
Bromochloromethane	ND	100	"
Bromodichloromethane	ND	100	"
Bromoform	ND	100	"
Bromomethane	ND	500	"
2-Butanone	ND	1000	"
n-Butylbenzene	ND	500	"
sec-Butylbenzene	ND	100	"
tert-Butylbenzene	ND	100	"
Carbon disulfide	ND	1000	"
Carbon tetrachloride	ND	100	"
Chlorobenzene	ND	100	"
Chloroethane	ND	100	"
Chloroform	ND	100	"
Chloromethane	ND	500	"
2-Chlorotoluene	ND	100	"
4-Chlorotoluene	ND	100	"
1,2-Dibromo-3-chloropropane	ND	500	"
Dibromochloromethane	ND	100	"
1,2-Dibromoethane	ND	100	"
Dibromomethane	ND	100	"
1,2-Dichlorobenzene	ND	100	"
1,3-Dichlorobenzene	ND	100	"
1,4-Dichlorobenzene	ND	100	"
Dichlorodifluoromethane	ND	500	"
1,1-Dichloroethane	ND	100	"
1,2-Dichloroethane	ND	100	"
1,1-Dichloroethene	ND	100	"
cis-1,2-Dichloroethene	ND	100	"
trans-1,2-Dichloroethene	ND	100	"
1,2-Dichloropropane	ND	100	"
1,3-Dichloropropane	ND	100	"
2,2-Dichloropropane	ND	100	"
1,1-Dichloropropene	ND	100	"

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Page 82 of 98



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Secor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported:  
 Tualatin, OR 97062 Project Manager: Joe Hunt 08/24/00 08:39

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080135 - EPA 5030

Prepared: 08/04/00 Analyzed: 08/13/00

Blank (0080135-BLK1)

cis-1,3-Dichloropropene	ND	100	ug/kg wet							
trans-1,3-Dichloropropene	ND	100	"							
Ethylbenzene	ND	100	"							
Hexachlorobutadiene	ND	200	"							
2-Hexanone	ND	1000	"							
Isopropylbenzene	ND	200	"							
p-Isopropyltoluene	ND	200	"							
4-Methyl-2-pentanone	ND	500	"							
Methyl tert-butyl ether	ND	100	"							
Methylene chloride	ND	500	"							
Naphthalene	ND	200	"							
n-Propylbenzene	ND	100	"							
Styrene	ND	100	"							
1,1,1,2-Tetrachloroethane	ND	100	"							
1,1,2,2-Tetrachloroethane	ND	100	"							
Tetrachloroethene	ND	100	"							
Toluene	ND	100	"							
1,2,3-Trichlorobenzene	ND	100	"							
1,2,4-Trichlorobenzene	ND	100	"							
1,1,1-Trichloroethane	ND	100	"							
1,1,2-Trichloroethane	ND	100	"							
Trichloroethene	ND	100	"							
Trichlorofluoromethane	ND	100	"							
1,2,3-Trichloropropane	ND	100	"							
1,2,4-Trimethylbenzene	ND	100	"							
1,3,5-Trimethylbenzene	ND	100	"							
Vinyl chloride	ND	100	"							
o-Xylene	ND	100	"							
m,p-Xylene	ND	200	"							
Surr: 4-BFB	2130		"	2000		107	70-130			
Surr: 1,2-DCA-d4	2100		"	2000		105	70-130			
Surr: Dibromofluoromethane	1860		"	2000		93.0	70-130			
Surr: Toluene-d8	1920		"	2000		96.0	70-130			

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Page 83 of 98

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 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
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**Volatile Organic Compounds per EPA Method 8260B - Quality Control**
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080135 - EPA 5030**
**LCS (0080135-BS1)**

Prepared: 08/04/00 Analyzed: 08/13/00

Benzene	2150	100	ug/kg wet	2500		86.0	80-135			
Chlorobenzene	2350	100	"	2500		94.0	80-135			
1,1-Dichloroethene	1700	100	"	2500		68.0	60-150			
Toluene	2180	100	"	2500		87.2	80-130			
Trichloroethene	1980	100	"	2500		79.2	70-135			
Surr: 4-BFB	2050		"	2000		103	70-130			
Surr: 1,2-DCA-d4	2040		"	2000		102	70-130			
Surr: Dibromofluoromethane	1850		"	2000		92.5	70-130			
Surr: Toluene-d8	1880		"	2000		94.0	70-130			

**Matrix Spike (0080135-MS1)**

Source: P008099-01

Prepared: 08/04/00 Analyzed: 08/13/00

Q-02

Benzene	7440	723	ug/kg dry	18100	ND	41.1	60-135			
Chlorobenzene	7400	723	"	18100	ND	40.9	65-125			
1,1-Dichloroethene	5120	723	"	18100	ND	28.3	60-135			
Toluene	7390	723	"	18100	ND	40.3	60-125			
Trichloroethene	6350	723	"	18100	ND	35.1	60-125			
Surr: 4-BFB	6160		"	14500		42.5	70-130			
Surr: 1,2-DCA-d4	8300		"	14500		57.2	70-130			
Surr: Dibromofluoromethane	7120		"	14500		49.1	70-130			
Surr: Toluene-d8	6660		"	14500		45.9	70-130			

**Matrix Spike Dup (0080135-MSD1)**

Source: P008099-01

Prepared: 08/04/00 Analyzed: 08/13/00

Q-02

Benzene	7450	723	ug/kg dry	18100	ND	41.2	60-135	0.134	25	
Chlorobenzene	7510	723	"	18100	ND	41.5	65-125	1.48	25	
1,1-Dichloroethene	5510	723	"	18100	ND	30.4	60-135	7.34	25	
Toluene	7570	723	"	18100	ND	41.3	60-125	2.41	25	
Trichloroethene	6680	723	"	18100	ND	36.9	60-125	5.07	25	
Surr: 4-BFB	6100		"	14500		42.1	70-130			S-02
Surr: 1,2-DCA-d4	7570		"	14500		52.2	70-130			S-02
Surr: Dibromofluoromethane	6500		"	14500		44.8	70-130			S-02
Surr: Toluene-d8	6130		"	14500		42.3	70-130			S-02

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Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Volatile Organic Compounds per EPA Method 8260B - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080136 - EPA 5030

Blank (0080136-BLK1)

Prepared: 08/04/00 Analyzed: 08/06/00

Acetone	ND	1000	ug/kg wet							
Benzene	ND	100	"							
Bromobenzene	ND	100	"							
Bromochloromethane	ND	100	"							
Bromodichloromethane	ND	100	"							
Bromoform	ND	100	"							
Bromomethane	ND	500	"							
2-Butanone	ND	1000	"							
n-Butylbenzene	ND	500	"							
sec-Butylbenzene	ND	100	"							
tert-Butylbenzene	ND	100	"							
Carbon disulfide	ND	1000	"							
Carbon tetrachloride	ND	100	"							
Chlorobenzene	ND	100	"							
Chloroethane	ND	100	"							
Chloroform	ND	100	"							
Chloromethane	ND	500	"							
2-Chlorotoluene	ND	100	"							
4-Chlorotoluene	ND	100	"							
1,2-Dibromo-3-chloropropane	ND	500	"							
Dibromochloromethane	ND	100	"							
1,2-Dibromoethane	ND	100	"							
Dibromomethane	ND	100	"							
1,2-Dichlorobenzene	ND	100	"							
1,3-Dichlorobenzene	ND	100	"							
1,4-Dichlorobenzene	ND	100	"							
Dichlorodifluoromethane	ND	500	"							
1,1-Dichloroethane	ND	100	"							
1,2-Dichloroethane	ND	100	"							
1,1-Dichloroethene	ND	100	"							
cis-1,2-Dichloroethene	ND	100	"							
trans-1,2-Dichloroethene	ND	100	"							
1,2-Dichloropropane	ND	100	"							
1,3-Dichloropropane	ND	100	"							
2,2-Dichloropropane	ND	100	"							
1,1-Dichloropropene	ND	100	"							

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 Project Manager: Joe Hunt

 Reported:  
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## Volatile Organic Compounds per EPA Method 8260B - Quality Control

## North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080136 - EPA 5030


Prepared: 08/04/00 Analyzed: 08/06/00

Blank (0080136-BLK1)

cis-1,3-Dichloropropene	ND	100	ug/kg wet							
trans-1,3-Dichloropropene	ND	100	"							
Ethylbenzene	ND	100	"							
Hexachlorobutadiene	ND	200	"							
2-Hexanone	ND	1000	"							
Isopropylbenzene	ND	200	"							
p-Isopropyltoluene	ND	200	"							
4-Methyl-2-pentanone	ND	500	"							
Methyl tert-butyl ether	ND	100	"							
Methylene chloride	ND	500	"							
Naphthalene	ND	200	"							
n-Propylbenzene	ND	100	"							
Styrene	ND	100	"							
1,2-Tetrachloroethane	ND	100	"							
1,1,2,2-Tetrachloroethane	ND	100	"							
Tetrachloroethene	ND	100	"							
Toluene	ND	100	"							
1,2,3-Trichlorobenzene	ND	100	"							
1,2,4-Trichlorobenzene	ND	100	"							
1,1,1-Trichloroethane	ND	100	"							
1,1,2-Trichloroethane	ND	100	"							
Trichloroethene	ND	100	"							
Trichlorofluoromethane	ND	100	"							
1,2,3-Trichloropropane	ND	100	"							
1,2,4-Trimethylbenzene	ND	100	"							
1,3,5-Trimethylbenzene	ND	100	"							
Vinyl chloride	ND	100	"							
o-Xylene	ND	100	"							
m,p-Xylene	ND	200	"							
Surr: 4-BFB	2180		"	2000		109	70-130			
Surr: 1,2-DCA-d4	1910		"	2000		95.5	70-130			
Surr: Dibromofluoromethane	1830		"	2000		91.5	70-130			
Surr: Toluene-d8	1750		"	2000		87.5	70-130			

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Volatile Organic Compounds per EPA Method 8260B - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080136 - EPA 5030**

**LCS (0080136-BS1)**

Prepared: 08/04/00 Analyzed: 08/06/00

Benzene	2410	100	ug/kg wet	2500		96.4	80-135			
Chlorobenzene	2630	100	"	2500		105	80-135			
1,1-Dichloroethene	2040	100	"	2500		81.6	60-150			
Toluene	2410	100	"	2500		96.4	80-130			
Trichloroethene	2530	100	"	2500		101	70-135			
Surr: 4-BFB	2090		"	2000		105	70-130			
Surr: 1,2-DCA-d4	1960		"	2000		98.0	70-130			
Surr: Dibromofluoromethane	1890		"	2000		94.5	70-130			
Surr: Toluene-d8	1720		"	2000		86.0	70-130			

**Matrix Spike (0080136-MS1)**

Source: P008088-27

Prepared: 08/04/00 Analyzed: 08/06/00

Benzene	2600	100	ug/kg dry	2860	ND	90.9	60-135			
Chlorobenzene	2660	100	"	2860	ND	93.0	65-125			
1,1-Dichloroethene	2090	100	"	2860	ND	73.1	60-135			
Toluene	2560	100	"	2860	ND	89.5	60-125			
Trichloroethene	2660	100	"	2860	ND	93.0	60-125			
Surr: 4-BFB	2110		"	2290		92.1	70-130			
Surr: 1,2-DCA-d4	2050		"	2290		89.5	70-130			
Surr: Dibromofluoromethane	1980		"	2290		86.5	70-130			
Surr: Toluene-d8	1840		"	2290		80.3	70-130			

**Matrix Spike Dup (0080136-MSD1)**

Source: P008088-27

Prepared: 08/04/00 Analyzed: 08/06/00

Benzene	2570	100	ug/kg dry	2860	ND	89.9	60-135	1.16	25	
Chlorobenzene	2640	100	"	2860	ND	92.3	65-125	0.755	25	
1,1-Dichloroethene	2060	100	"	2860	ND	72.0	60-135	1.45	25	
Toluene	2550	100	"	2860	ND	89.2	60-125	0.391	25	
Trichloroethene	2680	100	"	2860	ND	93.7	60-125	0.749	25	
Surr: 4-BFB	2110		"	2290		92.1	70-130			
Surr: 1,2-DCA-d4	2030		"	2290		88.6	70-130			
Surr: Dibromofluoromethane	1950		"	2290		85.2	70-130			
Surr: Toluene-d8	1830		"	2290		79.9	70-130			

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Cor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported:  
 Tualatin, OR 97062 Project Manager: Joe Hunt 08/24/00 08:39

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080345 - EPA 3550

Prepared: 08/14/00 Analyzed: 08/16/00

Blank (0080345-BLK1)

Acenaphthene	ND	0.330	mg/kg wet							
Acenaphthylene	ND	0.330	"							
Anthracene	ND	0.330	"							
Benzo (a) anthracene	ND	0.330	"							
Benzo (a) pyrene	ND	0.330	"							
Benzo (b) fluoranthene	ND	0.330	"							
Benzo (ghi) perylene	ND	0.330	"							
Benzo (k) fluoranthene	ND	0.330	"							
Benzoic Acid	ND	1.00	"							
Benzyl alcohol	ND	0.330	"							
4-Bromophenyl phenyl ether	ND	0.330	"							
Butyl benzyl phthalate	ND	0.330	"							
4-Chloro-3-methylphenol	ND	0.330	"							
4-Chloroaniline	ND	2.00	"							
1,2-Dichloroethoxy)methane	ND	0.330	"							
Bis(2-chloroethyl)ether	ND	0.330	"							
Bis(2-chloroisopropyl)ether	ND	0.330	"							
2-Chloronaphthalene	ND	0.330	"							
2-Chlorophenol	ND	0.330	"							
4-Chlorophenyl phenyl ether	ND	0.330	"							
Chrysene	ND	0.330	"							
Di-n-butyl phthalate	ND	1.00	"							
Di-n-octyl phthalate	ND	0.330	"							
Dibenzo (a,h) anthracene	ND	0.330	"							
Dibenzofuran	ND	0.330	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
3,3'-Dichlorobenzidine	ND	1.00	"							
2,4-Dichlorophenol	ND	0.330	"							
Diethyl phthalate	ND	0.330	"							
2,4-Dimethylphenol	ND	1.00	"							
Dimethyl phthalate	ND	0.330	"							
4,6-Dinitro-2-methylphenol	ND	1.00	"							
2,4-Dinitrophenol	ND	2.00	"							
2,4-Dinitrotoluene	ND	0.500	"							

North Creek Analytical - Portland

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 Environmental Laboratory Network

Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD Limit	Notes
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Batch 0080345 - EPA 3550

Blank (0080345-BLK1)

Prepared: 08/14/00 Analyzed: 08/16/00

2,6-Dinitrotoluene	ND	0.500	mg/kg wet						
Bis(2-ethylhexyl)phthalate	ND	2.00	"						
Fluoranthene	ND	0.330	"						
Fluorene	ND	0.330	"						
Hexachlorobenzene	ND	0.330	"						
Hexachlorobutadiene	ND	1.00	"						
Hexachlorocyclopentadiene	ND	1.00	"						
Hexachloroethane	ND	1.00	"						
Indeno (1,2,3-cd) pyrene	ND	0.330	"						
Isophorone	ND	0.330	"						
2-Methylnaphthalene	ND	0.330	"						
2-Methylphenol	ND	0.330	"						
3-,4-Methylphenol	ND	0.330	"						
Naphthalene	ND	0.330	"						
2-Nitroaniline	ND	0.330	"						
3-Nitroaniline	ND	1.00	"						
4-Nitroaniline	ND	0.330	"						
Nitrobenzene	ND	0.330	"						
2-Nitrophenol	ND	0.330	"						
4-Nitrophenol	ND	1.00	"						
N-Nitrosodi-n-propylamine	ND	0.330	"						
N-Nitrosodiphenylamine	ND	0.330	"						
Pentachlorophenol	ND	1.00	"						
Phenanthrene	ND	0.330	"						
Phenol	ND	0.330	"						
Pyrene	ND	0.330	"						
1,2,4-Trichlorobenzene	ND	0.330	"						
2,4,5-Trichlorophenol	ND	0.330	"						
2,4,6-Trichlorophenol	ND	0.330	"						
Surr: 2-Fluorobiphenyl	1.86		"	2.50		74.4		44-146	
Surr: 2-Fluorophenol	3.80		"	5.00		76.0		42-126	
Surr: Nitrobenzene-d5	1.81		"	2.50		72.4		42-126	
Surr: Phenol-d6	4.17		"	5.00		83.4		42-131	
Surr: p-Terphenyl-d14	1.74		"	2.50		69.6		49-150	
Surr: 2,4,6-Tribromophenol	3.73		"	5.00		74.6		48-119	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Environmental Laboratory Network

Page 89 of 98

Cor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080345 - EPA 3550

LCS (0080345-BS1)

Prepared: 08/14/00 Analyzed: 08/16/00

Acenaphthene	1.79	0.330	mg/kg wet	2.50		71.6	47-145			
4-Chloro-3-methylphenol	3.62	0.330	"	5.00		72.4	22-147			
2-Chlorophenol	3.57	0.330	"	5.00		71.4	23-134			
1,4-Dichlorobenzene	1.77	1.00	"	2.50		70.8	20-124			
2,4-Dinitrotoluene	1.73	0.500	"	2.50		69.2	39-139			
4-Nitrophenol	3.67	1.00	"	5.00		73.4	0-132			
N-Nitrosodi-n-propylamine	1.71	0.330	"	2.50		68.4	0-230			
Pentachlorophenol	2.79	1.00	"	5.00		55.8	14-176			
Phenol	3.47	0.330	"	5.00		69.4	5-112			
Pyrene	1.53	0.330	"	2.50		61.2	52-130			
1,2,4-Trichlorobenzene	1.71	0.330	"	2.50		68.4	44-142			
Surr: 2-Fluorobiphenyl	2.05		"	2.50		82.0	44-146			
Surr: 2-Fluorophenol	3.83		"	5.00		76.6	42-126			
Surr: Nitrobenzene-d5	1.97		"	2.50		78.8	42-126			
Surr: Phenol-d6	4.13		"	5.00		82.6	42-131			
Surr: p-Terphenyl-d14	1.97		"	2.50		78.8	49-150			
Surr: 2,4,6-Tribromophenol	3.37		"	5.00		67.4	48-119			

Matrix Spike (0080345-MS1)

Source: P008088-01

Prepared: 08/14/00 Analyzed: 08/16/00

Acenaphthene	2.19	0.330	mg/kg dry	3.01	ND	72.8	47-145			
4-Chloro-3-methylphenol	4.46	0.330	"	6.03	ND	74.0	22-147			
2-Chlorophenol	4.34	0.330	"	6.03	ND	72.0	23-134			
1,4-Dichlorobenzene	2.00	1.00	"	3.01	ND	66.4	20-124			
2,4-Dinitrotoluene	2.22	0.500	"	3.01	ND	73.8	39-139			
4-Nitrophenol	4.26	1.00	"	6.03	ND	70.6	0-132			
N-Nitrosodi-n-propylamine	2.14	0.330	"	3.01	ND	71.1	0-230			
Pentachlorophenol	3.25	1.00	"	6.03	ND	53.9	14-176			
Phenol	4.32	0.330	"	6.03	ND	71.6	5-112			
Pyrene	1.84	0.330	"	3.01	ND	61.1	52-130			
1,2,4-Trichlorobenzene	2.05	0.330	"	3.01	ND	68.1	44-142			
Surr: 2-Fluorobiphenyl	2.45		"	3.01		81.4	44-146			
Surr: 2-Fluorophenol	4.82		"	6.03		79.9	42-126			
Surr: Nitrobenzene-d5	2.39		"	3.01		79.4	42-126			
Surr: Phenol-d6	5.26		"	6.03		87.2	42-131			
Surr: p-Terphenyl-d14	2.21		"	3.01		73.4	49-150			
Surr: 2,4,6-Tribromophenol	4.90		"	6.03		81.3	48-119			

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Page 90 of 98

Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

**Semivolatile Organic Compounds per EPA Method 8270C - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080345 - EPA 3550**

**Matrix Spike Dup (0080345-MSD1)**

Source: P008088-01

Prepared: 08/14/00

Analyzed: 08/16/00

Acenaphthene	2.07	0.330	mg/kg dry	3.01	ND	68.8	47-145	5.63	60	
4-Chloro-3-methylphenol	4.06	0.330	"	6.03	ND	67.3	22-147	9.39	60	
2-Chlorophenol	3.97	0.330	"	6.03	ND	65.8	23-134	8.90	60	
1,4-Dichlorobenzene	1.92	1.00	"	3.01	ND	63.8	20-124	4.08	60	
2,4-Dinitrotoluene	2.06	0.500	"	3.01	ND	68.4	39-139	7.48	60	
4-Nitrophenol	3.81	1.00	"	6.03	ND	63.2	0-132	11.2	60	
N-Nitrosodi-n-propylamine	2.03	0.330	"	3.01	ND	67.4	0-230	5.28	60	
Pentachlorophenol	3.46	1.00	"	6.03	ND	57.4	14-176	6.26	60	
Phenol	4.00	0.330	"	6.03	ND	66.3	5-112	7.69	60	
Pyrene	1.75	0.330	"	3.01	ND	58.1	52-130	5.01	60	
1,2,4-Trichlorobenzene	1.94	0.330	"	3.01	ND	64.5	44-142	5.51	60	
Surr: 2-Fluorobiphenyl	2.33		"	3.01		77.4	44-146			
Surr: 2-Fluorophenol	4.74		"	6.03		78.6	42-126			
Surr: Nitrobenzene-d5	2.32		"	3.01		77.1	42-126			
Surr: Phenol-d6	5.14		"	6.03		85.2	42-131			
Surr: p-Terphenyl-d14	2.07		"	3.01		68.8	49-150			
Surr: 2,4,6-Tribromophenol	4.66		"	6.03		77.3	48-119			

**Batch 0080365 - EPA 3550**

**Blank (0080365-BLK1)**

Prepared: 08/15/00 Analyzed: 08/16/00

Acenaphthene	ND	0.330	mg/kg wet							
Acenaphthylene	ND	0.330	"							
Anthracene	ND	0.330	"							
Benzo (a) anthracene	ND	0.330	"							
Benzo (a) pyrene	ND	0.330	"							
Benzo (b) fluoranthene	ND	0.330	"							
Benzo (ghi) perylene	ND	0.330	"							
Benzo (k) fluoranthene	ND	0.330	"							
Benzoic Acid	ND	1.00	"							
Benzyl alcohol	ND	0.330	"							
4-Bromophenyl phenyl ether	ND	0.330	"							
Butyl benzyl phthalate	ND	0.330	"							
4-Chloro-3-methylphenol	ND	0.330	"							
4-Chloroaniline	ND	2.00	"							
Bis(2-chloroethoxy)methane	ND	0.330	"							

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Cor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080365 - EPA 3550

Blank (0080365-BLK1)

Prepared: 08/15/00 Analyzed: 08/16/00

Bis(2-chloroethyl)ether	ND	0.330	mg/kg wet							
Bis(2-chloroisopropyl)ether	ND	0.330	"							
2-Chloronaphthalene	ND	0.330	"							
2-Chlorophenol	ND	0.330	"							
4-Chlorophenyl phenyl ether	ND	0.330	"							
Chrysene	ND	0.330	"							
Di-n-butyl phthalate	ND	1.00	"							
Di-n-octyl phthalate	ND	0.330	"							
Dibenzo (a,h) anthracene	ND	0.330	"							
Dibenzofuran	ND	0.330	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
Dichlorobenzidine	ND	1.00	"							
2,4-Dichlorophenol	ND	0.330	"							
Diethyl phthalate	ND	0.330	"							
2,4-Dimethylphenol	ND	1.00	"							
Dimethyl phthalate	ND	0.330	"							
4,6-Dinitro-2-methylphenol	ND	1.00	"							
2,4-Dinitrophenol	ND	2.00	"							
2,4-Dinitrotoluene	ND	0.500	"							
2,6-Dinitrotoluene	ND	0.500	"							
Bis(2-ethylhexyl)phthalate	ND	2.00	"							
Fluoranthene	ND	0.330	"							
Fluorene	ND	0.330	"							
Hexachlorobenzene	ND	0.330	"							
Hexachlorobutadiene	ND	1.00	"							
Hexachlorocyclopentadiene	ND	1.00	"							
Hexachloroethane	ND	1.00	"							
Indeno (1,2,3-cd) pyrene	ND	0.330	"							
Isophorone	ND	0.330	"							
2-Methylnaphthalene	ND	0.330	"							
2-Methylphenol	ND	0.330	"							
3-,4-Methylphenol	ND	0.330	"							
Naphthalene	ND	0.330	"							
2-Nitroaniline	ND	0.330	"							

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Semivolatile Organic Compounds per EPA Method 8270C - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080365 - EPA 3550**

**Blank (0080365-BLK1)**

Prepared: 08/15/00 Analyzed: 08/16/00

3-Nitroaniline	ND	1.00	mg/kg wet							
4-Nitroaniline	ND	0.330	"							
Nitrobenzene	ND	0.330	"							
2-Nitrophenol	ND	0.330	"							
4-Nitrophenol	ND	1.00	"							
N-Nitrosodi-n-propylamine	ND	0.330	"							
N-Nitrosodiphenylamine	ND	0.330	"							
Pentachlorophenol	ND	1.00	"							
Phenanthrene	ND	0.330	"							
Phenol	ND	0.330	"							
Pyrene	ND	0.330	"							
1,2,4-Trichlorobenzene	ND	0.330	"							
2,4,5-Trichlorophenol	ND	0.330	"							
2,4,6-Trichlorophenol	ND	0.330	"							
Surr: 2-Fluorobiphenyl	1.94		"	2.50		77.6	44-146			
Surr: 2-Fluorophenol	3.93		"	5.00		78.6	42-126			
Surr: Nitrobenzene-d5	1.90		"	2.50		76.0	42-126			
Surr: Phenol-d6	4.30		"	5.00		86.0	42-131			
Surr: p-Terphenyl-d14	1.75		"	2.50		70.0	49-150			
Surr: 2,4,6-Tribromophenol	3.60		"	5.00		72.0	48-119			

**LCS (0080365-BS1)**

Prepared: 08/15/00 Analyzed: 08/16/00

Acenaphthene	1.72	0.330	mg/kg wet	2.50		68.8	47-145			
4-Chloro-3-methylphenol	3.43	0.330	"	5.00		68.6	22-147			
2-Chlorophenol	3.47	0.330	"	5.00		69.4	23-134			
1,4-Dichlorobenzene	1.73	1.00	"	2.50		69.2	20-124			
2,4-Dinitrotoluene	1.77	0.500	"	2.50		70.8	39-139			
4-Nitrophenol	3.21	1.00	"	5.00		64.2	0-132			
N-Nitrosodi-n-propylamine	1.73	0.330	"	2.50		69.2	0-230			
Pentachlorophenol	3.19	1.00	"	5.00		63.8	14-176			
Phenol	3.50	0.330	"	5.00		70.0	5-112			
Pyrene	1.40	0.330	"	2.50		56.0	52-130			
1,2,4-Trichlorobenzene	1.67	0.330	"	2.50		66.8	44-142			
Surr: 2-Fluorobiphenyl	1.95		"	2.50		78.0	44-146			
Surr: 2-Fluorophenol	4.02		"	5.00		80.4	42-126			
Surr: Nitrobenzene-d5	1.94		"	2.50		77.6	42-126			

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Page 93 of 98



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Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 08/24/00 08:39

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0080365 - EPA 3550

LCS (0080365-BS1)

Prepared: 08/15/00 Analyzed: 08/16/00

Surr: Phenol-d6	4.33		mg/kg wet	5.00		86.6	42-131			
Surr: p-Terphenyl-d14	1.74		"	2.50		69.6	49-150			
Surr: 2,4,6-Tribromophenol	3.80		"	5.00		76.0	48-119			

Matrix Spike (0080365-MS1)

Source: P008088-19

Prepared: 08/15/00 Analyzed: 08/16/00

Acenaphthene	2.14	0.330	mg/kg dry	3.05	ND	70.2	47-145			
4-Chloro-3-methylphenol	4.23	0.330	"	6.11	ND	69.2	22-147			
2-Chlorophenol	4.20	0.330	"	6.11	ND	68.7	23-134			
1,4-Dichlorobenzene	1.89	1.00	"	3.05	ND	62.0	20-124			
2,4-Dinitrotoluene	2.18	0.500	"	3.05	ND	71.5	39-139			
4-Nitrophenol	3.95	1.00	"	6.11	ND	64.6	0-132			
N-Nitrosodi-n-propylamine	2.09	0.330	"	3.05	ND	68.5	0-230			
Pentachlorophenol	3.99	1.00	"	6.11	ND	65.3	14-176			
Phenol	4.30	0.330	"	6.11	ND	70.4	5-112			
Pyrene	1.75	0.330	"	3.05	ND	57.4	52-130			
1,2,4-Trichlorobenzene	1.96	0.330	"	3.05	ND	64.3	44-142			
Surr: 2-Fluorobiphenyl	2.33		"	3.05		76.4	44-146			
Surr: 2-Fluorophenol	4.84		"	6.11		79.2	42-126			
Surr: Nitrobenzene-d5	2.34		"	3.05		76.7	42-126			
Surr: Phenol-d6	5.29		"	6.11		86.6	42-131			
Surr: p-Terphenyl-d14	2.12		"	3.05		69.5	49-150			
Surr: 2,4,6-Tribromophenol	4.52		"	6.11		74.0	48-119			

Matrix Spike Dup (0080365-MSD1)


Source: P008088-19

Prepared: 08/15/00 Analyzed: 08/16/00

Acenaphthene	2.06	0.330	mg/kg dry	3.05	ND	67.5	47-145	3.81	60	
4-Chloro-3-methylphenol	4.07	0.330	"	6.11	ND	66.6	22-147	3.86	60	
2-Chlorophenol	4.11	0.330	"	6.11	ND	67.3	23-134	2.17	60	
1,4-Dichlorobenzene	1.81	1.00	"	3.05	ND	59.3	20-124	4.32	60	
2,4-Dinitrotoluene	2.06	0.500	"	3.05	ND	67.5	39-139	5.66	60	
4-Nitrophenol	3.67	1.00	"	6.11	ND	60.1	0-132	7.35	60	
N-Nitrosodi-n-propylamine	1.99	0.330	"	3.05	ND	65.2	0-230	4.90	60	
Pentachlorophenol	3.42	1.00	"	6.11	ND	56.0	14-176	15.4	60	
Phenol	4.04	0.330	"	6.11	ND	66.1	5-112	6.24	60	
Pyrene	1.68	0.330	"	3.05	ND	55.1	52-130	4.08	60	
1,2,4-Trichlorobenzene	1.85	0.330	"	3.05	ND	60.7	44-142	5.77	60	
Surr: 2-Fluorobiphenyl	2.27		"	3.05		74.4	44-146			

North Creek Analytical - Portland

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.

  
 Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Page 94 of 98

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Semivolatile Organic Compounds per EPA Method 8270C - Quality Control**

**North Creek Analytical - Portland**


Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080365 - EPA 3550**

Matrix Spike Dup (0080365-MSD1)	Source: P008088-19	Prepared: 08/15/00	Analyzed: 08/16/00		
Surr: 2-Fluorophenol	4.68	mg/kg dry	6.11	76.6	42-126
Surr: Nitrobenzene-d5	2.26	"	3.05	74.1	42-126
Surr: Phenol-d6	5.01	"	6.11	82.0	42-131
Surr: p-Terphenyl-d14	2.10	"	3.05	68.9	49-150
Surr: 2,4,6-Tribromophenol	4.52	"	6.11	74.0	48-119

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
Environmental Laboratory Network



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 Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

Cor	Project: Fort James Specialty Chemicals	Reported:
P.O. Box 1508	Project Number: 015.08716.001	08/24/00 08:39
Tualatin, OR 97062	Project Manager: Joe Hunt	

Miscellaneous Physical/Conventional Chemistry Parameters - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0080120 - Dry Weight</b>										
<b>Blank (0080120-BLK1)</b> Prepared & Analyzed: 08/04/00										
% Solids	ND	5.00 %	by Weight							
<b>Blank (0080120-BLK2)</b> Prepared & Analyzed: 08/04/00										
% Solids	ND	5.00 %	by Weight							
<b>Blank (0080120-BLK3)</b> Prepared & Analyzed: 08/04/00										
% Solids	ND	5.00 %	by Weight							
<b>LCS (0080120-BS1)</b> Prepared & Analyzed: 08/04/00										
% Solids	100	5.00 %	by Weight				95-105			
<b>LCS (0080120-BS2)</b> Prepared & Analyzed: 08/04/00										
% Solids	100	5.00 %	by Weight				95-105			
<b>LCS (0080120-BS3)</b> Prepared & Analyzed: 08/04/00										
% Solids	100	5.00 %	by Weight				95-105			
<b>Batch 0080232 - Dry Weight</b>										
<b>Blank (0080232-BLK1)</b> Prepared & Analyzed: 08/09/00										
% Solids	ND	5.00 %	by Weight							
<b>Blank (0080232-BLK2)</b> Prepared & Analyzed: 08/09/00										
% Solids	ND	5.00 %	by Weight							
<b>LCS (0080232-BS1)</b> Prepared & Analyzed: 08/09/00										
% Solids	100	5.00 %	by Weight				95-105			

North Creek Analytical - Portland *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.*

  
 Lisa Domenighini, Project Manager



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 541.383.9310 fax 541.382.7588

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 08/24/00 08:39
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**Miscellaneous Physical/Conventional Chemistry Parameters - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0080232 - Dry Weight**

**LCS (0080232-BS2)**

Prepared & Analyzed: 08/09/00

% Solids	100	5.00 % by Weight					95-105			
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North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

Page 97 of 98

For  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
08/24/00 08:39

### Notes and Definitions

- I-02 This sample was analyzed outside of the EPA recommended holding time.
- Q-02 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
- Q-06 Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
- Q-14 The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
- R-05 Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
- S-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
- S-03 Surrogate recovery is outside of NCA established control limits.
- S-07 Surrogate recovery is out of control limits. QA criteria are met when one surrogate is within control limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- wet Sample results reported on a wet weight basis
- RPD Relative Percent Difference

North Creek Analytical - Portland

*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.*



Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
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Page 98 of 98



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 (509) 924-9200 FAX 924-9290  
 (503) 906-9200 FAX 906-9210

# CHAIN OF CUSTODY REPORT

Work Order # **P.008088**

REPORT TO: **SECOR**  
 ATTENTION: **Joe Hunt**  
 ADDRESS: **7730 SW. Mohawk St.**  
**Tualatin, Oregon 97062**  
 PHONE: **503-691-2030** FAX: **503-692-7074**  
 PROJECT NAME: **Fort James Specialty Chemicals**  
 PROJECT NUMBER: **015.08716.001**  
 SAMPLED BY: **DEC**

INVOICE TO: **015**  
 ATTENTION: **015**  
 ADDRESS: **WTPH-HCID + QUANT. HClD**  
 P.O. NUMBER: **EPA 8260B**  
 Analysis Request: **EPA 8270 SIM**  
 NCA QUOTE # **EPA 8082**

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	EPA 8260B	EPA 8270 SIM	WTPH-HCID + QUANT. HClD	EPA 8082
GP1	8/100 0809		X	X	X	X
GP2	0835		X	X	X	X
GP3	0900		X	X	X	X
GP4	0945		X	X	X	X
GP5	1022		X	X	X	X
GP6	1318		X	X	X	X
GP7	1041		X	X	X	X
GP7B	1347		X	X	X	X
GP7C	1403		X	X	X	X
GR8	1150		X			

OTHER: **Specify:**  
 \* Turnaround Requests less than standard may incur Rush Charges.

MATRIX (W. S. A. O)	# OF CONTAINERS	COMMENT
S	3	EPA 8270 SIM (ACID + SAFE/NEUTRAL)
	3	ANIONIC
	3	"
	3	"
	1	
	1	
	1	ANIONIC
	1	ANIONIC
	1	
	1	EPA 8270 SIM (PHENOLS ONLY)

TURNAROUND REQUEST IN BUSINESS DAYS:  
 Organic & Inorganic Analyses: 10, 7, 5, 4, 3, 2, 1  
 Fuels & Hydrocarbon Analyses: 5, 3-4, 2, 1

RECEIVED BY: **D. Edward Caffery** DATE: **8/3/00**  
 PRINT NAME: **D. Edward Caffery** FIRM: **SECOR**  
 RECEIVED BY: **Bob Fahsholz** DATE: **8/3/00**  
 PRINT NAME: **Bob Fahsholz** FIRM: **NCA**

ADDITIONAL REMARKS:









August 23, 2000

Service Request No. J2002672

Joe Hunt  
SECOR  
7730 SW Mohawk St.  
Tualatin, OR 97062

Certification Numbers:  
Florida DOH: E82502  
Louisiana: AI 30759  
Massachusetts: M-FL937  
New Hampshire: 294297-A  
North Carolina: 527  
South Carolina: 96021001

RE: Project No.: 015.08716 Task # 003  
Project Name: Fort James

Dear Joe Hunt:

Enclosed are the results of the samples(s) submitted to our laboratory on August 11, 2000. For your reference, these analyses have been assigned our service request number: J2002672.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in the entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers  
Project Manager

CM/jg

Analytical Report

**Client:** SECOR  
**Project:** Fort James / 015.08716 Task # 003  
**Sample Matrix:** Soil

**Service Request:** J2002672  
**Date Collected:** 8/2/00  
**Date Received:** 8/11/00  
**Date Extracted:** 8/15/00  
**Date Analyzed:** 8/19/00

Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds  
EPA Method 8260B  
Units: µg/Kg (ppb)  
Dry Weight Basis

**Sample Name:** GP17 @ 6'  
**Lab Code:** J2002672-004

CAS Number	TIC	Retention Time (minutes)	Estimated Concentration
274-09-9	1,3-Benzodioxole	28.82	31000

Approved By: Craig R. Hyman Date: 8/23/00

Analytical Report

Client: SECOR  
Project: Fort James / 015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: 8/1/00  
Date Received: 8/11/00  
Date Extracted: 8/11/00  
Date Analyzed: 8/15/00

Tentatively Identified Compounds (TIC)  
Base Neutral/Acid Semivolatile Organic Compounds  
EPA Methods 3550/8270  
Units:  $\mu\text{g/Kg}$  (ppb)  
Dry Weight Basis

Sample Name: GP11  
Lab Code: J2002672-001

CAS Number	TIC	Retention Time	Estimated Concentration
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NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: \_\_\_\_\_

*Craig R. Meyer*

Date: \_\_\_\_\_

*8/23/00*

Analytical Report

Client: SECOR  
Project: Fort James / 015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: 8/1/00  
Date Received: 8/11/00  
Date Extracted: 8/11/00  
Date Analyzed: 8/15/00

Tentatively Identified Compounds (TIC)  
Base Neutral/Acid Semivolatile Organic Compounds  
EPA Methods 3550/8270  
Units:  $\mu\text{g/Kg}$  (ppb)  
Dry Weight Basis

Sample Name: GP12  
Lab Code: J2002672-002

CAS Number	TIC	Retention Time	Estimated Concentration
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NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: Craig R. Myers Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: SECOR  
Project: Fort James / 015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: 8/1/00  
Date Received: 8/11/00  
Date Extracted: 8/11/00  
Date Analyzed: 8/15/00

Tentatively Identified Compounds (TIC)  
Base Neutral/Acid Semivolatile Organic Compounds  
EPA Methods 3550/8270  
Units:  $\mu\text{g/Kg}$  (ppb)  
Dry Weight Basis

Sample Name: GP13  
Lab Code: J2002672-003

CAS Number	TIC	Retention Time	Estimated Concentration
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NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: Craig R. Meyer Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: SECOR  
Project: Fort James / 015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: 8/1/00  
Date Received: 8/11/00  
Date Extracted: 8/11/00  
Date Analyzed: 8/15/00

Tentatively Identified Compounds (TIC)  
Base Neutral/Acid Semivolatile Organic Compounds  
EPA Methods 3550/8270  
Units:  $\mu\text{g/Kg}$  (ppb)  
Dry Weight Basis

Sample Name: Method Blank  
Lab Code: EX200287-MB

CAS Number	TIC	Retention Time	Estimated Concentration
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NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: Craig R. Myers Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: SECOR  
Project: Fort James/015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: 8/1-2/00  
Date Received: 8/11/00 1000  
Date Extracted: NA

Inorganic Parameters

Sample Name: GP11 GP12 GP13  
Lab Code: J2002672-001 J2002672-002 J2002672-003

Analyte	Units	EPA Method	MRL	Date/Time Analyzed			
Solids, Total	%	160.3	10	8/14/00 1200	82.2	80.9	92.0

Approved By: Craig R. Myers Date: 8/23/00



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: SECOR  
Project: Fort James/015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: 8/1-2/00  
Date Received: 8/11/00 1000  
Date Extracted: NA

Inorganic Parameters

Sample Name: GP17 @ 6'  
Lab Code: J2002672-004

Analyte	Units	EPA Method	MRL	Date/Time Analyzed	
Solids, Total	%	160.3	10	8/14/00 1200	80.0

Approved By: Craig R. Hyslop Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: SECOR  
Project: Fort James / 015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: NA  
Date Received: NA  
Date Extracted: NA  
Date Analyzed: 8/18-19/00

Surrogate Recovery Summary  
Volatile Organic Compounds  
EPA Method 8260B

Sample Name	Lab Code	P e r c e n t R e c o v e r y		
		Dibromofluoromethane	Toluene- <i>d</i> <sub>8</sub>	4-Bromofluorobenzene
GP17 @ 6'	J2002672-004	104	97	101
Method Blank	J200818-MB	96	99	98
Laboratory Control Sample	J200818-LCS	109	96	100
Batch QC	J2002686-001MS	109	96	97
Batch QC	J2002686-001MSD	107	96	98

CAS Acceptance Limits: 82-119                      86-121                      74-130

Approved By: \_\_\_\_\_

*Craig R. Myers*

Date: \_\_\_\_\_

*8/23/00*

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** SECOR  
**Project:** Fort James / 015.08716 Task # 003  
**Sample Matrix:** Water

**Service Request:** J2002672  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** NA  
**Date Analyzed:** 8/18/00

Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds  
 EPA Method 8260B  
 Units: µg/L (ppb)

**Sample Name:** Batch QC  
**Lab Code:** Batch QC

Analyte	Spike Level		Sample Result	Spike Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference	CAS Acceptance Limits
	MS	DMS		MS	DMS	MS	DMS			
	1,1-Dichloroethene	20		20	U	19	18			
Benzene	20	20	U	22	20	110	100	62-127	10	30
Trichloroethene	20	20	U	19	18	95	90	60-135	5	30
Toluene	20	20	U	20	20	100	100	64-138	<1	30
Chlorobenzene	20	20	U	19	18	95	90	61-135	5	30

Approved By: Craig R. Meyer Date: 8/23/00

QA/QC Report

Client: SECOR  
 Project: Fort James / 015.08716 Task # 003  
 LCS Matrix: Water

Service Request: J2002672  
 Date Collected: NA  
 Date Received: NA  
 Date Extracted: NA  
 Date Analyzed: 8/18/00

Laboratory Control Sample Summary  
 Volatile Organic Compounds  
 EPA Method 8260B  
 Units: µg/L (ppb)

Analyte	True Value	Result	Percent Recovery	EPA Percent Recovery Acceptance Limits
1,1-Dichloroethene	20	17	85	61-129
Benzene	20	20	100	63-130
Trichloroethene	20	19	95	72-127
Toluene	20	19	95	70-133
Chlorobenzene	20	18	90	66-132

Approved By: \_\_\_\_\_

*Craig R. Myers*

Date: \_\_\_\_\_

8/23/00



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** SECOR  
**Project:** Fort James / 015.08716 Task # 003  
**Sample Matrix:** Soil

**Service Request:** J2002672  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** 8/11/00  
**Date Analyzed:** 8/15/00

Matrix Spike/Duplicate Matrix Spike Summary  
 Base Neutral/ Acid Semivolatile Organic Compounds  
 EPA Methods 3550/8270  
 Units: µg/Kg (ppb)

**Sample Name:** Batch QC  
**Lab Code:** Batch QC

Analyte	Spike Level		Sample Result	Spike Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference
	MS	DMS		MS	DMS	MS	DMS		
	Phenol	3300		3300	U	2600	2500		
2-Chlorophenol	3300	3300	U	2500	2400	76	73	47-113	4
1,4-Dichlorobenzene	1650	1650	U	920	1000	56	61	50-120	8
N-Nitroso-di-n-propylamine	1650	1650	U	1400	1400	85	85	51-121	<1
1,2,4-Trichlorobenzene	1650	1650	U	890	1100	54	67	53-121	21
4-Chloro-3-methylphenol	3300	3300	U	2700	2700	82	82	47-128	<1
Acenaphthene	1650	1650	U	990	1300	60	79	50-121	27
4-Nitrophenol	3300	3300	U	2900	2800	88	85	36-135	4
2,4-Dinitrotoluene	1650	1650	U	1200	1400	73	85	51-125	15
Pentachlorophenol	3300	3300	U	1200	1300	36	39	17-151	8
Pyrene	1650	1650	U	960	1300	58	79	51-115	30

U Not detected at or above the MRL.

Approved By: Craig R. Meyer Date: 8/23/00

**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** SECOR  
**Project:** Fort James / 015.08716 Task # 003  
**LCS Matrix:** Soil

**Service Request:** J2002672  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** 8/11/00  
**Date Analyzed:** 8/15/00

Laboratory Control Sample Summary  
 Base Neutral/ Acid Semivolatile Organic Compounds  
 EPA Methods 3550/8270  
 Units: µg/Kg (ppb)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Phenol	3300	3000	91	40-116
2-Chlorophenol	3300	2900	88	47-113
1,4-Dichlorobenzene	1650	1500	91	50-120
N-Nitroso-di-n-propylamine	1650	1700	103	51-121
1,2,4-Trichlorobenzene	1650	1500	91	53-121
4-Chloro-3-methylphenol	3300	3200	97	47-128
Acenaphthene	1650	1600	97	50-121
4-Nitrophenol	3300	2700	82	36-135
2,4-Dinitrotoluene	1650	1600	97	51-125
Pentachlorophenol	3300	76	2 (a)	17-151
Pyrene	1650	1600	97	51-115

(a) Outside of acceptance limits. Since the reduced percent recovery is for a non-target analyte and since the percent recovery for the associated MS/MSD is acceptable, it is the opinion of CAS that the quality of the sample data has not been significantly affected.

Approved By: Craig R. Meyers Date: 8/23/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: SECOR  
Project: Fort James/015.08716 Task # 003  
Sample Matrix: Soil

Service Request: J2002672  
Date Collected: NA  
Date Received: NA  
Date Extracted: NA  
Date Analyzed: 8/14/00 1200

Duplicate Summary  
Inorganic Parameters

Sample Name: Batch QC  
Lab Code: Batch QC

Analyte	Units	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Solids, Total	%	160.3	10	89.8	91.6	90.7	1.98

Approved By: \_\_\_\_\_

*Craig R. Myers*

Date: \_\_\_\_\_

8/23/00









September 08, 2000

Service Request No. J2002890

Joe Hunt  
Secor  
7730 SW Mohawk St.  
Tualatin, OR 97062

Certification Numbers:

Florida DOH: E82502  
Louisiana: AI 30759  
Massachusetts: M-FL937  
New Hampshire: 294297-A  
North Carolina: 527  
South Carolina: 9602100I

RE: Project No.: 015.08716  
Project Name: Fort James

Dear Joe Hunt:

Enclosed are the results of the samples(s) submitted to our laboratory on August 29, 2000. For your reference, these analyses have been assigned our service request number: J2002890.

All analyses were performed according to our laboratory's quality assurance program. All results are intended to be considered in the entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the samples analyzed.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

Craig Myers  
Project Manager

CM/jg

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Secor  
Project: Fort James / 015.08716  
Sample Matrix: Water

Service Request: J2002890  
Date Collected: 8/25/00  
Date Received: 8/29/00  
Date Extracted: NA  
Date Analyzed: 9/5/00

Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds  
EPA Method 8260B  
Units: µg/L (ppb)

Sample Name: MW2-082500  
Lab Code: J2002890-002

CAS Number	TIC	Retention Time	Estimated Concentration
------------	-----	----------------	-------------------------

NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: \_\_\_\_\_

*Craig R. Meyer*

Date: \_\_\_\_\_

9/8/00

Analytical Report

Client: Secor  
Project: Fort James / 015.08716  
Sample Matrix: Water

Service Request: J2002890  
Date Collected: 8/25/00  
Date Received: 8/29/00  
Date Extracted: NA  
Date Analyzed: 9/5/00

Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds  
EPA Method 8260B  
Units: µg/L (ppb)

Sample Name: MW3-082500  
Lab Code: J2002890-003

CAS Number	TIC	Retention Time	Estimated Concentration
------------	-----	----------------	-------------------------

NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: Craig R. Meyer Date: 9/8/00

Analytical Report

Client: Secor  
Project: Fort James / 015.08716  
Sample Matrix: Water

Service Request: J2002890  
Date Collected: 8/25/00  
Date Received: 8/29/00  
Date Extracted: 8/31/00  
Date Analyzed: 9/6/00

Tentatively Identified Compounds (TIC)  
Base Neutral/Acid Semivolatile Organic Compounds  
EPA Methods 3510/8270  
Units: µg/L (ppb)

Sample Name: MW1-082500  
Lab Code: J2002890-001

CAS Number	TIC	Retention Time	Estimated Concentration
------------	-----	----------------	-------------------------

NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: \_\_\_\_\_

*Craig R. Myers*

Date: \_\_\_\_\_

*9/8/00*

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Secor  
Project: Fort James / 015.08716  
Sample Matrix: Water

Service Request: J2002890  
Date Collected: 8/25/00  
Date Received: 8/29/00  
Date Extracted: 8/31/00  
Date Analyzed: 9/6/00

Tentatively Identified Compounds (TIC)  
Base Neutral/Acid Semivolatile Organic Compounds  
EPA Methods 3510/8270  
Units: µg/L (ppb)

Sample Name: MW2-082500  
Lab Code: J2002890-002

CAS Number	TIC	Retention Time	Estimated Concentration
------------	-----	----------------	-------------------------

NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: \_\_\_\_\_

*Craig R. Meyer*

Date: \_\_\_\_\_

*9/8/00*

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Secor  
Project: Fort James / 015.08716  
Sample Matrix: Water

Service Request: J2002890  
Date Collected: 8/25/00  
Date Received: 8/29/00  
Date Extracted: 8/31/00  
Date Analyzed: 9/6/00

Tentatively Identified Compounds (TIC)  
Base Neutral/Acid Semivolatile Organic Compounds  
EPA Methods 3510/8270  
Units: µg/L (ppb)

Sample Name: MW3-082500  
Lab Code: J2002890-003

CAS Number	TIC	Retention Time	Estimated Concentration
------------	-----	----------------	-------------------------

NO TENTATIVELY IDENTIFIED COMPOUNDS DETECTED

Approved By: \_\_\_\_\_

*Chris P. Meyer*

Date: \_\_\_\_\_

*9/8/00*



COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Secor  
Project: Fort James / 015.08716  
Sample Matrix: Water

Service Request: J2002890  
Date Collected: NA  
Date Received: NA  
Date Extracted: NA  
Date Analyzed: 9/5/00

Surrogate Recovery Summary  
Volatile Organic Compounds  
EPA Method 8260B

Sample Name	Lab Code	P e r c e n t R e c o v e r y		
		Dibromofluoromethane	Toluene- <i>d</i> <sub>8</sub>	4-Bromofluorobenzene
MW2-082500	J2002890-002	90	100	109
MW3-082500	J2002890-003	93	103	109
Method Blank	J200905-MB	94	102	113
Laboratory Control Sample	J200905-LCS	92	99	106
Batch QC	J2002926-001MS	94	99	107
Batch QC	J2002926-001MSD	91	97	105

CAS Acceptance Limits: 82-119                      86-121                      74-130

Approved By: Craig P. Meyer Date: 9/8/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Secor  
 Project: Fort James / 015.08716  
 Sample Matrix: Water

Service Request: J2002890  
 Date Collected: NA  
 Date Received: NA  
 Date Extracted: NA  
 Date Analyzed: 9/5/00

Matrix Spike/Duplicate Matrix Spike Summary  
 Volatile Organic Compounds  
 EPA Method 8260B  
 Units: µg/L (ppb)

Sample Name: Batch QC  
 Lab Code: Batch QC

Analyte	Spike Level		Sample Result	Spike Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference	CAS Acceptance Limits
	MS	DMS		MS	DMS	MS	DMS			
1,1-Dichloroethene	200	200	U	188	192	94	96	59-127	2	30
Benzene	200	200	U	218	221	109	111	62-127	1	30
Trichloroethene	200	200	U	214	219	107	110	60-135	2	30
Toluene	200	200	U	218	222	109	111	64-138	2	30
Chlorobenzene	200	200	U	208	210	104	105	61-135	1	30

Approved By: Craig R. Meyer Date: 9/8/00

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Secor  
Project: Fort James / 015.08716  
LCS Matrix: Water

Service Request: J2002890  
Date Collected: NA  
Date Received: NA  
Date Extracted: NA  
Date Analyzed: 9/5/00

Laboratory Control Sample Summary  
Volatile Organic Compounds  
EPA Method 8260B  
Units: µg/L (ppb)

Analyte	True Value	Result	Percent Recovery	EPA Percent Recovery Acceptance Limits
1,1-Dichloroethene	20	19	95	61-129
Benzene	20	22	110	63-130
Trichloroethene	20	22	110	72-127
Toluene	20	22	110	70-133
Chlorobenzene	20	22	110	66-132

Approved By: Craig R. Hym Date: 9/8/00



**COLUMBIA ANALYTICAL SERVICES, INC.**

QA/QC Report

**Client:** Secor  
**Project:** Fort James / 015.08716  
**Sample Matrix:** Water

**Service Request:** J2002890  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** 8/31/00  
**Date Analyzed:** 9/6/00

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary  
 Base Neutral/ Acid Semivolatile Organic Compounds  
 EPA Methods 3510/8270  
 Units: µg/L (ppb)

Analyte	Spike Level		Spike Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference
	LCS	DLCS	LCS	DLCS	LCS	DLCS		
	Phenol	100	100	38	32	38		
2-Chlorophenol	100	100	78	58	78	58	46-106	29
1,4-Dichlorobenzene	50	50	42	41	84	82	51-107	2
N-Nitroso-di-n-propylamine	50	50	47	46	94	92	50-130	2
1,2,4-Trichlorobenzene	50	50	44	41	88	82	54-108	7
4-Chloro-3-methylphenol	100	100	88	82	88	82	46-119	7
Acenaphthene	50	50	46	43	92	86	53-111	7
4-Nitrophenol	100	100	28	17	28	17	11-81	49
2,4-Dinitrotoluene	50	50	43	40	86	80	53-120	7
Pentachlorophenol	100	100	58	35	58	35	22-133	49
Pyrene	50	50	51	49	102	98	56-115	4

U Not detected at or above the MRL.

Approved By: Craig R. Myers Date: 9/8/00

Figure 8-1  
 Cooler Receipt and Preservation Form

Project/Client Fort James / SECOR Service Request Number 12002890

Cooler received on 8/29/00 by: RJG COURIER: CAS  UPS  FEDEX  CD&L  CLIENT

1. Were custody seals on outside of cooler?  YES  NO
  2. Were custody papers properly filled out (ink, signed, etc.)?  YES  NO
  3. Did all bottles arrive in good condition (unbroken)?  YES  NO
  4. Did any VOA vials contain significant air bubbles?  YES  NO  NA
  5. Were Ice or Ice packs present?  YES  NO
  6. Where did the bottles originate? CAS/IAX,  CLIENT
  7. Temperature of cooler(s) upon receipt: 5.6°C
- Is the temperature within 0° - 6° C?:  Yes?  Yes?  Yes?  Yes?  Yes?  
 No?  No?  No?  No?  No?
- If No, Explain Below

Date/Time Temperatures Taken: 8/29/00 @ 1005  
 Thermometer ID: \_\_\_\_\_ Temp Blank \_\_\_\_\_ Sample Bottle \_\_\_\_\_ Cooler Temp.  IR Gun

If out of Temperature, Client Approval to Run Samples \_\_\_\_\_

- Cooler Breakdown: Date: 8/29/00 by: RJG
1. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  YES  NO
  2. Did all bottle labels and tags agree with custody papers?  YES  NO
  3. Were correct containers used for the tests indicated?  YES  NO
  4. Air samples: Cassettes/Tubes Intact  Canisters Pressurized  Tedlar® Bags Inflated   NA
- Explain any discrepancies: Volatiles testing indicated on COC, no vials rec'd; split into vial vials per Joe Hunt

	YES	NO	Sample I.D.	Reagent	Vol. Added
pH					
12				NaOH	
2				HNO <sub>3</sub>	
2				H <sub>2</sub> SO <sub>4</sub>	
5-9*				P/PCBs (608 only)	

YES = All samples OK      NO = Samples were preserved at lab as listed      PC OK to adjust pH \_\_\_\_\_  
 \*If pH adjustment is required, use NaOH and/or H<sub>2</sub>SO<sub>4</sub>

VOC Vial pH Verification (Tested after Analysis) Following Samples Exhibited pH > 2		

Other Comments:



**APPENDIX D**  
**LABORATORY ANALYTICAL REPORT**  
**AUGUST 2000 GROUNDWATER MONITORING**

2000 Site Investigation Report  
Former Fort James Specialty Chemicals  
906 NW Drake Street  
Camas, Washington  
SECOR PN: 015.08860.002  
January 17, 2001





Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8223  
 425.420.9200 fax 425.420.9210  
 Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
--	---	-----------------------------

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	P008562-01	Water	08/25/00 13:15	08/29/00 11:30
MW2	P008562-02	Water	08/25/00 12:37	08/29/00 11:30
MW3	P008562-03	Water	08/25/00 14:00	08/29/00 11:30

North Creek Analytical - Portland

*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.*

  
 Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.  
 Environmental Laboratory Network**



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8223  
 425.420.9200 fax 425.420.9210  
 Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
 Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

CCOR  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

**Hydrocarbon Identification per NW-TPH Methodology**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/25/00		Received: 08/29/00	
<b>MW1 (P008562-01) Water</b>									
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	09/01/00	09/05/00	0090013	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	102 %	50-150							
						Sampled: 08/25/00		Received: 08/29/00	
<b>MW2 (P008562-02) Water</b>									
Gasoline Range Hydrocarbons	DET	0.250	mg/l	1	NWTPH HCID	09/01/00	09/05/00	0090013	D-15
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	100 %	50-150							
						Sampled: 08/25/00		Received: 08/29/00	
<b>MW3 (P008562-03) Water</b>									
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	09/01/00	09/05/00	0090013	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
<i>Surr: 1-Chlorooctadecane</i>	99.6 %	50-150							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network


Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
--	---	-----------------------------

**Gasoline Hydrocarbons per NW TPH-Gx Method  
North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW2 (P008562-02RE1) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
<b>Gasoline Range Hydrocarbons</b>	<b>732</b>	<b>80.0</b>	<b>ug/l</b>	<b>1</b>	<b>NW TPH-Gx</b>	<b>09/08/00</b>	<b>09/08/00</b>	<b>0090138</b>	
<i>Surr: 4-BFB</i>	<i>107 %</i>	<i>50-150</i>							

North Creek Analytical - Portland

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\_\_\_\_\_  
Lisa Domenighini, Project Manager



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8223  
 425.420.9200 fax 425.420.9210  
 Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
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 503.906.9200 fax 503.906.9210  
 Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

Cor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

**Polychlorinated Biphenyls per EPA Method 8082**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
---------	--------	-----------------	-------	----------	--------	----------	----------	-------	-------

**MW1 (P008562-01) Water** Sampled: 08/25/00 Received: 08/29/00

Aroclor 1016	ND	0.500	ug/l	1	EPA 8082	08/31/00	09/14/00	0080774	
Aroclor 1221	ND	1.00	"	"	"	"	"	"	
Aroclor 1232	ND	0.500	"	"	"	"	"	"	
Aroclor 1242	ND	0.500	"	"	"	"	"	"	
Aroclor 1248	ND	0.500	"	"	"	"	"	"	
Aroclor 1254	ND	0.500	"	"	"	"	"	"	
Aroclor 1260	ND	0.500	"	"	"	"	"	"	

Surr: 2,4,5,6-Tetrachloro-m-xylene 70.0 % 44-119  
 Surr: Decachlorobiphenyl 21.0 % 54-128 S-07

**MW2 (P008562-02) Water** Sampled: 08/25/00 Received: 08/29/00

Aroclor 1016	ND	0.500	ug/l	1	EPA 8082	08/31/00	09/14/00	0080774	
Aroclor 1221	ND	1.00	"	"	"	"	"	"	
Aroclor 1232	ND	0.500	"	"	"	"	"	"	
Aroclor 1242	ND	0.500	"	"	"	"	"	"	
Aroclor 1248	ND	0.500	"	"	"	"	"	"	
Aroclor 1254	ND	0.500	"	"	"	"	"	"	
Aroclor 1260	ND	0.500	"	"	"	"	"	"	

Surr: 2,4,5,6-Tetrachloro-m-xylene 78.2 % 44-119  
 Surr: Decachlorobiphenyl 49.3 % 54-128 S-07

**MW3 (P008562-03) Water** Sampled: 08/25/00 Received: 08/29/00

Aroclor 1016	ND	0.500	ug/l	1	EPA 8082	08/31/00	09/14/00	0080774	
Aroclor 1221	ND	1.00	"	"	"	"	"	"	
Aroclor 1232	ND	0.500	"	"	"	"	"	"	
Aroclor 1242	ND	0.500	"	"	"	"	"	"	
Aroclor 1248	ND	0.500	"	"	"	"	"	"	
Aroclor 1254	ND	0.500	"	"	"	"	"	"	
Aroclor 1260	ND	0.500	"	"	"	"	"	"	

Surr: 2,4,5,6-Tetrachloro-m-xylene 76.0 % 44-119  
 Surr: Decachlorobiphenyl 25.6 % 54-128 S-07

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716  
Project Manager: Joe Hunt

Reported:  
09/19/00 12:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW1 (P008562-01) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acetone	ND	10.0	ug/l	1	EPA 8260B	09/08/00	09/08/00	0090152	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
<b>Chlorobenzene</b>	<b>11.1</b>	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
<b>1,2-Dichlorobenzene</b>	<b>76.6</b>	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
<b>1,4-Dichlorobenzene</b>	<b>2.51</b>	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
<b>cis-1,2-Dichloroethene</b>	<b>2.39</b>	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

Page 5 of 32

LCCOR  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

 Reported:  
 09/19/00 12:39

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW1 (P008562-01) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	09/08/00	09/08/00	0090152	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	23.6	1.00	"	"	"	"	"	"	
Toluene	1.94	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	1.22	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	1.10	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	94.0 %	75-125							
Surr: 1,2-DCA-d4	104 %	75-125							
Surr: Dibromofluoromethane	101 %	75-125							
Surr: Toluene-d8	97.5 %	75-125							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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 Environmental Laboratory Network

Page 6 of 32

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
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**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW2 (P008562-02) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acetone	ND	10.0	ug/l	1	EPA 8260B	09/08/00	09/08/00	0090152	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
<b>Chloroform</b>	<b>1.15</b>	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager



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Color  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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MW2 (P008562-02) Water

Sampled: 08/25/00 Received: 08/29/00

Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	09/08/00	09/08/00	0090152	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	2.32	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	2.71	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	

Surr: 4-BFB	108 %	75-125
Surr: 1,2-DCA-d4	99.0 %	75-125
Surr: Dibromofluoromethane	96.0 %	75-125
Surr: Toluene-d8	97.0 %	75-125

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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 Environmental Laboratory Network

Page 8 of 32



Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

 Reported:  
 09/19/00 12:39

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW3 (P008562-03) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acetone	ND	10.0	ug/l	1	EPA 8260B	09/08/00	09/08/00	0090152	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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CCOR  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/25/00 Received: 08/29/00			
<b>MW3 (P008562-03) Water</b>									
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	09/08/00	09/08/00	0090152	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	17.5	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	108 %	75-125							
Surr: 1,2-DCA-d4	103 %	75-125							
Surr: Dibromofluoromethane	99.0 %	75-125							
Surr: Toluene-d8	96.5 %	75-125							

North Creek Analytical - Portland

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Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW1 (P008562-01) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	09/01/00	09/06/00	0090018	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**



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Accor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716  
 Tualatin, OR 97062 Project Manager: Joe Hunt  
 Reported: 09/19/00 12:39


**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
---------	--------	-----------------	-------	----------	--------	----------	----------	-------	-------

						Sampled: 08/25/00	Received: 08/29/00		
<b>MW1 (P008562-01) Water</b>									
Fluorene	ND	5.00	ug/l	1	EPA 8270C	09/01/00	09/06/00	0090018	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	98.9 %	26-135							
Surr: 2-Fluorophenol	59.6 %	6-124							
Surr: Nitrobenzene-d5	101 %	23-147							
Surr: Phenol-d6	41.2 %	11-130							
Surr: p-Terphenyl-d14	97.7 %	38-149							
Surr: 2,4,6-Tribromophenol	112 %	19-126							

North Creek Analytical - Portland

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North Creek Analytical, Inc. Page 12 of 32  
 Environmental Laboratory Network

Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716  
Project Manager: Joe Hunt

Reported:  
09/19/00 12:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW2 (P008562-02) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	09/01/00	09/06/00	0090018	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
<b>2-Chlorophenol</b>	<b>11.0</b>	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
<b>1,2-Dichlorobenzene</b>	<b>74.4</b>	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
<b>Bis(2-ethylhexyl)phthalate</b>	<b>10.1</b>	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

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Page 13 of 32

Cor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

 Reported:  
 09/19/00 12:39

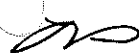
### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 08/25/00 Received: 08/29/00			
<b>MW2 (P008562-02) Water</b>									
Fluorene	ND	5.00	ug/l	1	EPA 8270C	09/01/00	09/06/00	0090018	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
<i>Surr: 2-Fluorobiphenyl</i>	93.2 %	26-135							
<i>Surr: 2-Fluorophenol</i>	53.7 %	6-124							
<i>Surr: Nitrobenzene-d5</i>	91.5 %	23-147							
<i>Surr: Phenol-d6</i>	36.6 %	11-130							
<i>Surr: p-Terphenyl-d14</i>	87.1 %	38-149							
<i>Surr: 2,4,6-Tribromophenol</i>	113 %	19-126							

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Page 14 of 32



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 541.383.9310 fax 541.382.7588

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
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**Semivolatile Organic Compounds per EPA Method 8270C  
 North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW3 (P008562-03) Water</b>						<b>Sampled: 08/25/00 Received: 08/29/00</b>			
Acenaphthene	ND	5.00	ug/l	I	EPA 8270C	09/01/00	09/06/00	0090018	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	22.0	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

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Accor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716 Reported:  
 Tualatin, OR 97062 Project Manager: Joe Hunt 09/19/00 12:39

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW3 (P008562-03) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Fluorene	ND	5.00	ug/l	1	EPA 8270C	09/01/00	09/06/00	0090018	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	94.7 %	26-135							
Surr: 2-Fluorophenol	55.2 %	6-124							
Surr: Nitrobenzene-d5	96.8 %	23-147							
Surr: Phenol-d6	38.5 %	11-130							
Surr: p-Terphenyl-d14	94.8 %	38-149							
Surr: 2,4,6-Tribromophenol	111 %	19-126							

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
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**Conventional Chemistry Parameters per APHA/EPA Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW1 (P008562-01) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acidity	17.1	10.0	mg/l	1	EPA 305.2	09/14/00	09/14/00	0090361	I-02
Total Alkalinity	52.8	10.0	"	"	EPA 310.1	09/08/00	09/08/00	0090296	
<b>MW2 (P008562-02) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acidity	15.4	10.0	mg/l	1	EPA 305.2	09/14/00	09/14/00	0090361	I-02
Total Alkalinity	63.1	10.0	"	"	EPA 310.1	09/08/00	09/08/00	0090296	
<b>MW3 (P008562-03) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acidity	16.1	10.0	mg/l	1	EPA 305.2	09/14/00	09/14/00	0090361	I-02
Total Alkalinity	89.9	10.0	"	"	EPA 310.1	09/08/00	09/08/00	0090296	

North Creek Analytical - Portland

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For P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
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**Dissolved Metals by EPA 6000/7000 Series Methods**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW1 (P008562-01) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Arsenic	ND	0.00100	mg/l	1	EPA 6020	09/11/00	09/12/00	0111019	
Barium	0.00362	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.00125	"	"	EPA 7470A	09/15/00	09/18/00	0115024	
Selenium	ND	0.00100	"	"	EPA 6020	09/11/00	09/12/00	0111019	
Silver	ND	0.00100	"	"	"	"	"	"	

<b>MW2 (P008562-02) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Arsenic	0.00268	0.00100	mg/l	1	EPA 6020	09/11/00	09/12/00	0111019	
Barium	0.0625	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00344	0.00100	"	"	"	"	"	"	
Lead	0.00367	0.00100	"	"	"	"	"	"	
Mercury	ND	0.00125	"	"	EPA 7470A	09/15/00	09/18/00	0115024	
Selenium	ND	0.00100	"	"	EPA 6020	09/11/00	09/12/00	0111019	
Silver	0.00133	0.00100	"	"	"	"	"	"	

<b>MW3 (P008562-03) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Arsenic	ND	0.00100	mg/l	1	EPA 6020	09/11/00	09/12/00	0111019	
Barium	0.00777	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.00100	"	"	EPA 7470A	09/15/00	09/18/00	0115024	
Selenium	ND	0.00100	"	"	EPA 6020	09/11/00	09/12/00	0111019	
Silver	ND	0.00100	"	"	"	"	"	"	

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
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**Hydrocarbon Identification per NW-111 Methodology - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0090013 - EPA 3510 Fuels**

<b>Blank (0090013-BLK1)</b>		Prepared: 09/01/00 Analyzed: 09/05/00								
Gasoline Range Hydrocarbons	ND	0.125	mg/l							
Diesel Range Hydrocarbons	ND	0.315	"							
Heavy Oil Range Hydrocarbons	ND	0.315	"							
<i>Surr: 1-Chlorooctadecane</i>	<i>DET</i>		"	<i>0.100</i>		<i>97.0</i>	<i>50-150</i>			

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 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

Gasoline Hydrocarbons per NW 10PH-G-5 Method - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0090110 - EPA 5030B

Blank (0090110-BLK1) Prepared & Analyzed: 09/07/00										
Gasoline Range Hydrocarbons	ND	80.0	ug/l							
Surr: 4-BFB	45.3		"	50.0		90.6	50-150			

LCS (0090110-BS1) Prepared & Analyzed: 09/07/00										
Gasoline Range Hydrocarbons	1100	80.0	ug/l	1250		88.0	50-150			
Surr: 4-BFB	52.6		"	50.0		105	50-150			

Duplicate (0090110-DUP1) Source: P008562-02 Prepared & Analyzed: 09/07/00										
Gasoline Range Hydrocarbons	ND	4000	ug/l		ND				50	
Surr: 4-BFB	44.0		"	50.0		88.0	50-150			

Batch 0090138 - EPA 5030B

Blank (0090138-BLK1) Prepared & Analyzed: 09/08/00										
Gasoline Range Hydrocarbons	ND	80.0	ug/l							
Surr: 4-BFB	52.4		"	50.0		105	50-150			

LCS (0090138-BS1) Prepared & Analyzed: 09/08/00										
Gasoline Range Hydrocarbons	1220	80.0	ug/l	1250		97.6	50-150			
Surr: 4-BFB	68.8		"	50.0		138	50-150			

Duplicate (0090138-DUP1) Source: P009036-02 Prepared: 09/08/00 Analyzed: 09/09/00										
Gasoline Range Hydrocarbons	160	80.0	ug/l		146			9.15	50	
Surr: 4-BFB	55.3		"	50.0		111	50-150			

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
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**Polychlorinated Biphenyls, per EPA Method 8082 - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	Limit	RPD	RPD Limit	Notes
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**Batch 0080774 - EPA 3510/600 Series**

**Blank (0080774-BLK1)**

Prepared: 08/31/00 Analyzed: 09/14/00

Aroclor 1016	ND	0.500	ug/l							
Aroclor 1221	ND	1.00	"							
Aroclor 1232	ND	0.500	"							
Aroclor 1242	ND	0.500	"							
Aroclor 1248	ND	0.500	"							
Aroclor 1254	ND	0.500	"							
Aroclor 1260	ND	0.500	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	0.415		"	0.500		83.0	44-119			
Surr: Decachlorobiphenyl	0.446		"	0.500		89.2	54-128			

**LCS (0080774-BS1)**

Prepared: 08/31/00 Analyzed: 09/14/00

Aroclor 1016	4.28	0.500	ug/l	5.00		85.6	45-145			
Aroclor 1260	4.45	0.500	"	5.00		89.0	47-155			
Surr: 2,4,5,6-Tetrachloro-m-xylene	0.391		"	0.500		78.2	44-119			
Surr: Decachlorobiphenyl	0.368		"	0.500		73.6	54-128			

**LCS Dup (0080774-BSD1)**

Prepared: 08/31/00 Analyzed: 09/14/00

Aroclor 1016	5.10	0.500	ug/l	5.00		102	45-145	17.5	50	
Aroclor 1260	5.15	0.500	"	5.00		103	47-155	14.6	50	
Surr: 2,4,5,6-Tetrachloro-m-xylene	0.456		"	0.500		91.2	44-119			
Surr: Decachlorobiphenyl	0.422		"	0.500		84.4	54-128			

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Page 21 of 32

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Project: Fort James Specialty Chemicals  
Project Number: 015.08716  
Project Manager: Joe Hunt

Reported:  
09/19/00 12:39

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0090152 - EPA 5030

Prepared: 09/08/00 Analyzed: 09/09/00

Blank (0090152-BLK1)

Acetone	ND	10.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	5.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	5.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	10.0	"
Carbon tetrachloride	ND	1.00	"
robenzene	ND	1.00	"
Enforoethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	5.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"

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Page 22 of 32

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Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0090152 - EPA 5030

Blank (0090152-BLK1)

Prepared: 09/08/00 Analyzed: 09/09/00

cis-1,3-Dichloropropene	ND	1.00	ug/l							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	2.00	"							
p-Isopropyltoluene	ND	2.00	"							
4-Methyl-2-pentanone	ND	5.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	2.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surr: 4-BFB	21.5		"	20.0		108	75-125			
Surr: 1,2-DCA-d4	20.2		"	20.0		101	75-125			
Surr: Dibromofluoromethane	20.2		"	20.0		101	75-125			
Surr: Toluene-d8	20.1		"	20.0		101	75-125			

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Page 23 of 32

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Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0090152 - EPA 5030

LCS (0090152-BS1)		Prepared: 09/08/00		Analyzed: 09/09/00						
Benzene	17.0	1.00	ug/l	20.0	85.0	80-125				
Chlorobenzene	18.4	1.00	"	20.0	92.0	80-125				
1,1-Dichloroethene	18.6	1.00	"	20.0	93.0	70-135				
Toluene	17.6	1.00	"	20.0	88.0	80-125				
Trichloroethene	15.6	1.00	"	20.0	78.0	70-130				
Surr: 4-BFB	21.3		"	20.0	106	75-125				
Surr: 1,2-DCA-d4	20.3		"	20.0	101	75-125				
Surr: Dibromofluoromethane	20.1		"	20.0	101	75-125				
Surr: Toluene-d8	20.1		"	20.0	101	75-125				

LCS Dup (0090152-BSD1)		Prepared: 09/08/00		Analyzed: 09/09/00						
Benzene	16.5	1.00	ug/l	20.0	82.5	80-125	2.99	25		
Chlorobenzene	17.9	1.00	"	20.0	89.5	80-125	2.75	25		
Dichloroethene	17.5	1.00	"	20.0	87.5	70-135	6.09	25		
Toluene	16.8	1.00	"	20.0	84.0	80-125	4.65	25		
Trichloroethene	14.3	1.00	"	20.0	71.5	70-130	8.70	25		
Surr: 4-BFB	20.2		"	20.0	101	75-125				
Surr: 1,2-DCA-d4	21.1		"	20.0	106	75-125				
Surr: Dibromofluoromethane	20.6		"	20.0	103	75-125				
Surr: Toluene-d8	20.1		"	20.0	101	75-125				

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Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0090018 - EPA 3510/600 Series

Blank (0090018-BLK1)

Prepared: 09/01/00 Analyzed: 09/05/00

Accnaphthene	ND	5.00	ug/l							
Acenaphthylene	ND	5.00	"							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (ghi) perylene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzoic Acid	ND	50.0	"							
Benzyl alcohol	ND	10.0	"							
4-Bromophenyl phenyl ether	ND	5.00	"							
Butyl benzyl phthalate	ND	5.00	"							
4-Chloro-3-methylphenol	ND	5.00	"							
4-Chloroaniline	ND	20.0	"							
Bis(2-chloroethoxy)methane	ND	10.0	"							
Bis(2-chloroethyl)ether	ND	5.00	"							
Bis(2-chloroisopropyl)ether	ND	10.0	"							
2-Chloronaphthalene	ND	5.00	"							
2-Chlorophenol	ND	5.00	"							
4-Chlorophenyl phenyl ether	ND	5.00	"							
Chrysene	ND	5.00	"							
Di-n-butyl phthalate	ND	5.00	"							
Di-n-octyl phthalate	ND	5.00	"							
Dibenzo (a,h) anthracene	ND	5.00	"							
Dibenzofuran	ND	5.00	"							
1,2-Dichlorobenzene	ND	5.00	"							
1,3-Dichlorobenzene	ND	5.00	"							
1,4-Dichlorobenzene	ND	5.00	"							
3,3'-Dichlorobenzidine	ND	5.00	"							
2,4-Dichlorophenol	ND	5.00	"							
Diethyl phthalate	ND	5.00	"							
2,4-Dimethylphenol	ND	10.0	"							
Dimethyl phthalate	ND	5.00	"							
4,6-Dinitro-2-methylphenol	ND	10.0	"							
2,4-Dinitrophenol	ND	25.0	"							
2,4-Dinitrotoluene	ND	5.00	"							

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Page 25 of 32

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**Semivolatile Organic Compounds per EPA Method 8270C - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0090018 - EPA 3510/600 Series**

**Blank (0090018-BLK1)** Prepared: 09/01/00 Analyzed: 09/05/00

2,6-Dinitrotoluene	ND	5.00	ug/l							
Bis(2-ethylhexyl)phthalate	ND	10.0	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Hexachlorobenzene	ND	5.00	"							
Hexachlorobutadiene	ND	10.0	"							
Hexachlorocyclopentadiene	ND	10.0	"							
Hexachloroethane	ND	10.0	"							
Indeno (1,2,3-cd) pyrene	ND	5.00	"							
Isophorone	ND	5.00	"							
2-Methylnaphthalene	ND	5.00	"							
2-Methylphenol	ND	10.0	"							
3-,4-Methylphenol	ND	5.00	"							
Phthalene	ND	5.00	"							
2-Nitroaniline	ND	5.00	"							
3-Nitroaniline	ND	10.0	"							
4-Nitroaniline	ND	10.0	"							
Nitrobenzene	ND	5.00	"							
2-Nitrophenol	ND	5.00	"							
4-Nitrophenol	ND	25.0	"							
N-Nitrosodi-n-propylamine	ND	10.0	"							
N-Nitrosodiphenylamine	ND	5.00	"							
Pentachlorophenol	ND	10.0	"							
Phenanthrene	ND	5.00	"							
Phenol	ND	5.00	"							
Pyrene	ND	5.00	"							
1,2,4-Trichlorobenzene	ND	5.00	"							
2,4,5-Trichlorophenol	ND	5.00	"							
2,4,6-Trichlorophenol	ND	5.00	"							
Surr: 2-Fluorobiphenyl	79.1		"	75.0		105	26-135			
Surr: 2-Fluorophenol	88.8		"	150		59.2	6-124			
Surr: Nitrobenzene-d5	78.2		"	75.0		104	23-147			
Surr: Phenol-d6	60.8		"	150		40.5	11-130			
Surr: p-Terphenyl-d14	79.0		"	75.0		105	38-149			
Surr: 2,4,6-Tribromophenol	151		"	150		101	19-126			

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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0090018 - EPA 3510/600 Series

LCS (0090018-BS1)

Prepared: 09/01/00 Analyzed: 09/05/00

Acenaphthene	65.1	5.00	ug/l	75.0		86.8	40-110			
4-Chloro-3-methylphenol	122	5.00	"	150		81.3	40-110			
2-Chlorophenol	122	5.00	"	150		81.3	40-110			
1,4-Dichlorobenzene	55.7	5.00	"	75.0		74.3	20-90			
2,4-Dinitrotoluene	62.7	5.00	"	75.0		83.6	50-110			
4-Nitrophenol	48.5	25.0	"	150		32.3	15-100			
N-Nitrosodi-n-propylamine	59.6	10.0	"	75.0		79.5	40-110			
Pentachlorophenol	118	10.0	"	150		78.7	30-120			
Phenol	56.2	5.00	"	150		37.5	15-110			
Pyrene	56.3	5.00	"	75.0		75.1	40-110			
1,2,4-Trichlorobenzene	54.5	5.00	"	75.0		72.7	25-100			
Surr: 2-Fluorobiphenyl	77.4		"	75.0		103	26-135			
Surr: 2-Fluorophenol	91.2		"	150		60.8	6-124			
Surr: Nitrobenzene-d5	74.6		"	75.0		99.5	23-147			
Surr: Phenol-d6	62.4		"	150		41.6	11-130			
Surr: p-Terphenyl-d14	73.9		"	75.0		98.5	38-149			
Surr: 2,4,6-Tribromophenol	155		"	150		103	19-126			

LCS Dup (0090018-BSD1)

Prepared: 09/01/00 Analyzed: 09/06/00

Acenaphthene	66.9	5.00	ug/l	75.0		89.2	40-110	2.73	25	
4-Chloro-3-methylphenol	128	5.00	"	150		85.3	40-110	4.80	25	
2-Chlorophenol	126	5.00	"	150		84.0	40-110	3.23	25	
1,4-Dichlorobenzene	57.0	5.00	"	75.0		76.0	20-90	2.31	35	
2,4-Dinitrotoluene	68.3	5.00	"	75.0		91.1	50-110	8.55	25	
4-Nitrophenol	54.9	25.0	"	150		36.6	15-100	12.4	35	
N-Nitrosodi-n-propylamine	63.1	10.0	"	75.0		84.1	40-110	5.70	30	
Pentachlorophenol	133	10.0	"	150		88.7	30-120	12.0	30	
Phenol	58.2	5.00	"	150		38.8	15-110	3.50	30	
Pyrene	55.5	5.00	"	75.0		74.0	40-110	1.43	25	
1,2,4-Trichlorobenzene	55.2	5.00	"	75.0		73.6	25-100	1.28	30	
Surr: 2-Fluorobiphenyl	76.9		"	75.0		103	26-135			
Surr: 2-Fluorophenol	93.8		"	150		62.5	6-124			
Surr: Nitrobenzene-d5	74.4		"	75.0		99.2	23-147			
Surr: Phenol-d6	64.3		"	150		42.9	11-130			
Surr: p-Terphenyl-d14	69.6		"	75.0		92.8	38-149			
Surr: 2,4,6-Tribromophenol	169		"	150		113	19-126			

North Creek Analytical - Portland

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 Environmental Laboratory Network



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Cor  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716  
 Project Manager: Joe Hunt

Reported:  
 09/19/00 12:39

**Semi-volatile Organic Compounds per EPA Method 8210C - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 0090018 - EPA 3510/600 Series**

North Creek Analytical - Portland

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**Environmental Laboratory Network**



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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
--	---	-----------------------------

Conventional Chemistry Parameters per APHA/MDA Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 0090296 - Wet Chem

Blank (0090296-BLK1) Prepared & Analyzed: 09/08/00

Total Alkalinity	ND	10.0	mg/l							
------------------	----	------	------	--	--	--	--	--	--	--

LCS (0090296-BS1) Prepared & Analyzed: 09/08/00

Total Alkalinity	191	10.0	mg/l	200	95.5	85-115				
------------------	-----	------	------	-----	------	--------	--	--	--	--

Duplicate (0090296-DUP1) Source: P008562-01 Prepared & Analyzed: 09/08/00

Total Alkalinity	52.1	10.0	mg/l	52.8			1.33	20		
------------------	------	------	------	------	--	--	------	----	--	--

Batch 0090361 - Wet Chem

Blank (0090361-BLK1) Prepared & Analyzed: 09/14/00

Acidity	ND	10.0	mg/l							
---------	----	------	------	--	--	--	--	--	--	--

Duplicate (0090361-DUP1) Source: P008562-01 Prepared & Analyzed: 09/14/00

Acidity	14.4	10.0	mg/l	17.1			17.1	20		
---------	------	------	------	------	--	--	------	----	--	--

North Creek Analytical - Portland

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Client: **Cor** Project: **Fort James Specialty Chemicals**  
 P.O. Box 1508 Project Number: **015.08716**  
 Tualatin, OR 97062 Project Manager: **Joe Hunt** Reported: **09/19/00 12:39**

**Disso/veit Metals by EPA 6000/7000 Series Methods - Quality Control**

**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 0I11019 - EPA 3005A**

**Blank (0I11019-BLK1)** Prepared: 09/11/00 Analyzed: 09/12/00

Arsenic	ND	0.00100	mg/l							
Barium	ND	0.00100	"							
Cadmium	ND	0.00100	"							
Chromium	ND	0.00100	"							
Lead	ND	0.00100	"							
Selenium	ND	0.00100	"							
Silver	ND	0.00100	"							

**LCS (0I11019-BS1)** Prepared: 09/11/00 Analyzed: 09/12/00

Arsenic	0.189	0.00100	mg/l	0.200		94.5	80-120			
Barium	0.196	0.00100	"	0.200		98.0	80-120			
Cadmium	0.198	0.00100	"	0.200		99.0	80-120			
Chromium	0.196	0.00100	"	0.200		98.0	80-120			
Lead	0.190	0.00100	"	0.200		95.0	80-120			
Selenium	0.203	0.00100	"	0.200		101	80-120			
Silver	0.203	0.00100	"	0.200		101	60-140			

**Matrix Spike (0I11019-MS1)** Source: P008562-01 Prepared: 09/11/00 Analyzed: 09/12/00

Arsenic	0.183	0.00100	mg/l	0.200	ND	91.3	75-125			
Barium	0.209	0.00100	"	0.200	0.00362	103	75-125			
Cadmium	0.191	0.00100	"	0.200	ND	95.4	75-125			
Chromium	0.191	0.00100	"	0.200	ND	95.2	75-125			
Lead	0.198	0.00100	"	0.200	ND	98.9	75-125			
Selenium	0.171	0.00100	"	0.200	ND	85.2	75-125			
Silver	0.171	0.00100	"	0.200	ND	85.0	60-140			

**Matrix Spike Dup (0I11019-MSD1)** Source: P008562-01 Prepared: 09/11/00 Analyzed: 09/12/00

Arsenic	0.185	0.00100	mg/l	0.200	ND	92.3	75-125	1.09	20	
Barium	0.209	0.00100	"	0.200	0.00362	103	75-125	0	20	
Cadmium	0.195	0.00100	"	0.200	ND	97.4	75-125	2.07	20	
Chromium	0.190	0.00100	"	0.200	ND	94.7	75-125	0.525	20	
Lead	0.197	0.00100	"	0.200	ND	98.4	75-125	0.506	20	
Selenium	0.168	0.00100	"	0.200	ND	83.7	75-125	1.77	20	
Silver	0.165	0.00100	"	0.200	ND	82.0	60-140	3.57	40	

North Creek Analytical - Portland

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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
--	---	-----------------------------

**Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control**

**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 0115024 - EPA 7470A</b>										
<b>Blank (0115024-BLK1)</b> Prepared: 09/15/00 Analyzed: 09/18/00										
Mercury	ND	0.00100	mg/l							
<b>Blank (0115024-BLK2)</b> Prepared: 09/15/00 Analyzed: 09/18/00										
Mercury	ND	0.00100	mg/l							
<b>LCS (0115024-BS1)</b> Prepared: 09/15/00 Analyzed: 09/18/00										
Mercury	0.00512	0.00100	mg/l	0.00500		102	70-130			
<b>Matrix Spike (0115024-MS1)</b> Source: B0I0128-02 Prepared: 09/15/00 Analyzed: 09/18/00										
Mercury	0.00301	0.00100	mg/l	0.00500	ND	60.2	75-125			Q-13
<b>Matrix Spike Dup (0115024-MSD1)</b> Source: B0I0128-02 Prepared: 09/15/00 Analyzed: 09/18/00										
Mercury	0.00303	0.00100	mg/l	0.00500	ND	60.6	75-125	0.662	20	Q-13

North Creek Analytical - Portland

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Environmental Laboratory Network

Decor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716  
Project Manager: Joe Hunt

Reported:  
09/19/00 12:39

### Notes and Definitions

- D-15 Detected hydrocarbons have non-petroleum peaks or elution pattern that suggests the presence of biogenic interference.
- I-02 This sample was analyzed outside of the EPA recommended holding time.
- Q-13 Multiple analyses indicate the percent recovery is outside the control limits due to a matrix effect.
- S-07 Surrogate recovery is out of control limits. QA criteria are met when one surrogate is within control limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- wet Sample results reported on a wet weight basis
- RPD Relative Percent Difference

North Creek Analytical - Portland

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**NORTH CREEK ANALYTICAL**  
Environmental Laboratory Services

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**CHAIN OF CUSTODY REPORT**

Work Order # **P008562**

REPORT TO: **SECOR** INVOICE TO: **Same**

ATTENTION: **Joe Hunt**

ADDRESS: **7730 SW. Mohawk St.  
Tualatin, Oregon 97062**

PHONE: **503-691-2030** FAX: **503-692-7074**

PROJECT NAME: **Fort James Specialty Chemicals**

PROJECT NUMBER: **015-08716**

SAMPLED BY: **ME**

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	Analysis Request:	8260B	8270CM	WTPH-HCID	6010/7008	305.1/310.1	ERA 808R
1. MW1-082500	8/25/00 1315		X	X	X	X	X	X	X
2. MW2-082500	1237		X	X	X	X	X	X	X
3. MW3-082500	1400		X	X	X	X	X	X	X
4.									
5.									
6.									
7.									
8.									
9.									
10.									

TURNAROUND REQUEST In Business Day: \*  
 7  5  4  3  2  1  Same Day  
 Organic & Inorganic Analyses  
 5  3-4  2  1  Same Day  
 Fuels & Hydrocarbon Analyses  
 Standard

OTHER Specify: \_\_\_\_\_  
 \* Turnaround Request less than standard may incur Rush Charges.

MATRIX (W.S.A.O)	# OF CONTAINERS	COMMENT
W	8	see below
↓	8	↓
↓	8	↓

RECEIVED BY (Signature): *[Signature]* DATE: **8-29-00**

PRINT NAME: **Wmmy Spangler** FIRM: **SECOR** TIME: **1045**

RECEIVED BY (Signature): *[Signature]* DATE: **8-29-00**

PRINT NAME: **E. Morgan** FIRM: **NCA** TIME: **1015**

RECEIVED BY (Signature): *[Signature]* DATE: **8-29-00**

PRINT NAME: **E. Morgan** FIRM: **NCA** TIME: **1015**

ADDITIONAL REMARKS: **neutral extractable SVOC's**  
**WTPH-HCID - quantity as gas/diesel/oil**  
**305.1/310.1 - acid/alkalinity**

**APPENDIX E**  
**LABORATORY ANALYTICAL REPORT**  
**NOVEMBER 2000 GROUNDWATER MONITORING**

2000 Site Investigation Report  
Former Fort James Specialty Chemicals  
906 NW Drake Street  
Camas, Washington  
SECOR PN: 015.08860.002  
January 17, 2001



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Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 12/01/00 09:34
--	---	-----------------------------

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W4-111000	P0K0303-01	Water	11/10/00 13:10	11/13/00 13:00
W5-111000	P0K0303-02	Water	11/10/00 12:45	11/13/00 13:00

North Creek Analytical - Portland

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For  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 12/01/00 09:34

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 11/10/00 Received: 11/13/00			
<b>W4-111000 (POK0303-01) Water</b>									
Acetone	11.4	10.0	ug/l	1	EPA 8260B	11/14/00	11/14/00	0110489	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	3.36	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	8.46	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Secor  
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 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 12/01/00 09:34

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 11/10/00	Received: 11/13/00		
<b>W4-111000 (P0K0303-01) Water</b>									
Ethylbenzene	ND	1.00	ug/l	1	EPA 8260B	11/14/00	11/14/00	0110489	
Hexachlorobutadiene	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	104 %	75-125							
Surr: 1,2-DCA-d4	99.0 %	75-125							
Surr: Dibromofluoromethane	94.5 %	75-125							
Surr: Toluene-d8	95.5 %	75-125							

North Creek Analytical - Portland

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Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 12/01/00 09:34

**Volatile Organic Compounds per EPA Method 8260B**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>W5-111000 (P0K0303-02) Water</b>						Sampled: 11/10/00 Received: 11/13/00			
Acetone	ND	10.0	ug/l	1	EPA 8260B	11/14/00	11/14/00	0110489	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 12/01/00 09:34

### Volatile Organic Compounds per EPA Method 8260B

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>WS-111000 (POK0303-02) Water</b>						Sampled: 11/10/00 Received: 11/13/00			
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	11/14/00	11/14/00	0110489	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	104 %	75-125							
Surr: 1,2-DCA-d4	99.5 %	75-125							
Surr: Dibromofluoromethane	94.5 %	75-125							
Surr: Toluene-d8	93.0 %	75-125							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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**Environmental Laboratory Network**

Page 5 of 17

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 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 12/01/00 09:34

### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>W4-111000 (P0K0303-01) Water</b>						Sampled: 11/10/00 Received: 11/13/00			
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	11/16/00	11/20/00	0110577	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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 541.383.9310 fax 541.382.7588

Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716.001 Project Manager: Joe Hunt	Reported: 12/01/00 09:34
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**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>W4-111000 (P0K0303-01) Water</b>						<b>Sampled: 11/10/00 Received: 11/13/00</b>			
Fluorene	ND	5.00	ug/l	1	EPA 8270C	11/16/00	11/20/00	0110577	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	54.9 %	26-135							
Surr: 2-Fluorophenol	35.5 %	6-124							
Surr: Nitrobenzene-d5	54.7 %	23-147							
Surr: Phenol-d6	23.6 %	11-130							
Surr: p-Terphenyl-d14	75.7 %	38-149							
Surr: 2,4,6-Tribromophenol	71.8 %	19-126							

North Creek Analytical - Portland

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 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 12/01/00 09:34

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
						Sampled: 11/10/00 Received: 11/13/00			
W5-111000 (POK0303-02) Water									
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	11/16/00	11/20/00	0110577	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 12/01/00 09:34

### Semivolatile Organic Compounds per EPA Method 8270C

#### North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>W5-111000 (P0K0303-02) Water</b>					Sampled: 11/10/00 Received: 11/13/00				
Fluorene	ND	5.00	ug/l	1	EPA 8270C	11/16/00	11/20/00	0110577	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
<i>Surr: 2-Fluorobiphenyl</i>	59.9 %	26-135							
<i>Surr: 2-Fluorophenol</i>	38.5 %	6-124							
<i>Surr: Nitrobenzene-d5</i>	60.8 %	23-147							
<i>Surr: Phenol-d6</i>	25.0 %	11-130							
<i>Surr: p-Terphenyl-d14</i>	94.6 %	38-149							
<i>Surr: 2,4,6-Tribromophenol</i>	73.5 %	19-126							

North Creek Analytical - Portland

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Client: P.O. Box 1508 Tualatin, OR 97062  
 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt  
 Reported: 12/01/00 09:34

**Volatile Organic Compounds per EPA Method 8260B - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0110489 - EPA 5030**

**Blank (0110489-BLK1)**

Prepared & Analyzed: 11/14/00

Acetone	ND	10.0	ug/l							
Benzene	ND	1.00	"							
Bromobenzene	ND	1.00	"							
Bromochloromethane	ND	1.00	"							
Bromodichloromethane	ND	1.00	"							
Bromoform	ND	1.00	"							
Bromomethane	ND	5.00	"							
2-Butanone	ND	10.0	"							
n-Butylbenzene	ND	5.00	"							
sec-Butylbenzene	ND	1.00	"							
tert-Butylbenzene	ND	1.00	"							
Carbon disulfide	ND	10.0	"							
Carbon tetrachloride	ND	1.00	"							
Chlorobenzene	ND	1.00	"							
Chloroethane	ND	1.00	"							
Chloroform	ND	1.00	"							
Chloromethane	ND	5.00	"							
2-Chlorotoluene	ND	1.00	"							
4-Chlorotoluene	ND	1.00	"							
1,2-Dibromo-3-chloropropane	ND	5.00	"							
Dibromochloromethane	ND	1.00	"							
1,2-Dibromoethane	ND	1.00	"							
Dibromomethane	ND	1.00	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
Dichlorodifluoromethane	ND	5.00	"							
1,1-Dichloroethane	ND	1.00	"							
1,2-Dichloroethane	ND	1.00	"							
1,1-Dichloroethene	ND	1.00	"							
cis-1,2-Dichloroethene	ND	1.00	"							
trans-1,2-Dichloroethene	ND	1.00	"							
1,2-Dichloropropane	ND	1.00	"							
1,3-Dichloropropane	ND	1.00	"							
2,2-Dichloropropane	ND	1.00	"							

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Secor  
 P.O. Box 1508  
 Tualatin, OR 97062

 Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

 Reported:  
 12/01/00 09:34

## Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

## North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

## Batch 0110577 - EPA 3510/600 Series

## LCS (0110577-BS1)

Prepared: 11/16/00 Analyzed: 11/20/00

Acenaphthene	35.3	5.00	ug/l	75.0		47.1	40-110			
4-Chloro-3-methylphenol	97.5	5.00	"	150		65.0	40-110			
2-Chlorophenol	78.1	5.00	"	150		52.1	40-110			
1,4-Dichlorobenzene	12.8	5.00	"	75.0		17.1	20-90			Q-01
2,4-Dinitrotoluene	53.2	5.00	"	75.0		70.9	50-110			
4-Nitrophenol	46.8	25.0	"	150		31.2	15-100			
N-Nitrosodi-n-propylamine	39.4	10.0	"	75.0		52.5	40-110			
Pentachlorophenol	120	10.0	"	150		80.0	30-120			
Phenol	36.7	5.00	"	150		24.5	15-110			
Pyrene	53.7	5.00	"	75.0		71.6	40-110			
1,2,4-Trichlorobenzene	15.0	5.00	"	75.0		20.0	25-100			Q-01
Surr: 2-Fluorobiphenyl	37.4		"	75.0		49.9	26-135			
Surr: 2-Fluorophenol	56.9		"	150		37.9	6-124			
Surr: Nitrobenzene-d5	37.7		"	75.0		50.3	23-147			
Surr: Phenol-d6	37.7		"	150		25.1	11-130			
Surr: p-Terphenyl-d14	64.8		"	75.0		86.4	38-149			
Surr: 2,4,6-Tribromophenol	123		"	150		82.0	19-126			

## LCS Dup (0110577-BSD1)

Prepared: 11/16/00 Analyzed: 11/20/00

Acenaphthene	34.2	5.00	ug/l	75.0		45.6	40-110	3.17	25	
4-Chloro-3-methylphenol	92.6	5.00	"	150		61.7	40-110	5.16	25	
2-Chlorophenol	69.4	5.00	"	150		46.3	40-110	11.8	25	
1,4-Dichlorobenzene	9.33	5.00	"	75.0		12.4	20-90	31.4	35	Q-01
2,4-Dinitrotoluene	49.4	5.00	"	75.0		65.9	50-110	7.41	25	
4-Nitrophenol	44.3	25.0	"	150		29.5	15-100	5.49	35	
N-Nitrosodi-n-propylamine	37.1	10.0	"	75.0		49.5	40-110	6.01	30	
Pentachlorophenol	115	10.0	"	150		76.7	30-120	4.26	30	
Phenol	34.1	5.00	"	150		22.7	15-110	7.34	30	
Pyrene	51.1	5.00	"	75.0		68.1	40-110	4.96	25	
1,2,4-Trichlorobenzene	11.3	5.00	"	75.0		15.1	25-100	28.1	30	Q-01
Surr: 2-Fluorobiphenyl	37.6		"	75.0		50.1	26-135			
Surr: 2-Fluorophenol	52.6		"	150		35.1	6-124			
Surr: Nitrobenzene-d5	33.2		"	75.0		44.3	23-147			
Surr: Phenol-d6	34.7		"	150		23.1	11-130			
Surr: p-Terphenyl-d14	60.9		"	75.0		81.2	38-149			
Surr: 2,4,6-Tribromophenol	115		"	150		76.7	19-126			

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager



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Client  
 P.O. Box 1508  
 Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
 Project Number: 015.08716.001  
 Project Manager: Joe Hunt

Reported:  
 12/01/00 09:34

**Volatile Organic Compounds per EPA Method 8260B - Quality Control**

**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 0110489 - EPA 5030**

**LCS (0110489-BS1)**

Prepared & Analyzed: 11/14/00

Benzene	20.0	1.00	ug/l	20.0		100	80-125			
Chlorobenzene	20.0	1.00	"	20.0		100	80-125			
1,1-Dichloroethene	21.5	1.00	"	20.0		108	70-135			
Toluene	20.3	1.00	"	20.0		101	80-125			
Trichloroethene	19.5	1.00	"	20.0		97.5	70-130			
Surr: 4-BFB	20.0		"	20.0		100	75-125			
Surr: 1,2-DCA-d4	19.6		"	20.0		98.0	75-125			
Surr: Dibromofluoromethane	18.8		"	20.0		94.0	75-125			
Surr: Toluene-d8	19.2		"	20.0		96.0	75-125			

**LCS Dup (0110489-BS1)**

Prepared & Analyzed: 11/14/00

Benzene	19.0	1.00	ug/l	20.0		95.0	80-125	5.13	25	
Chlorobenzene	18.8	1.00	"	20.0		94.0	80-125	6.19	25	
Dichloroethene	20.1	1.00	"	20.0		101	70-135	6.73	25	
Toluene	19.2	1.00	"	20.0		96.0	80-125	5.57	25	
Trichloroethene	18.4	1.00	"	20.0		92.0	70-130	5.80	25	
Surr: 4-BFB	20.0		"	20.0		100	75-125			
Surr: 1,2-DCA-d4	19.9		"	20.0		99.5	75-125			
Surr: Dibromofluoromethane	18.5		"	20.0		92.5	75-125			
Surr: Toluene-d8	19.0		"	20.0		95.0	75-125			

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network



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Secor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716.001 Reported:  
 Tualatin, OR 97062 Project Manager: Joe Hunt 12/01/00 09:34

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0110577 - EPA 3510/600 Series

Blank (0110577-BLK1) Prepared: 11/16/00 Analyzed: 11/20/00

Acenaphthene	ND	5.00	ug/l							
Acenaphthylene	ND	5.00	"							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (ghi) perylene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzoic Acid	ND	50.0	"							
Benzyl alcohol	ND	10.0	"							
4-Bromophenyl phenyl ether	ND	5.00	"							
Butyl benzyl phthalate	ND	5.00	"							
4-Chloro-3-methylphenol	ND	5.00	"							
4-Chloroaniline	ND	20.0	"							
Bis(2-chloroethoxy)methane	ND	10.0	"							
Bis(2-chloroethyl)ether	ND	5.00	"							
Bis(2-chloroisopropyl)ether	ND	10.0	"							
2-Chloronaphthalene	ND	5.00	"							
2-Chlorophenol	ND	5.00	"							
4-Chlorophenyl phenyl ether	ND	5.00	"							
Chrysene	ND	5.00	"							
Di-n-butyl phthalate	ND	5.00	"							
Di-n-octyl phthalate	ND	5.00	"							
Dibenzo (a,h) anthracene	ND	5.00	"							
Dibenzofuran	ND	5.00	"							
1,2-Dichlorobenzene	ND	5.00	"							
1,3-Dichlorobenzene	ND	5.00	"							
1,4-Dichlorobenzene	ND	5.00	"							
3,3'-Dichlorobenzidine	ND	5.00	"							
2,4-Dichlorophenol	ND	5.00	"							
Diethyl phthalate	ND	5.00	"							
2,4-Dimethylphenol	ND	10.0	"							
Dimethyl phthalate	ND	5.00	"							
4,6-Dinitro-2-methylphenol	ND	10.0	"							
2,4-Dinitrophenol	ND	25.0	"							
2,4-Dinitrotoluene	ND	5.00	"							

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Lisa Domenighini, Project Manager



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Client: **Cor** Project: **Fort James Specialty Chemicals**  
 P.O. Box 1508 Project Number: **015.08716** Reported: **09/19/00 12:39**  
 Tualatin, OR 97062 Project Manager: **Joe Hunt**

**Semivolatile Organic Compounds per EPA Method 8270C**  
**North Creek Analytical - Portland**


Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**MW3 (P008562-03) Water** Sampled: 08/25/00 Received: 08/29/00

Fluorene	ND	5.00	ug/l	1	EPA 8270C	09/01/00	09/06/00	0090018	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2,4,6-Tribromophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	

Surr: 2-Fluorobiphenyl	94.7 %	26-135
Surr: 2-Fluorophenol	55.2 %	6-124
Surr: Nitrobenzene-d5	96.8 %	23-147
Surr: Phenol-d6	38.5 %	11-130
Surr: p-Terphenyl-d14	94.8 %	38-149
Surr: 2,4,6-Tribromophenol	111 %	19-126

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 Lisa Domenighini, Project Manager



Secor P.O. Box 1508 Tualatin, OR 97062	Project: Fort James Specialty Chemicals Project Number: 015.08716 Project Manager: Joe Hunt	Reported: 09/19/00 12:39
--	---	-----------------------------

**Conventional Chemistry Parameters per APHA/EPA Methods**  
**North Creek Analytical - Portland**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>MW1 (P008562-01) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acidity	17.1	10.0	mg/l	1	EPA 305.2	09/14/00	09/14/00	0090361	I-02
Total Alkalinity	52.8	10.0	"	"	EPA 310.1	09/08/00	09/08/00	0090296	
<b>MW2 (P008562-02) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acidity	15.4	10.0	mg/l	1	EPA 305.2	09/14/00	09/14/00	0090361	I-02
Total Alkalinity	63.1	10.0	"	"	EPA 310.1	09/08/00	09/08/00	0090296	
<b>MW3 (P008562-03) Water</b>						Sampled: 08/25/00 Received: 08/29/00			
Acidity	16.1	10.0	mg/l	1	EPA 305.2	09/14/00	09/14/00	0090361	I-02
Total Alkalinity	89.9	10.0	"	"	EPA 310.1	09/08/00	09/08/00	0090296	

North Creek Analytical - Portland

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For Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716 Reported: 09/19/00 12:39  
 Tualatin, OR 97062 Project Manager: Joe Hunt

**Dissolved Metals by EPA 6000/7000 Series Methods**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**MW1 (P008562-01) Water**

Sampled: 08/25/00 Received: 08/29/00

Arsenic	ND	0.00100	mg/l	1	EPA 6020	09/11/00	09/12/00	0111019	
Barium	0.00362	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.00125	"	"	EPA 7470A	09/15/00	09/18/00	0115024	
Selenium	ND	0.00100	"	"	EPA 6020	09/11/00	09/12/00	0111019	
Silver	ND	0.00100	"	"	"	"	"	"	

**MW2 (P008562-02) Water**

Sampled: 08/25/00 Received: 08/29/00

Arsenic	0.00268	0.00100	mg/l	1	EPA 6020	09/11/00	09/12/00	0111019	
Barium	0.0625	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00344	0.00100	"	"	"	"	"	"	
Lead	0.00367	0.00100	"	"	"	"	"	"	
Mercury	ND	0.00125	"	"	EPA 7470A	09/15/00	09/18/00	0115024	
Selenium	ND	0.00100	"	"	EPA 6020	09/11/00	09/12/00	0111019	
Silver	0.00133	0.00100	"	"	"	"	"	"	

**MW3 (P008562-03) Water**

Sampled: 08/25/00 Received: 08/29/00

Arsenic	ND	0.00100	mg/l	1	EPA 6020	09/11/00	09/12/00	0111019	
Barium	0.00777	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.00100	"	"	EPA 7470A	09/15/00	09/18/00	0115024	
Selenium	ND	0.00100	"	"	EPA 6020	09/11/00	09/12/00	0111019	
Silver	ND	0.00100	"	"	"	"	"	"	

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 541.383.9310 fax 541.382.7588

Secor Project: Fort James Specialty Chemicals  
 P.O. Box 1508 Project Number: 015.08716 Reported:  
 Tualatin, OR 97062 Project Manager: Joe Hunt 09/19/00 12:39

Hydrocarbon Identification per NW EPH Methodology - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0090013 - EPA 3510 Fuels

Blank (0090013-BLK1)		Prepared: 09/01/00 Analyzed: 09/05/00								
Gasoline Range Hydrocarbons	ND	0.125	mg/l							
Diesel Range Hydrocarbons	ND	0.315	"							
Heavy Oil Range Hydrocarbons	ND	0.315	"							
Surr: 1-Chlorooctadecane	DET		"	0.100		97.0	50-150			

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network



Secor  
P.O. Box 1508  
Tualatin, OR 97062

Project: Fort James Specialty Chemicals  
Project Number: 015.08716.001  
Project Manager: Joe Hunt

Reported:  
12/01/00 09:34

### Notes and Definitions

- Q-01 The spike recovery, and/or RPD, for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- wet Sample results reported on a wet weight basis
- RPD Relative Percent Difference

North Creek Analytical - Portland



Lisa Domenighini, Project Manager

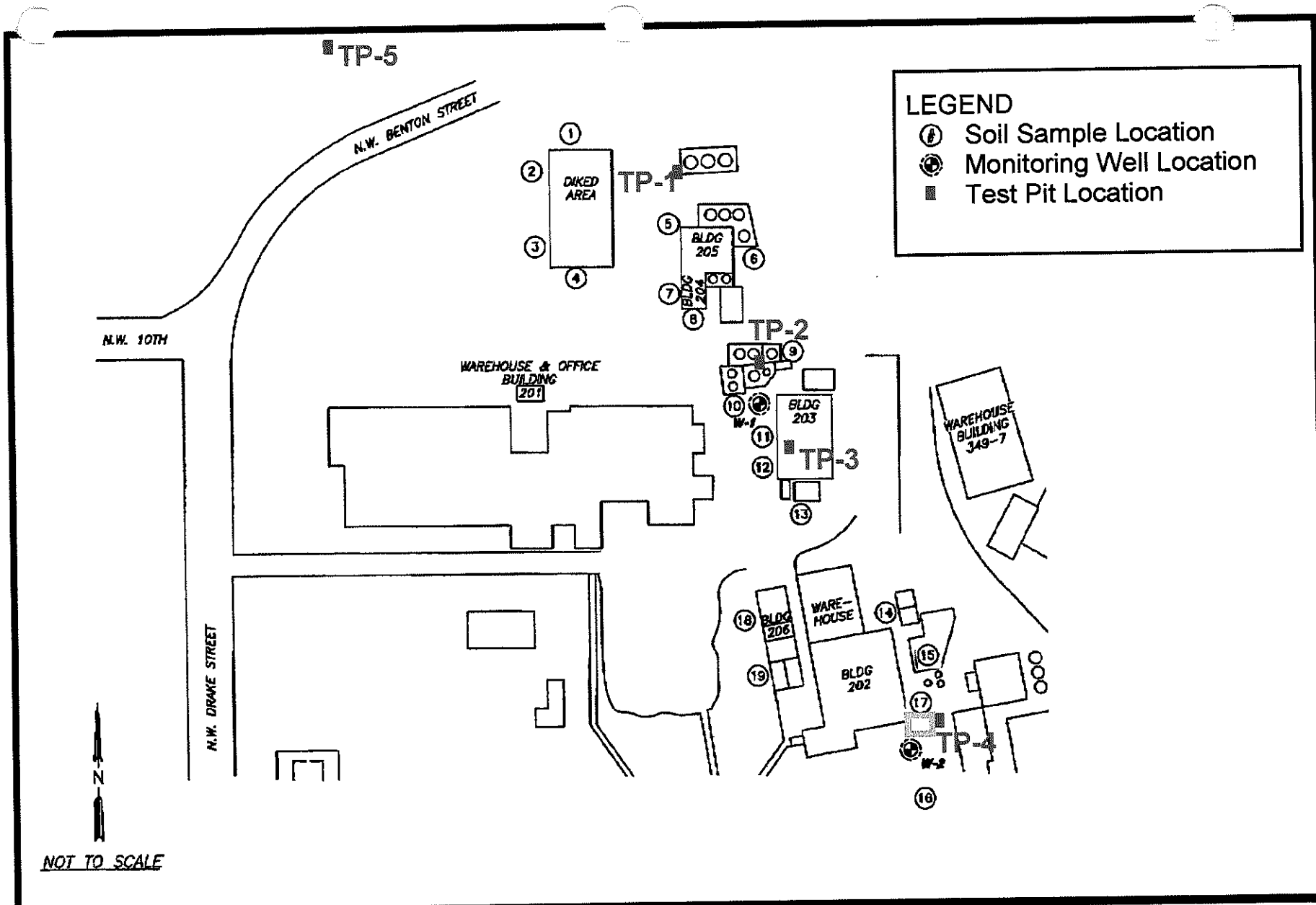
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**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

Page 17 of 17



# 2002 Supplemental Investigation



**Figure 3.1 Soil Sample and Groundwater Sample Locations**



**APPENDIX C: LABORATORY ANALYTICAL REPORT – SOIL  
SAMPLES**



October 4, 2002

Service Request No: K2205605

Chip Hilarides  
Georgia-Pacific West Inc.  
300 West Laurel Street  
Bellingham, WA 98225

**Re: Camas Specialty Chemical**

Dear Chip:

Enclosed are the results of the sample(s) submitted to our laboratory on August 15, 2002. For your reference, these analyses have been assigned our service request number K2205605.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAC standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3291.

Respectfully submitted,

**Columbia Analytical Services, Inc.**

Ed Wallace  
Project Chemist

EW/jcb

Page 1 of 92

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

### Inorganic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.

### Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- B The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL has been elevated due to a matrix interference.
- X See case narrative.
- \* The duplicate analysis not within control limits. See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.

### Organic Data Qualifiers

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results (25% for CLP Pesticides).
- U The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
- i The MRL/MDL has been elevated due to a chromatographic interference.
- X See case narrative.

### Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

00003

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Georgia Pacific Corp.  
Project: Canas Specialty Chemical  
Sample Matrix: Solid

Service Request No.: K2205605  
Date Received: 8/15/02

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier 1 data deliverables. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Ten solid samples were received for analysis at Columbia Analytical Services on 8/15/02. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Hydrocarbon Identification Screen

No anomalies associated with the analysis of these samples were observed.

PCB Aroclors by EPA Method 8082

Continuing Calibration Verification Exceptions:

The primary evaluation criterion was exceeded for the following analytes in Continuing Calibration Verification (CCV) 0903F018: Aroclor 1260. In accordance with CAS standard operating procedures, the alternative evaluation specified in the EPA method was performed using the average percent recovery of all analytes in the verification standard. The standard meets the alternative evaluation criteria.

Volatile Organic Compounds by EPA Method 8260B

Surrogate Exceptions:

The control criteria were exceeded for the following surrogate in sample TP-2 #1 and TP-2 #2 due to matrix interferences: Dibromofluoromethane. A reanalysis was performed, but produced similar results. The results of the original analysis are reported. No further corrective action was required.

Initial Calibration Exceptions:

The primary evaluation criterion was exceeded for the following analytes in Initial Calibration (ICAL) ID CAL1899: Methylene Chloride. In accordance with CAS standard operating procedures, the alternative evaluation specified in the EPA method was performed using the mean Relative Standard Deviation (RSD) of all analytes in the calibration. The result of the mean RSD calculation was 9.2%. The calibration meets the alternative evaluation criteria.

Semivolatile Organic Compounds by EPA Method 8270C

Initial Calibration Exceptions:

The primary evaluation criterion was exceeded for the following analytes in Initial Calibration (ICAL) ID CAL1911: 1,4-Dichlorobenzene, Naphthalene, Hexachlorocyclopentadiene, 2-Fluorobiphenyl, 2,4-Dinitrophenol,

Approved by \_\_\_\_\_

*EAMW* Date 10/2/02

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2,4-Dinitrotoluene, Pentachlorophenol, Phenanthrene, Anthracene, Benzo(k)fluoranthene. In accordance with CAS standard operating procedures, the alternative evaluation specified in the EPA method was performed using the average percent recovery of all analytes in the calibration. The result of the mean RSD calculation was 10.7%. The calibration meets the alternative evaluation criteria.

**Lab Control Sample Exceptions:**

The advisory criterion was exceeded for the following analyte in Laboratory Control Sample (LCS) KWG0206440-3: Aniline. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Approved by \_\_\_\_\_

*EMM* Date *10/2/02*

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chem  
Sample Matrix: Solid

Service Request: K2205605

Total Solids

Prep Method: NONE  
Analysis Method: 160.3M  
Test Notes:

Units: PERCENT  
Basis: WET

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
TP-1 #1	K2205605-001	08/15/2002	08/15/2002	08/26/2002	88.4	
TP-1 #2	K2205605-002	08/15/2002	08/15/2002	08/26/2002	78.5	
TP-2 #1	K2205605-003	08/15/2002	08/15/2002	08/25/2002	82.2	
TP-2 #2	K2205605-004	08/15/2002	08/15/2002	08/25/2002	76.9	
TP-3 #1	K2205605-005	08/15/2002	08/15/2002	08/25/2002	91.6	
TP-3 #2	K2205605-006	08/15/2002	08/15/2002	08/25/2002	79.3	
TP-4 #1	K2205605-007	08/15/2002	08/15/2002	08/25/2002	79.8	
TP-4 #2	K2205605-008	08/15/2002	08/15/2002	08/25/2002	77.5	
TP-5 #1	K2205605-009	08/15/2002	08/15/2002	08/25/2002	86.8	
TP-5 #2	K2205605-010	08/15/2002	08/15/2002	08/25/2002	86.2	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Georgia Pacific  
Project: Camas Specialty Chem  
Sample Matrix: Soil

Service Request: K2205605  
Date Collected: 08/15/2002  
Date Received: 08/15/2002  
Date Analyzed: 08/26/2002

Duplicate Sample Summary  
Total Solids

Prep Method: NONE  
Analysis Method: 160.3M  
Test Notes:

Units: PERCENT  
Basis: WET

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
TP-1 #1	K2205605-001	88.4	88.9	88.7	<1	



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 8/15/02  
**Date Received:** 8/15/02

Hydrocarbon Identification Screen

**Sample Name:** TP-1 #1  
**Lab Code:** K2205605-001  
**Test Notes:**

**Units:** mg/Kg (ppm)  
**Basis:** Dry

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	20	1	8/20/02	8/22/02	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	50	1	8/20/02	8/22/02	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	100	1	8/20/02	8/22/02	D	

D

Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: \_\_\_\_\_

*W*

Date: \_\_\_\_\_

10/2/02

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 8/15/02  
**Date Received:** 8/15/02

Hydrocarbon Identification Screen

**Sample Name:** TP-1 #2  
**Lab Code:** K2205605-002  
**Test Notes:**

**Units:** mg/Kg (ppm)  
**Basis:** Dry

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTFH-HCID	20	1	8/20/02	8/22/02	ND	
Diesel Range Organics	EPA 3550B	NWTFH-HCID	50	1	8/20/02	8/22/02	ND	
Residual Range Organics	EPA 3550B	NWTFH-HCID	100	1	8/20/02	8/22/02	ND	

Approved By: \_\_\_\_\_ Date: 10/2/02

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: 8/15/02  
Date Received: 8/15/02

Hydrocarbon Identification Screen

Sample Name: TP-5 #2  
Lab Code: K2205605-010  
Test Notes:

Units: mg/Kg (ppm)  
Basis: Dry

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	20	1	8/20/02	8/22/02	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	50	1	8/20/02	8/22/02	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	100	1	8/20/02	8/22/02	D	

D

Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

Approved By: \_\_\_\_\_

Date: 10/2/02

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Page No.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

Hydrocarbon Identification Screen

**Sample Name:** Method Blank  
**Lab Code:** K020820-MB  
**Test Notes:**

**Units:** mg/Kg (ppm)  
**Basis:** Dry

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTFH-HCID	20	1	8/20/02	8/21/02	ND	
Diesel Range Organics	EPA 3550B	NWTFH-HCID	50	1	8/20/02	8/21/02	ND	
Residual Range Organics	EPA 3550B	NWTFH-HCID	100	1	8/20/02	8/21/02	ND	

Approved By: \_\_\_\_\_ Date: 10/2/02

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00011

Page No.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 8/15/02  
**Date Received:** 8/15/02  
**Date Extracted:** 8/20/02  
**Date Analyzed:** 8/21 - 22/02

Surrogate Recovery Summary  
Hydrocarbon Identification Screen

**Prep Method:** EPA 3550B  
**Analysis Method:** NWIPH-HCID

**Units:** PERCENT  
**Basis:** NA

Sample Name	Lab Code	Test Notes	P e r c e n t R e c o v e r y		
			o-Terphenyl	4-Bromofluorobenzene	n-Triacontane
TP-1 #1	K2205605-001		73	52	87
TP-1 #2	K2205605-002		68	71	86
TP-5 #2	K2205605-010		65	65	85
Method Blank	K020820-MB		77	71	94

CAS Acceptance Limits: 50-150 20-150 50-150

Approved By: \_\_\_\_\_

*M*

Date: \_\_\_\_\_

10/2/02

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Polychlorinated Biphenyls (PCBs)**

**Sample Name:** TP-4 #1  
**Lab Code:** K2205605-007  
**Extraction Method:** EPA 3545  
**Analysis Method:** 8082

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1221	ND	U	0.25	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1232	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1242	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1248	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1254	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1260	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	91	57-136	09/03/02	Acceptable

Comments: \_\_\_\_\_

**00013**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

**Polychlorinated Biphenyls (PCBs)**

Sample Name: TP-4 #2  
 Lab Code: K2205605-008  
 Extraction Method: EPA 3545  
 Analysis Method: 8082

Units: mg/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1221	ND	U	0.26	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1232	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1242	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1248	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1254	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1260	ND	U	0.13	1	08/22/02	09/03/02	KWG0206219	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	93	57-136	09/03/02	Acceptable

Comments: \_\_\_\_\_

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Polychlorinated Biphenyls (PCBs)**

**Sample Name:** TP-5 #2  
**Lab Code:** K2205605-010  
**Extraction Method:** EPA 3545  
**Analysis Method:** 8082

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.12	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1221	ND	U	0.24	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1232	ND	U	0.12	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1242	ND	U	0.12	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1248	ND	U	0.12	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1254	ND	U	0.12	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1260	ND	U	0.12	1	08/22/02	09/03/02	KWG0206219	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	96	57-136	09/03/02	Acceptable

**Comments:** \_\_\_\_\_



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Soil

Service Request: K2205605  
 Date Collected: NA  
 Date Received: NA

**Polychlorinated Biphenyls (PCBs)**

Sample Name: Method Blank  
 Lab Code: KWG0206219-4  
 Extraction Method: EPA 3545  
 Analysis Method: 8082

Units: mg/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Aroclor 1016	ND	U	0.10	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1221	ND	U	0.20	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1232	ND	U	0.10	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1242	ND	U	0.10	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1248	ND	U	0.10	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1254	ND	U	0.10	1	08/22/02	09/03/02	KWG0206219	
Aroclor 1260	ND	U	0.10	1	08/22/02	09/03/02	KWG0206219	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Decachlorobiphenyl	95	57-136	09/03/02	Acceptable

Comments: \_\_\_\_\_

**00016**

Page 1 of 1

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-2 #1  
**Lab Code:** K2205605-003  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	13	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCB)	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-2 #1  
**Lab Code:** K2205605-003  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromochane (EDB)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
Chlorobenzene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,1,2,2-Tetrachloroethane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichlorobenzene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,4-Dichlorobenzene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichlorobenzene	ND	U	6.1	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-2 #1  
**Lab Code:** K2205605-003

**Units:** ug/Kg  
**Basis:** Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	55	84-121	08/21/02	Outside Control Limits
Toluene-d8	93	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	95	80-123	08/21/02	Acceptable

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/21/2002  
**Date Analyzed:** 08/21/2002

Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds

**Sample Name:** TP-2 #1  
**Lab Code:** K2205605-003  
**File ID:** J:\MS05\DATA\082102\0821F012.D  
**Instrument ID:** MS05

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B  
**Sample Amount:** 5.01 g  
**% Solids:** 82.2  
**Dilution Factor:** 1

**Extraction Lot:** KWG0206248

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

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**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-2 #2  
**Lab Code:** K2205605-004  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	13	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCE)	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	

Comments:



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-2 #2  
**Lab Code:** K2205605-004  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromoethane (EDB)	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
Chlorobenzene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,1,2,2-Tetrachloroethane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichlorobenzene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,4-Dichlorobenzene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichlorobenzene	ND	U	6.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

Volatile Organic Compounds

**Sample Name:** TP-2 #2  
**Lab Code:** K2205605-004

**Units:** ug/Kg  
**Basis:** Dry

Surrogate Name	% Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	78	84-121	08/21/02	Outside Control Limits
Toluene-d8	92	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	93	80-123	08/21/02	Acceptable

Comments:



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: 08/15/2002  
Date Received: 08/15/2002  
Date Extracted: 08/21/2002  
Date Analyzed: 08/21/2002

Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds

Sample Name: TP-2 #2  
Lab Code: K2205605-004  
File ID: J:\MS05\DATA\082102\0821F013.D  
Instrument ID: MS05  
Extraction Method: EPA 5030A  
Analysis Method: 8260B  
Sample Amount: 5.13 g  
% Solids: 76.9  
Dilution Factor: 1

Units: ug/Kg  
Basis: Dry  
Level: Low

Extraction Lot: KWG0206248

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

## Volatile Organic Compounds

Sample Name: TP-3 #1  
 Lab Code: K2205605-005  
 Extraction Method: EPA 5030A  
 Analysis Method: 8260B

Units: ug/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	11	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCE)	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-3 #1  
**Lab Code:** K2205605-005  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	50		5.4	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromoethane (EDB)	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
Chlorobenzene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,1,2,2-Tetrachloroethane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichlorobenzene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,4-Dichlorobenzene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichlorobenzene	ND	U	5.4	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	22	1	08/21/02	08/21/02	KWG0206248	

Comments:

**00026**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

Volatile Organic Compounds

**Sample Name:** TP-3 #1  
**Lab Code:** K2205605-005

**Units:** ug/Kg  
**Basis:** Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	84-121	08/21/02	Acceptable
Toluene-d8	92	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	90	80-123	08/21/02	Acceptable

Comments:

00027

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/21/2002  
**Date Analyzed:** 08/21/2002

**Tentatively Identified Compounds (TIC)**  
**Volatile Organic Compounds**

**Sample Name:** TP-3 #1  
**Lab Code:** K2205605-005  
**File ID:** J:\MS05\DATA\082102\0821F014.D  
**Instrument ID:** MS05

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Extraction Lot:** KWC0206248

**Sample Amount:** 5.07 g  
**% Solids:** 91.6  
**Dilution Factor:** 1

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

00028

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-3 #2  
**Lab Code:** K2205605-006  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	13	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCB)	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	

Comments:

00029



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-3 #2  
**Lab Code:** K2205605-006  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	13		6.3	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromoethane (EDB)	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
Chlorobenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,1,2,2-Tetrachloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichlorobenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,4-Dichlorobenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichlorobenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	26	1	08/21/02	08/21/02	KWG0206248	

Comments:

**00030**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: 08/15/2002  
Date Received: 08/15/2002

Volatile Organic Compounds

Sample Name: TP-3 #2  
Lab Code: K2205605-006

Units: ug/Kg  
Basis: Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	84-121	08/21/02	Acceptable
Toluene-d8	95	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	93	80-123	08/21/02	Acceptable

Comments:



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/21/2002  
**Date Analyzed:** 08/21/2002

**Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds**

**Sample Name:** TP-3 #2  
**Lab Code:** K2205605-006  
**File ID:** J:\MS05\DATA\082102\0821F015.D  
**Instrument ID:** MS05  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B  
**Sample Amount:** 5.03 g  
**% Solids:** 79.3  
**Dilution Factor:** 1

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWG0206248

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-4 #1  
**Lab Code:** K2205605-007  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	13	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCE)	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Tetrachloroethene (PCE)	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

## Volatile Organic Compounds

Sample Name: TP-4 #1  
 Lab Code: K2205605-007  
 Extraction Method: EPA 5030A  
 Analysis Method: 8260B

Units: ug/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
<b>Chlorobenzene</b>	<b>54</b>		6.2	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,1,2,2-Tetrachloroethane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	6.2	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
<b>1,3-Dichlorobenzene</b>	<b>33</b>		6.2	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
<b>1,4-Dichlorobenzene</b>	<b>130</b>		6.2	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	

Comments:

00034

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

Volatile Organic Compounds

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	84-121	08/21/02	Acceptable
Toluene-d8	93	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	93	80-123	08/21/02	Acceptable

Comments: \_\_\_\_\_

00035

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-4 #1  
**Lab Code:** K2205605-007  
**Extraction Method:** EPA 5035/5030B  
**Analysis Method:** 8260B

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Med

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichlorobenzene	29		0.32	1	08/25/02	08/29/02	KWG0206367	

Surrogate Name	%Rec	Control Limits	Note

Comments: \_\_\_\_\_

**00036**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/21/2002  
**Date Analyzed:** 08/21/2002

**Tentatively Identified Compounds (TIC)**  
**Volatile Organic Compounds**

**Sample Name:** TP-4 #1  
**Lab Code:** K2205605-007  
**File ID:** J:\MS05\DATA\082102\0821F016.D  
**Instrument ID:** MS05

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Extraction Lot:** KWG0206248

**Sample Amount:** 5.09 g  
**% Solids:** 79.8  
**Dilution Factor:** 1

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

## Volatile Organic Compounds

Sample Name: TP-4 #2  
 Lab Code: K2205605-008  
 Extraction Method: EPA 5030A  
 Analysis Method: 8260B

Units: ug/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	13	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCE)	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Tetrachloroethene (PCE)	9.4		6.3	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	

Comments:

00038



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-4 #2  
**Lab Code:** K2205605-008  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
<b>Chlorobenzene</b>	<b>22</b>		6.3	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	6.3	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
<b>1,3-Dichlorobenzene</b>	<b>17</b>		6.3	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
<b>1,4-Dichlorobenzene</b>	<b>100</b>		6.3	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	25	1	08/21/02	08/21/02	KWG0206248	

Comments:

**00039**



COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

Volatile Organic Compounds

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	84-121	08/21/02	Acceptable
Toluene-d8	91	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	91	80-123	08/21/02	Acceptable

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-4 #2  
**Lab Code:** K2205605-008  
**Extraction Method:** EPA 5035/5030B  
**Analysis Method:** 8260B

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Med

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dichlorobenzene	14	0.13	1	08/25/02	08/29/02	KWG0206367	

Surrogate Name	%Rec	Control Limits	Note

Comments: \_\_\_\_\_

**00041**



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Chloromethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Vinyl Chloride	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Bromomethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Chloroethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Trichlorofluoromethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Acetone	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,1-Dichloroethene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Carbon Disulfide	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Methylene Chloride	ND	U	12	1	08/23/02	08/23/02	KWG0206315	
trans-1,2-Dichloroethene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,1-Dichloroethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
2-Butanone (MEK)	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
2,2-Dichloropropane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
cis-1,2-Dichloroethene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Chloroform	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Bromochloromethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,1,1-Trichloroethane (TCA)	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,1-Dichloropropene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Carbon Tetrachloride	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,2-Dichloroethane (EDC)	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Benzene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Trichloroethene (TCE)	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,2-Dichloropropane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Bromodichloromethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Dibromomethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
2-Hexanone	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
cis-1,3-Dichloropropene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Toluene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
trans-1,3-Dichloropropene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,1,2-Trichloroethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
4-Methyl-2-pentanone (MIBK)	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,3-Dichloropropane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	

Comments:

**00043**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

## Volatile Organic Compounds

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Dibromochloromethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,2-Dibromoethane (EDB)	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
Chlorobenzene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,1,1,2-Tetrachloroethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Ethylbenzene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
m,p-Xylenes	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
o-Xylene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Styrene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Bromoform	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Isopropylbenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,1,2,2-Tetrachloroethane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,2,3-Trichloropropane	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
Bromobenzene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
n-Propylbenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
2-Chlorotoluene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
4-Chlorotoluene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,3,5-Trimethylbenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
tert-Butylbenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,2,4-Trimethylbenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
sec-Butylbenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,3-Dichlorobenzene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
4-Isopropyltoluene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,4-Dichlorobenzene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
n-Butylbenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,2-Dichlorobenzene	ND	U	5.8	1	08/23/02	08/23/02	KWG0206315	
1,2-Dibromo-3-chloropropane	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,2,4-Trichlorobenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
1,2,3-Trichlorobenzene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
Naphthalene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	
Hexachlorobutadiene	ND	U	23	1	08/23/02	08/23/02	KWG0206315	

Comments:

00044

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

Volatile Organic Compounds

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009

**Units:** ug/Kg  
**Basis:** Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	84-121	08/23/02	Acceptable
Toluene-d8	95	80-125	08/23/02	Acceptable
4-Bromofluorobenzene	92	80-123	08/23/02	Acceptable

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/23/2002  
**Date Analyzed:** 08/23/2002

Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009  
**File ID:** J:\MS05\DATA\082302\0823F010.D  
**Instrument ID:** MS05  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B  
**Sample Amount:** 5.03 g  
**% Solids:** 86.8  
**Dilution Factor:** 1

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWC0206315

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

00046

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Volatile Organic Compounds**

**Sample Name:** TP-5 #2  
**Lab Code:** K2205605-010  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ng/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	12	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCE)	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	

Comments:



## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

## Volatile Organic Compounds

Sample Name: TP-5 #2  
 Lab Code: K2205605-010  
 Extraction Method: EPA 5030A  
 Analysis Method: 8260B

Units: ug/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromoethane (EDB)	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
Chlorobenzene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,1,2,2-Tetrachloroethane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichlorobenzene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,4-Dichlorobenzene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichlorobenzene	ND	U	5.8	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	23	1	08/21/02	08/21/02	KWG0206248	

Comments:

00048

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

Volatile Organic Compounds

**Sample Name:** TP-5 #2  
**Lab Code:** K2205605-010

**Units:** ug/Kg  
**Basis:** Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	84-121	08/21/02	Acceptable
Toluene-d8	93	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	90	80-123	08/21/02	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/21/2002  
**Date Analyzed:** 08/21/2002

**Tentatively Identified Compounds (TIC)**  
**Volatile Organic Compounds**

**Sample Name:** TP-5 #2  
**Lab Code:** K2205605-010  
**File ID:** J:\MS05\DATA\082102\0821F019.D  
**Instrument ID:** MS05

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B  
**Sample Amount:** 5.08 g  
**% Solids:** 86.2  
**Dilution Factor:** 1

**Extraction Lot:** KWG0206248

CAS No.	Analyte Name	RT	Result Q	Note
13466-78-9	3-Carene	16.92	7.0 IN	

00050

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206248-4  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Chloromethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Vinyl Chloride	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Bromomethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Chloroethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Trichlorofluoromethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Acetone	ND	U	50	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Carbon Disulfide	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Methylene Chloride	ND	U	10	1	08/21/02	08/21/02	KWG0206248	
trans-1,2-Dichloroethene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloroethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
2-Butanone (MEK)	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
2,2-Dichloropropane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
cis-1,2-Dichloroethene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Chloroform	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Bromochloromethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,1-Dichloropropene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Carbon Tetrachloride	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloroethane (EDC)	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Benzene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Trichloroethene (TCE)	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichloropropane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Bromodichloromethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Dibromomethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
2-Hexanone	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
cis-1,3-Dichloropropene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Toluene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
trans-1,3-Dichloropropene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,1,2-Trichloroethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichloropropane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	

Comments:

**00051**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206248-4  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Dibromochloromethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromoethane (EDB)	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
Chlorobenzene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Ethylbenzene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
m,p-Xylenes	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
o-Xylene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Styrene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Bromoform	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Isopropylbenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,1,2,2-Tetrachloroethane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichloropropane	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
Bromobenzene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
n-Propylbenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
2-Chlorotoluene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
4-Chlorotoluene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,3,5-Trimethylbenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
tert-Butylbenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trimethylbenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
sec-Butylbenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,3-Dichlorobenzene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
4-Isopropyltoluene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,4-Dichlorobenzene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
n-Butylbenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,2-Dichlorobenzene	ND	U	5.0	1	08/21/02	08/21/02	KWG0206248	
1,2-Dibromo-3-chloropropane	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,2,4-Trichlorobenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
1,2,3-Trichlorobenzene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
Naphthalene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	
Hexachlorobutadiene	ND	U	20	1	08/21/02	08/21/02	KWG0206248	

Comments:

00052

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206248-4

**Units:** ug/Kg  
**Basis:** Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	90	84-121	08/21/02	Acceptable
Toluene-d8	94	80-125	08/21/02	Acceptable
4-Bromofluorobenzene	93	80-123	08/21/02	Acceptable

Comments: \_\_\_\_\_

**00053**

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Soil

Service Request: K2205605  
Date Collected: NA  
Date Received: NA  
Date Extracted: 08/21/2002  
Date Analyzed: 08/21/2002

Tentatively Identified Compounds (TIC)  
Volatile Organic Compounds

Sample Name: Method Blank  
Lab Code: KWG0206248-4  
File ID: J:\MS05\DATA\082102\08211\011.D  
Instrument ID: MS05

Units: ug/Kg  
Basis: Dry  
Level: Low

Extraction Method: EPA 5030A  
Analysis Method: 8260B

Extraction Lot: KWG0206248

Sample Amount: 5.0 g  
% Solids: NA  
Dilution Factor: 1

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

00054

Page 1 of 1



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206315-3  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Chloromethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Vinyl Chloride	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Bromomethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Chloroethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Trichlorofluoromethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Acetone	ND	U	50	1	08/23/02	08/23/02	KWG0206315	
1,1-Dichloroethene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Carbon Disulfide	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Methylene Chloride	ND	U	10	1	08/23/02	08/23/02	KWG0206315	
trans-1,2-Dichloroethene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,1-Dichloroethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
2-Butanone (MEK)	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
2,2-Dichloropropane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
cis-1,2-Dichloroethene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Chloroform	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Bromochloromethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,1,1-Trichloroethane (TCA)	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,1-Dichloropropene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Carbon Tetrachloride	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,2-Dichloroethane (EDC)	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Benzene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Trichloroethene (TCE)	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,2-Dichloropropane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Bromodichloromethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Dibromomethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
2-Hexanone	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
cis-1,3-Dichloropropene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Toluene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
trans-1,3-Dichloropropene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,1,2-Trichloroethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
4-Methyl-2-pentanone (MIBK)	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,3-Dichloropropane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	

Comments:

00055



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206315-3  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Dibromochloromethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,2-Dibromoethane (EDB)	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
Chlorobenzene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Ethylbenzene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
m,p-Xylenes	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
o-Xylene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Styrene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Bromoform	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Isopropylbenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,1,1,2-Tetrachloroethane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,2,3-Trichloropropane	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
Bromobenzene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
n-Propylbenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
2-Chlorotoluene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
4-Chlorotoluene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,3,5-Trimethylbenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
tert-Butylbenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,2,4-Trimethylbenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
sec-Butylbenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,3-Dichlorobenzene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
4-Isopropyltoluene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,4-Dichlorobenzene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
n-Butylbenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,2-Dichlorobenzene	ND	U	5.0	1	08/23/02	08/23/02	KWG0206315	
1,2-Dibromo-3-chloropropane	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,2,4-Trichlorobenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
1,2,3-Trichlorobenzene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
Naphthalene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	
Hexachlorobutadiene	ND	U	20	1	08/23/02	08/23/02	KWG0206315	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Soil

Service Request: K2205605  
Date Collected: NA  
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank  
Lab Code: KWG0206315-3

Units: ug/Kg  
Basis: Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	90	84-121	08/23/02	Acceptable
Toluene-d8	95	80-125	08/23/02	Acceptable
4-Bromofluorobenzene	94	80-123	08/23/02	Acceptable

Comments:

00057

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** 08/23/2002  
**Date Analyzed:** 08/23/2002

**Tentatively Identified Compounds (TIC)**  
**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206315-3  
**File ID:** J:\MS05\DATA\082302\0823F009.D  
**Instrument ID:** MS05  
**Extraction Method:** EPA 5030A  
**Analysis Method:** 8260B  
**Sample Amount:** 5.0 g  
**% Solids:** NA  
**Dilution Factor:** 1

**Units:** ug/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWG0206315

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206367-4  
**Extraction Method:** EPA 5035/5030B  
**Analysis Method:** 8260B

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Med

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Chloromethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Vinyl Chloride	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Bromomethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Chloroethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Trichlorofluoromethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Acetone	ND	U	2.0	1	08/25/02	08/26/02	KWG0206367	
1,1-Dichloroethene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Carbon Disulfide	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Methylene Chloride	ND	U	0.10	1	08/25/02	08/26/02	KWG0206367	
trans-1,2-Dichloroethene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,1-Dichloroethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
2-Butanone (MEK)	ND	U	2.0	1	08/25/02	08/26/02	KWG0206367	
2,2-Dichloropropane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
cis-1,2-Dichloroethene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Chloroform	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Bromochloromethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,1,1-Trichloroethane (TCA)	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,1-Dichloropropene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Carbon Tetrachloride	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,2-Dichloroethane (EDC)	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Benzene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Trichloroethene (TCE)	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,2-Dichloropropane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Bromodichloromethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Dibromomethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
2-Hexanone	ND	U	2.0	1	08/25/02	08/26/02	KWG0206367	
cis-1,3-Dichloropropene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Toluene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
trans-1,3-Dichloropropene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,1,2-Trichloroethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
4-Methyl-2-pentanone (MIBK)	ND	U	2.0	1	08/25/02	08/26/02	KWG0206367	
1,3-Dichloropropane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	

Comments:

**00059**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206367-4  
**Extraction Method:** EPA 5035/5030B  
**Analysis Method:** 8260B

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Med

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Tetrachloroethene (PCE)	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Dibromochloromethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,2-Dibromoethane (EDB)	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
Chlorobenzene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,1,1,2-Tetrachloroethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Ethylbenzene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
m,p-Xylenes	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
o-Xylene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Styrene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Bromoform	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Isopropylbenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,1,2,2-Tetrachloroethane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,2,3-Trichloropropane	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
Bromobenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
n-Propylbenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
2-Chlorotoluene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
4-Chlorotoluene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,3,5-Trimethylbenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
tert-Butylbenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,2,4-Trimethylbenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
sec-Butylbenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,3-Dichlorobenzene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
4-Isopropyltoluene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,4-Dichlorobenzene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
n-Butylbenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,2-Dichlorobenzene	ND	U	0.050	1	08/25/02	08/26/02	KWG0206367	
1,2-Dibromo-3-chloropropane	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,2,4-Trichlorobenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
1,2,3-Trichlorobenzene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
Naphthalene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	
Hexachlorobutadiene	ND	U	0.20	1	08/25/02	08/26/02	KWG0206367	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

Volatile Organic Compounds

**Sample Name:** Method Blank  
**Lab Code:** KWG0206367-4

**Units:** mg/Kg  
**Basis:** Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	41-152	08/26/02	Acceptable
Toluene-d8	94	32-166	08/26/02	Acceptable
4-Bromofluorobenzene	90	40-153	08/26/02	Acceptable

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Soil

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** 08/25/2002  
**Date Analyzed:** 08/26/2002

**Tentatively Identified Compounds (TIC)**  
**Volatile Organic Compounds**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206367-4  
**File ID:** J:\MS04\DATA\082602\0826F010.D  
**Instrument ID:** MS04

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Med

**Extraction Method:** EPA 5035/5030B  
**Analysis Method:** 8260B

**Extraction Lot:** KWG0206367

**Sample Amount:** 5 g  
**% Solids:** NA  
**Dilution Factor:** 1

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-2 #1  
**Lab Code:** K2205605-003  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
Aniline	ND	U	1.3	1	08/27/02	09/03/02	KWG0206440	
Bis(2-chloroethyl) Ether	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Phenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2-Chlorophenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
1,3-Dichlorobenzene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
1,4-Dichlorobenzene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
1,2-Dichlorobenzene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
<b>Benzyl Alcohol</b>	<b>2.8</b>		0.41	1	08/27/02	09/03/02	KWG0206440	
Bis(2-chloroisopropyl) Ether	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2-Methylphenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Hexachloroethane	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
N-Nitrosodi-n-propylamine	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
4-Methylphenol†	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Nitrobenzene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Isophorone	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2-Nitrophenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2,4-Dimethylphenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Bis(2-chloroethoxy)methane	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2,4-Dichlorophenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Benzoic Acid	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
1,2,4-Trichlorobenzene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Naphthalene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
4-Chloroaniline	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Hexachlorobutadiene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
4-Chloro-3-methylphenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2-Methylnaphthalene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Hexachlorocyclopentadiene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2,4,6-Trichlorophenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2,4,5-Trichlorophenol	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2-Chloronaphthalene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2-Nitroaniline	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
Acenaphthylene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	

Comments:

**00063**



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-2 #1  
**Lab Code:** K2205605-003  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
2,6-Dinitrotoluene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Acenaphthene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
3-Nitroaniline	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
2,4-Dinitrophenol	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
Dibenzofuran	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
4-Nitrophenol	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
2,4-Dinitrotoluene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Fluorene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
4-Chlorophenyl Phenyl Ether	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Diethyl Phthalate	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
4-Nitroaniline	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
2-Methyl-4,6-dinitrophenol	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
N-Nitrosodiphenylamine	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
4-Bromophenyl Phenyl Ether	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Hexachlorobenzene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Pentachlorophenol	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
Phenanthrene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Anthracene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Di-n-butyl Phthalate	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Fluoranthene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Pyrene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Butyl Benzyl Phthalate	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
3,3'-Dichlorobenzidine	ND	U	2.5	1	08/27/02	09/03/02	KWG0206440	
Benz(a)anthracene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Chrysene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Bis(2-ethylhexyl) Phthalate	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Di-n-octyl Phthalate	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Benzo(b)fluoranthene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Benzo(k)fluoranthene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Benzo(a)pyrene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Indeno(1,2,3-cd)pyrene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	
Dibenz(a,h)anthracene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-2 #1  
**Lab Code:** K2205605-003  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Bcnzo(g,h,i)perylene	ND	U	0.41	1	08/27/02	09/03/02	KWG0206440	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	65	38-89	09/03/02	Acceptable
Phenol-d6	70	29-111	09/03/02	Acceptable
Nitrobenzene-d5	77	46-103	09/03/02	Acceptable
2-Fluorobiphenyl	74	53-106	09/03/02	Acceptable
2,4,6-Tribromophenol	50	48-111	09/03/02	Acceptable
Terphenyl-d14	88	33-139	09/03/02	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments: \_\_\_\_\_

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: 08/15/2002  
Date Received: 08/15/2002  
Date Extracted: 08/27/2002  
Date Analyzed: 09/03/2002

Tentatively Identified Compounds (TIC)  
Semi-Volatile Organic Compounds by GC/MS

Sample Name: TP-2 #1  
Lab Code: K2205605-003  
File ID: J:\MS08\DATA\090302\0903F004.D  
Instrument ID: MS08  
Extraction Method: EPA 3541  
Analysis Method: 8270C  
Sample Amount: 30.00 g  
% Solids: 82.2  
Dilution Factor: 1

Units: mg/Kg  
Basis: Dry  
Level: Low

Extraction Lot: KWG0206440

CAS No.	Analyte Name	RT	Result Q	Note
100-52-7	Benzaldehyde	8.23	0.50 JN	
111-06-8	Hexadecanoic acid, butyl ester	23.31	0.64 JN	
123-95-5	Octadecanoic acid, butyl ester	24.60	0.51 JN	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-2 #2  
**Lab Code:** K2205605-004  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
Aniline	ND	U	1.4	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethyl) Ether	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Phenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2-Chlorophenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
1,3-Dichlorobenzene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
1,4-Dichlorobenzene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
1,2-Dichlorobenzene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Benzyl Alcohol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroisopropyl) Ether	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2-Methylphenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Hexachloroethane	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodi-n-propylamine	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
4-Methylphenol†	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Nitrobenzene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Isophorone	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2-Nitrophenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2,4-Dimethylphenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethoxy)methane	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2,4-Dichlorophenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Benzoic Acid	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
1,2,4-Trichlorobenzene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Naphthalene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
4-Chloroaniline	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobutadiene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
4-Chloro-3-methylphenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2-Methylnaphthalene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Hexachlorocyclopentadiene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2,4,6-Trichlorophenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2,4,5-Trichlorophenol	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2-Chloronaphthalene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2-Nitroaniline	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
Acenaphthylene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	

Comments:

**00067**

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: TP-2 #2  
 Lab Code: K2205605-004  
 Extraction Method: EPA 3541  
 Analysis Method: 8270C

Units: mg/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
2,6-Dinitrotoluene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Acenaphthene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
3-Nitroaniline	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrophenol	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
Dibenzofuran	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
4-Nitrophenol	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrotoluene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Fluorene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
4-Chlorophenyl Phenyl Ether	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Diethyl Phthalate	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
4-Nitroaniline	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
2-Methyl-4,6-dinitrophenol	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodiphenylamine	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
4-Bromophenyl Phenyl Ether	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobenzene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Pentachlorophenol	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
Phenanthrene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Anthracene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Di-n-butyl Phthalate	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Fluoranthene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Pyrene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Butyl Benzyl Phthalate	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
3,3'-Dichlorobenzidine	ND	U	2.7	1	08/27/02	09/02/02	KWG0206440	
Benzo(a)anthracene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Chrysene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Bis(2-ethylhexyl) Phthalate	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Di-n-octyl Phthalate	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Benzo(b)fluoranthene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Benzo(k)fluoranthene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Benzo(a)pyrene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Indeno(1,2,3-cd)pyrene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	
Dibenz(a,h)anthracene	ND	U	0.43	1	08/27/02	09/02/02	KWG0206440	

Comments:

00068

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-2 #2  
**Lab Code:** K2205605-004  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND U	0.43	1	08/27/02	09/02/02	KWG0206440	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	65	38-89	09/02/02	Acceptable
Phenol-d6	70	29-111	09/02/02	Acceptable
Nitrobenzene-d5	72	46-103	09/02/02	Acceptable
2-Fluorobiphenyl	71	53-106	09/02/02	Acceptable
2,4,6-Tribromophenol	67	48-111	09/02/02	Acceptable
Terphenyl-d14	84	33-139	09/02/02	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: 08/15/2002  
Date Received: 08/15/2002  
Date Extracted: 08/27/2002  
Date Analyzed: 09/02/2002

Tentatively Identified Compounds (TIC)  
Semi-Volatile Organic Compounds by GC/MS

Sample Name: TP-2 #2  
Lab Code: K2205605-004  
File ID: J:\MS08\DATA\090202\0902F006.D  
Instrument ID: MS08  
Extraction Method: BPA 3541  
Analysis Method: 8270C  
Sample Amount: 30.00 g  
% Solids: 76.9  
Dilution Factor: 1

Units: mg/Kg  
Basis: Dry  
Level: Low

Extraction Lot: KWG0206440

CAS No.	Analyte Name	RT	Result Q	Note
-	Unknown Amide	24.54	0.23 J	

00070



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-3 #1  
**Lab Code:** K2205605-005  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
Aniline	ND	U	1.1	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethyl) Ether	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Phenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2-Chlorophenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
1,3-Dichlorobenzene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
1,4-Dichlorobenzene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
1,2-Dichlorobenzene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Benzyl Alcohol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroisopropyl) Ether	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2-Methylphenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Hexachloroethane	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodi-n-propylamine	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
4-Methylphenol†	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Nitrobenzene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Isophorone	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2-Nitrophenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2,4-Dimethylphenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethoxy)methane	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2,4-Dichlorophenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Benzoic Acid	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
1,2,4-Trichlorobenzene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Naphthalene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
4-Chloroaniline	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobutadiene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
4-Chloro-3-methylphenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2-Methylnaphthalene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Hexachlorocyclopentadiene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2,4,6-Trichlorophenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2,4,5-Trichlorophenol	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2-Chloronaphthalene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2-Nitroaniline	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
Acenaphthylene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	

Comments: \_\_\_\_\_

**00071**

Page 1 of 3



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-3 #1  
**Lab Code:** K2205605-005  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
2,6-Dinitrotoluene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Acenaphthene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
3-Nitroaniline	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrophenol	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
Dibenzofuran	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
4-Nitrophenol	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrotoluene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Fluorene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
4-Chlorophenyl Phenyl Ether	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Diethyl Phthalate	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
4-Nitroaniline	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
2-Methyl-4,6-dinitrophenol	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodiphenylamine	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
4-Bromophenyl Phenyl Ether	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobenzene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Pentachlorophenol	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
Phenanthrene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Anthracene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Di-n-butyl Phthalate	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Fluoranthene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Pyrene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Butyl Benzyl Phthalate	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
3,3'-Dichlorobenzidine	ND	U	2.2	1	08/27/02	09/02/02	KWG0206440	
Benz(a)anthracene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Chrysene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Bis(2-ethylhexyl) Phthalate	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Di-n-octyl Phthalate	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Benzo(b)fluoranthene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Benzo(k)fluoranthene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Benzo(a)pyrene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Indeno(1,2,3-cd)pyrene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	
Dibenz(a,h)anthracene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	

Comments: \_\_\_\_\_

00072

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Carnas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-3 #1  
**Lab Code:** K2205605-005  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.37	1	08/27/02	09/02/02	KWG0206440	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	62	38-89	09/02/02	Acceptable
Phenol-d6	67	29-111	09/02/02	Acceptable
Nitrobenzene-d5	75	46-103	09/02/02	Acceptable
2-Fluorobiphenyl	72	53-106	09/02/02	Acceptable
2,4,6-Tribromophenol	75	48-111	09/02/02	Acceptable
Terphenyl-d14	84	33-139	09/02/02	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: 08/15/2002  
Date Received: 08/15/2002  
Date Extracted: 08/27/2002  
Date Analyzed: 09/02/2002

Tentatively Identified Compounds (TIC)  
Semi-Volatile Organic Compounds by GC/MS

Sample Name: TP-3 #1  
Lab Code: K2205605-005  
File ID: J:\MS08\DATA\090202\0902F010.D  
Instrument ID: MS08  
Extraction Method: EPA 3541  
Analysis Method: 8270C  
Sample Amount: 30.01 g  
% Solids: 91.6  
Dilution Factor: 1

Units: mg/Kg  
Basis: Dry  
Level: Low

Extraction Lot: KWG0206440

CAS No.	Analyte Name	RT	Result Q	Note
-	Unknown Organic Acid	23.31	0.46 J	
123-95-5	Octadecanoic acid, butyl ester	24.60	0.34 JN	
-	Unknown Alkane	24.66	0.16 J	
-	Unknown Alkane	26.24	0.15 J	

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-3 #2  
**Lab Code:** K2205605-006  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
Aniline	ND	U	1.3	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethyl) Ether	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Phenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2-Chlorophenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
1,3-Dichlorobenzene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
1,4-Dichlorobenzene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
1,2-Dichlorobenzene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Benzyl Alcohol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroisopropyl) Ether	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2-Methylphenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Hexachloroethane	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodi-n-propylamine	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
4-Methylphenol†	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Nitrobenzene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Isophorone	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2-Nitrophenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2,4-Dimethylphenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethoxy)methane	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2,4-Dichlorophenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Benzoic Acid	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
1,2,4-Trichlorobenzene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Naphthalene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
4-Chloroaniline	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobutadiene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
4-Chloro-3-methylphenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2-Methylnaphthalene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Hexachlorocyclopentadiene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2,4,6-Trichlorophenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2,4,5-Trichlorophenol	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2-Chloronaphthalene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2-Nitroaniline	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
Acenaphthylene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	

Comments:

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: TP-3 #2  
 Lab Code: K2205605-006  
 Extraction Method: EPA 3541  
 Analysis Method: 8270C

Units: mg/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
2,6-Dinitrotoluene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Acenaphthene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
3-Nitroaniline	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrophenol	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
Dibenzofuran	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
4-Nitrophenol	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrotoluene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Fluorene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
4-Chlorophenyl Phenyl Ether	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Diethyl Phthalate	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
4-Nitroaniline	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
2-Methyl-4,6-dinitrophenol	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodiphenylamine	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
4-Bromophenyl Phenyl Ether	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobenzene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Pentachlorophenol	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
Phenanthrene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Anthracene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Di-n-butyl Phthalate	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Fluoranthene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Pyrene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Butyl Benzyl Phthalate	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
3,3'-Dichlorobenzidine	ND	U	2.6	1	08/27/02	09/02/02	KWG0206440	
Benz(a)anthracene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Chrysene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Bis(2-ethylhexyl) Phthalate	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Di-n-octyl Phthalate	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Benzo(b)fluoranthene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Benzo(k)fluoranthene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Benzo(a)pyrene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Indeno(1,2,3-cd)pyrene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	
Dibenz(a,h)anthracene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-3 #2  
**Lab Code:** K2205605-006  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.42	1	08/27/02	09/02/02	KWG0206440	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	63	38-89	09/02/02	Acceptable
Phenol-d6	69	29-111	09/02/02	Acceptable
Nitrobenzene-d5	75	46-103	09/02/02	Acceptable
2-Fluorobiphenyl	66	53-106	09/02/02	Acceptable
2,4,6-Tribromophenol	59	48-111	09/02/02	Acceptable
Terphenyl-d14	71	33-139	09/02/02	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: 08/15/2002  
Date Received: 08/15/2002  
Date Extracted: 08/27/2002  
Date Analyzed: 09/02/2002

Tentatively Identified Compounds (TIC)  
Semi-Volatile Organic Compounds by GC/MS

Sample Name: TP-3 #2  
Lab Code: K2205605-006  
File ID: J:\MS08\DATA\090202\0902F011.D  
Instrument ID: MS08  
Extraction Method: EPA 3541  
Analysis Method: 8270C  
Sample Amount: 30.00 g  
% Solids: 79.3  
Dilution Factor: 1

Units: mg/Kg  
Basis: Dry  
Level: Low

Extraction Lot: KWG0206440

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

00078



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Aniline	ND	U	1.2	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethyl) Ether	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Phenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2-Chlorophenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
1,3-Dichlorobenzene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
1,4-Dichlorobenzene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
1,2-Dichlorobenzene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Benzyl Alcohol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroisopropyl) Ether	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2-Methylphenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Hexachloroethane	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodi-n-propylamine	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
4-Methylphenol†	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Nitrobenzene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Isophorone	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2-Nitrophenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2,4-Dimethylphenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethoxy)methane	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2,4-Dichlorophenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Benzoic Acid	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
1,2,4-Trichlorobenzene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Naphthalene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
4-Chloroaniline	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobutadiene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
4-Chloro-3-methylphenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2-Methylnaphthalene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Hexachlorocyclopentadiene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2,4,6-Trichlorophenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2,4,5-Trichlorophenol	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2-Chloronaphthalene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2-Nitroaniline	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Acenaphthylene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	

Comments: \_\_\_\_\_

00079



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
2,6-Dinitrotoluene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Acenaphthene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
3-Nitroaniline	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Dibenzofuran	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
4-Nitrophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrotoluene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Fluorene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
4-Chlorophenyl Phenyl Ether	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Diethyl Phthalate	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
4-Nitroaniline	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
2-Methyl-4,6-dinitrophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodiphenylamine	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
4-Bromophenyl Phenyl Ether	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobenzene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Pentachlorophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Phenanthrene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Anthracene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Di-n-butyl Phthalate	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Fluoranthene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Pyrene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Butyl Benzyl Phthalate	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
3,3'-Dichlorobenzidine	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Benz(a)anthracene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Chrysene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Bis(2-ethylhexyl) Phthalate	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Di-n-octyl Phthalate	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Benzo(b)fluoranthene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Benzo(k)fluoranthene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Benzo(a)pyrene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Indeno(1,2,3-cd)pyrene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	
Dibenz(a,h)anthracene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	

Comments:

00080

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.38	1	08/27/02	09/02/02	KWG0206440	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	52	38-89	09/02/02	Acceptable
Phenol-d6	57	29-111	09/02/02	Acceptable
Nitrobenzene-d5	75	46-103	09/02/02	Acceptable
2-Fluorobiphenyl	76	53-106	09/02/02	Acceptable
2,4,6-Tribromophenol	63	48-111	09/02/02	Acceptable
Terphenyl-d14	85	33-139	09/02/02	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments: \_\_\_\_\_

**00081**

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/27/2002  
**Date Analyzed:** 09/02/2002

**Tentatively Identified Compounds (TIC)  
 Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-5 #1  
**Lab Code:** K2205605-009  
**File ID:** J:\MS08\DATA\090202\0902F012.D  
**Instrument ID:** MS08  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C  
**Sample Amount:** 30.03 g  
**% Solids:** 86.8  
**Dilution Factor:** 1

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWG0206440

CAS No.	Analyte Name	RT	Result Q	Note
-	Unknown Alkane	24.00	0.19 J	
-	Unknown Alkane	25.40	1.1 J	
-	Unknown Organic Acid	26.24	0.39 J	
-	Unknown	26.64	0.30 J	
-	Unknown Alkane	27.26	0.68 J	
-	Unknown Alcohol	27.31	1.5 J	
-	Unknown Alkane	28.47	0.38 J	
-	Unknown	29.07	0.56 J	
-	Unknown Alkane	29.61	2.1 J	
-	Unknown Alcohol	29.70	0.33 J	
-	Unknown	30.63	0.33 J	
-	Unknown	30.90	1.2 J	
-	Unknown Alkane	31.38	1.3 J	
-	Unknown	31.52	1.8 J	
-	Unknown	31.90	0.20 J	
-	Unknown	32.73	0.38 J	
-	Unknown	33.05	1.0 J	
83-47-6	.gamma.-Sitosterol	34.74	0.24 JN	
-	Unknown	36.93	0.42 J	

00082

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-5 #2  
**Lab Code:** K2205605-010  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Aniline	ND	U	1.2	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethyl) Ether	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Phenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2-Chlorophenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
1,3-Dichlorobenzene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
1,4-Dichlorobenzene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
1,2-Dichlorobenzene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Benzyl Alcohol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroisopropyl) Ether	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2-Methylphenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Hexachloroethane	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodi-n-propylamine	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
4-Methylphenol†	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Nitrobenzene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Isophorone	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2-Nitrophenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2,4-Dimethylphenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethoxy)methane	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2,4-Dichlorophenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Benzoic Acid	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
1,2,4-Trichlorobenzene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Naphthalene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
4-Chloroaniline	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobutadiene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
4-Chloro-3-methylphenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2-Methylnaphthalene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Hexachlorocyclopentadiene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2,4,6-Trichlorophenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2,4,5-Trichlorophenol	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2-Chloronaphthalene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2-Nitroaniline	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Acenaphthylene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	

Comments: \_\_\_\_\_

## COLUMBIA ANALYTICAL SERVICES, INC.

## Analytical Results

Client: Georgia Pacific  
 Project: Camas Specialty Chemical  
 Sample Matrix: Solid

Service Request: K2205605  
 Date Collected: 08/15/2002  
 Date Received: 08/15/2002

## Semi-Volatile Organic Compounds by GC/MS

Sample Name: TP-5 #2  
 Lab Code: K2205605-010  
 Extraction Method: EPA 3541  
 Analysis Method: 8270C

Units: mg/Kg  
 Basis: Dry  
 Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
2,6-Dinitrotoluene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Acenaphthene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
3-Nitroaniline	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Dibenzofuran	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
4-Nitrophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrotoluene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Fluorene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
4-Chlorophenyl Phenyl Ether	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Diethyl Phthalate	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
4-Nitroaniline	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
2-Methyl-4,6-dinitrophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodiphenylamine	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
4-Bromophenyl Phenyl Ether	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobenzene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Pentachlorophenol	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Phenanthrene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Anthracene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Di-n-butyl Phthalate	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Fluoranthene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Pyrene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Butyl Benzyl Phthalate	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
3,3'-Dichlorobenzidine	ND	U	2.4	1	08/27/02	09/02/02	KWG0206440	
Benz(a)anthracene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Chrysene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Bis(2-ethylhexyl) Phthalate	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Di-n-octyl Phthalate	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Benzo(b)fluoranthene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Benzo(k)fluoranthene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Benzo(a)pyrene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Indeno(1,2,3-cd)pyrene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	
Dibenz(a,h)anthracene	ND	U	0.39	1	08/27/02	09/02/02	KWG0206440	

Comments:

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-5 #2  
**Lab Code:** K2205605-010  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND U	0.39	1	08/27/02	09/02/02	KWG0206440	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	69	38-89	09/02/02	Acceptable
Phenol-d6	77	29-111	09/02/02	Acceptable
Nitrobenzene-d5	92	46-103	09/02/02	Acceptable
2-Fluorobiphenyl	83	53-106	09/02/02	Acceptable
2,4,6-Tribromophenol	79	48-111	09/02/02	Acceptable
Terphenyl-d14	90	33-139	09/02/02	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments: \_\_\_\_\_

**00085**



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** 08/15/2002  
**Date Received:** 08/15/2002  
**Date Extracted:** 08/27/2002  
**Date Analyzed:** 09/02/2002

**Tentatively Identified Compounds (TIC)  
Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** TP-5 #2  
**Lab Code:** K2205605-010  
**File ID:** J:\MS08\DATA\090202\0902F013.D  
**Instrument ID:** MS08  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C  
**Sample Amount:** 30.00 g  
**% Solids:** 86.2  
**Dilution Factor:** 1

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

**Extraction Lot:** KWG0206440

CAS No.	Analyte Name	RT	Result Q	Note
111-06-8	Hexadecanoic acid, butyl ester	23.31	0.23 JN	
-	Unknown Polynuclear Aromatic Hydrocar	23.85	0.18 J	
638-67-5	Tricosane	24.00	0.24 JN	
-	Unknown Organic Acid	24.61	0.37 J	
-	Unknown Alkane	25.39	1.3 J	
5908-87-2	Docosanoic acid, ethyl ester	26.23	0.38 JN	
-	Unknown Aldehyde	26.64	0.35 J	
-	Unknown Alkane	27.25	0.59 J	
-	Unknown	27.30	1.7 J	
-	Unknown Alkane	28.47	0.37 J	
-	Unknown	29.07	0.46 J	
-	Unknown Alkane	29.61	1.7 J	
-	Unknown Alkane	29.70	0.30 J	
-	Unknown	30.90	1.0 J	
-	Unknown Alkane	31.38	0.88 J	
-	Unknown Alcohol	31.52	1.6 J	
-	Unknown Ketone	31.68	0.43 J	
-	Unknown Aldehyde	31.90	0.17 J	
-	Unknown	33.05	0.74 J	

00086

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206440-4  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
Aniline	ND	U	1.0	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethyl) Ether	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Phenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2-Chlorophenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
1,3-Dichlorobenzene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
1,4-Dichlorobenzene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
1,2-Dichlorobenzene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Benzyl Alcohol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroisopropyl) Ether	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2-Methylphenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Hexachloroethane	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodi-n-propylamine	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
4-Methylphenol†	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Nitrobenzene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Isophorone	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2-Nitrophenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2,4-Dimethylphenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Bis(2-chloroethoxy)methane	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2,4-Dichlorophenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Benzoic Acid	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
1,2,4-Trichlorobenzene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Naphthalene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
4-Chloroaniline	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobutadiene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
4-Chloro-3-methylphenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2-Methylnaphthalene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Hexachlorocyclopentadiene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2,4,6-Trichlorophenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2,4,5-Trichlorophenol	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2-Chloronaphthalene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2-Nitroaniline	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
Acenaphthylene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	

Comments:



**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206440-4  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
2,6-Dinitrotoluene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Acenaphthene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
3-Nitroaniline	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrophenol	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
Dibenzofuran	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
4-Nitrophenol	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
2,4-Dinitrotoluene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Fluorene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
4-Chlorophenyl Phenyl Ether	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Diethyl Phthalate	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
4-Nitroaniline	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
N-Nitrosodiphenylamine	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
4-Bromophenyl Phenyl Ether	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Hexachlorobenzene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Pentachlorophenol	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
Phenanthrene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Anthracene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Di-n-butyl Phthalate	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Fluoranthene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Pyrene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Butyl Benzyl Phthalate	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
3,3'-Dichlorobenzidine	ND	U	2.0	1	08/27/02	09/02/02	KWG0206440	
Benz(a)anthracene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Chrysene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Bis(2-ethylhexyl) Phthalate	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Di-n-octyl Phthalate	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Benzo(b)fluoranthene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Benzo(k)fluoranthene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Benzo(a)pyrene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Indeno(1,2,3-cd)pyrene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	
Dibenz(a,h)anthracene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	

Comments: \_\_\_\_\_

00088

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Results

**Client:** Georgia Pacific  
**Project:** Camas Specialty Chemical  
**Sample Matrix:** Solid

**Service Request:** K2205605  
**Date Collected:** NA  
**Date Received:** NA

**Semi-Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** KWG0206440-4  
**Extraction Method:** EPA 3541  
**Analysis Method:** 8270C

**Units:** mg/Kg  
**Basis:** Dry  
**Level:** Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Benzo(g,h,i)perylene	ND	U	0.33	1	08/27/02	09/02/02	KWG0206440	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	67	38-89	09/02/02	Acceptable
Phenol-d6	72	29-111	09/02/02	Acceptable
Nitrobenzene-d5	79	46-103	09/02/02	Acceptable
2-Fluorobiphenyl	75	53-106	09/02/02	Acceptable
2,4,6-Tribromophenol	77	48-111	09/02/02	Acceptable
Terphenyl-d14	90	33-139	09/02/02	Acceptable

† Analyte Comments

4-Methylphenol This analyte cannot be separated from 3-Methylphenol.

Comments: \_\_\_\_\_

00089

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: Georgia Pacific  
Project: Camas Specialty Chemical  
Sample Matrix: Solid

Service Request: K2205605  
Date Collected: NA  
Date Received: NA  
Date Extracted: 08/27/2002  
Date Analyzed: 09/02/2002

Tentatively Identified Compounds (TIC)  
Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank  
Lab Code: KWG0206440-4  
File ID: J:\MS08\DATA\090202\0902F004.D  
Instrument ID: MS08  
Extraction Method: EPA 3541  
Analysis Method: 8270C  
Sample Amount: 30.07 g  
% Solids: NA  
Dilution Factor: 1

Units: mg/Kg  
Basis: Dry  
Level: Low

Extraction Lot: KWG0206440

CAS No.	Analyte Name	RT	Result Q	Note
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No Tentatively Identified Compounds Detected.

00090

# Columbia Analytical Services

1317 South 13th, Kelso, WA 98626  
 (360) 577-7222 FAX (360) 636-1068

12205105

SR# \_\_\_\_\_ PAGE 1 OF 1

00091

Project Name: Camus Specialty Chemical Project Number: \_\_\_\_\_  
 Project Manager: Chip Hildner Company: Georgia-Pacific Corporation  
 Company/Address: Georgia-Pacific Corporation / 300 West Laurel Street Phone: 360-647-5695  
 City, State, Zip: Bellingham, WA 98225 FAX: 360-676-7247  
 Sampler's Signature: Bill Soule

Sample ID.	Date	Time	LAB ID	Matrix	Number of Containers	VOCs EPA-8260B	SVOCs EPA-8270SIM	PCBs EPA-8082	TPH DOE-WTPH-HCID	REMARKS
TP-1 #1	8/15/02	9:50A	1	Solid	1	X			X	
TP-1 #2	8/15/02	10:24A	2	Solid	1				X	
TP-2 #1	8/15/02	9:05A	3	Solid	2	X				
TP-2 #2	8/15/02	10:39A	4	Solid	2	X				
TP-3 #1	8/15/02	9:29A	5	Solid	2	X				
TP-3 #2	8/15/02	11:07A	6	Solid	2	X	X			
TP-4 #1	8/15/02	4:50A	7	Solid	2	X		X		
TP-4 #2	8/15/02	11:29A	8	Solid	2	X		X		
TP-5 #1	8/15/02	08:15	9	Solid	2	X	X			
TP-5 #2	8/15/02	08:15	10	Solid	2	X	X		X	

**TURNAROUND REQUIREMENTS**  
 24 hr \_\_\_\_\_ 48 hr \_\_\_\_\_ 5 day \_\_\_\_\_  
 Standard (21 days)  
 Provide FAX Preliminary Results  
 Requested Report Date: \_\_\_\_\_

**REPORT REQUIREMENTS**  
 I. Routine Report: Results, Method Blank, Surrogate, as required  
 II. Report Dup., MS, MSD as required  
 III. Data Validation Report (includes raw data)  
 IV. CLP Deliverable Report  
 V. EDD

**INVOICE INFORMATION**  
 P.O.# \_\_\_\_\_  
 Bill to: \_\_\_\_\_

**RELINQUISHED BY:**  
 Signature: Bill Soule  
 Printed Name: Bill Soule  
 Firm: Fort James Corp.  
 Date/Time: 8/15/02 11:53A

**RECEIVED BY:**  
 Signature: [Signature]  
 Printed Name: [Name]  
 Firm: [Firm]  
 Date/Time: 8/15/02

**Comments/Special Instructions:**

**RELINQUISHED BY:**  
 Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

**RECEIVED BY:**  
 Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Columbia Analytical Services Inc.  
Cooler Receipt And Preservation Form

*C. Couvier*

Project/Client: Georgia Pacific Camas Work Order # 05605  
Cooler received on 8-15-02 and opened on 8-15-02 by A. Skell

1. Were custody seals on outside of cooler?  
If yes, how many and where? 14  N
2. Were seals intact and signature & date correct?  N
3. COC # \_\_\_\_\_  
Temperature of cooler(s) upon receipt: 20.2 \_\_\_\_\_  
Temperature Blank: 13.4 \_\_\_\_\_
4. Were custody papers properly filled out (ink, signed, etc.)?  N
5. Type of packing material present bottle inserts, bubble wrap
6. Did all bottles arrive in good condition (unbroken)?  N
7. Were all bottle labels complete (i.e. analysis, preservation, etc.)?  N
8. Did all bottle labels and tags agree with custody papers?  N
9. Were the correct types of bottles used for the tests indicated?  N
10. Were all of the preserved bottles received at the lab with the appropriate pH? ~~Y~~ N
11. Were VOA vials checked for absence of air bubbles, and if present, noted below? ~~Y~~ N
12. Did the bottles originate from CAS/K or a branch laboratory? Y  N
13. Are CWA Microbiology samples received with > 1/2 the 24 hr. hold time remaining from collection? ~~Y~~ N
14. Was CL2/Residual negative? ~~Y~~ N

Explain any discrepancies: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RESOLUTION: \_\_\_\_\_  
\_\_\_\_\_

Samples that required preservation or received out of temperature:

Sample ID	Reagent	Volume	Lot Number	Bottle Type	Rec'd out of Temperature	Initials

# 2016 Phase II ESA



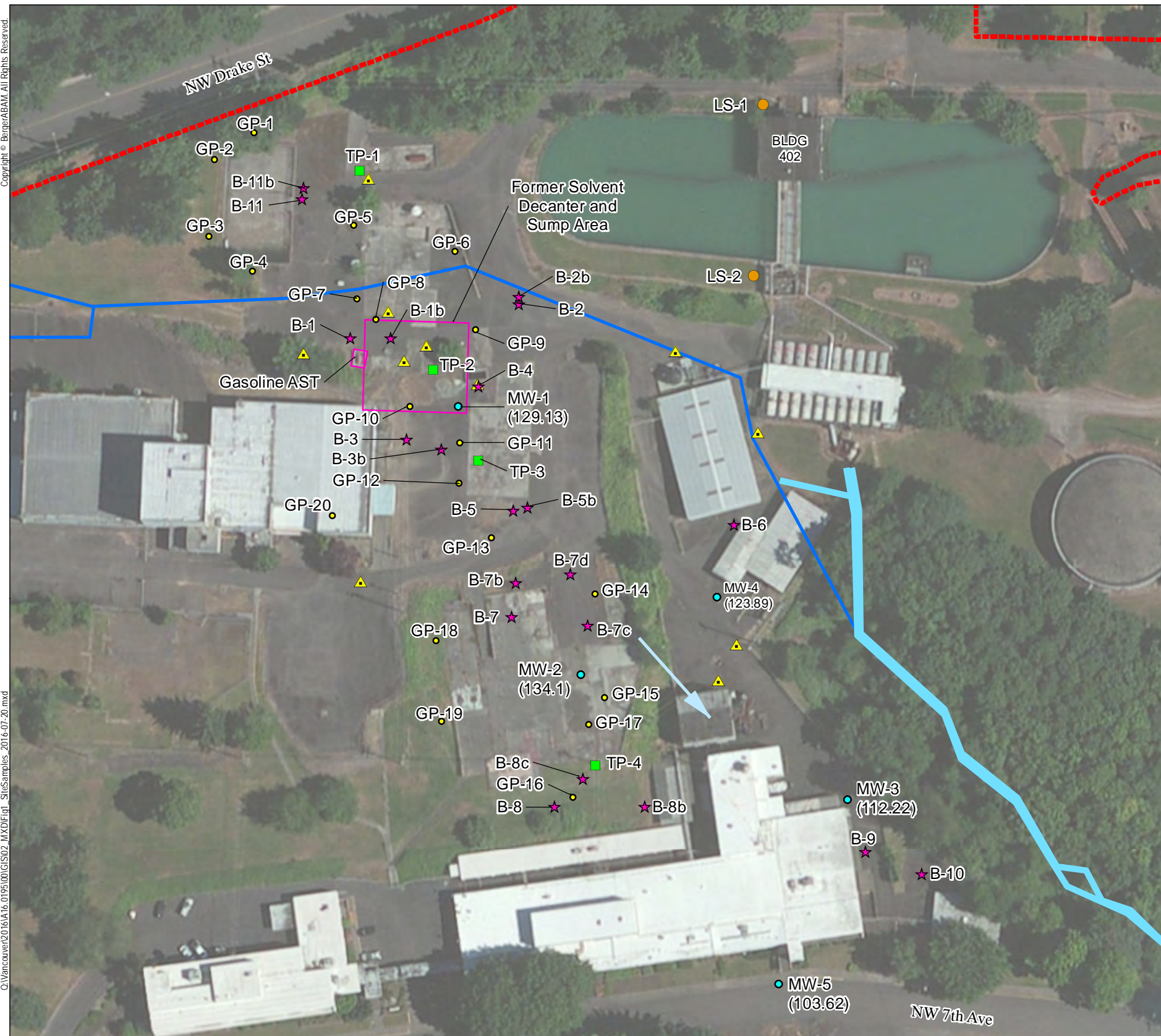


Figure 2 - Sample Locations and Groundwater Data For Chlorinated VOCs

Former Fort James Specialty Chemicals  
Phase II ESA  
Camas, Washington



0 25 50 100 150 200 Feet

Sample ID	Sample Date	Volatile Organic Compounds (µg/L)				
		PCE	TCE	1,1,1-trichloroethane	1,1-dichloroethene	cis-1,2-DCE
<b>Monitoring Wells</b>						
MW-1	8/25/2000	<b>23.6</b>	<1.0	<1.0	--	<b>2.39</b>
	7/19/2016	<b>2.00</b>	<1.00	<b>8.32</b>	<b>4.54</b>	<1.00
MW-2	8/25/2000	<b>2.32</b>	<1.0	<b>2.71</b>	--	<1.0
	7/19/2016	<1.00	<1.00	<1.00	<1.00	<1.00
MW-3	8/25/2000	<1.0	<b>17.5</b>	<1.0	--	<1.0
	7/19/2016	<1.00	<b>6.23</b>	<1.00	<b>1.19</b>	<1.00
MW-4	11/10/2000	<1.0	<1.0	<1.0	--	<1.0
	7/19/2016	<1.00	<1.00	<1.00	<1.00	<1.00
MW-5	11/10/2000	<1.0	<1.0	<1.0	--	<1.0
	7/20/2016	<1.00	<b>1.25</b>	<1.00	<1.00	<1.00
<b>Grab Sample</b>						
B-6(GW)	7/20/2016	<1.00	<1.00	<1.00	<1.00	<1.00
<b>MTCA Cleanup Levels</b>		5 <sup>4</sup>	5 <sup>4</sup>	200 <sup>4</sup>	400 <sup>5</sup>	16 <sup>5</sup>

Notes:

MTCA = Washington State Model Toxics Control Act

-- = not analyzed or not reported

µg/L = micrograms per liter

PCE = Tetrachloroethene

TCE = Trichloroethene

cis-1,2-DCE = cis-1,2-dichloroethene

**Bold** = indicates the analyte was detected at a concentration greater than the laboratory method reporting limit

<1.00 = The analyte was not detected. The associated numerical value is the sample quantitation limit.

Blue shading indicates the reported concentration exceeds the MTCA Method A CUL

### Legend

- B-1 ★ Geoprobe samples (BergerABAM, July 2016)
- LS-1 ● Surface soil sample (BergerABAM, July 2016)
- GP-9 ● Geoprobe (Secor, 2000)
- TP-3 ■ Test Pit (Georgia Pacific, 2002)
- MW-1 ● Monitoring Well (Ground Water Elevation in Feet Below Top of Casing)
- ▲ Storm Drain
- Storm Water
- ▶ Assumed Groundwater Gradient
- City Storm Water Line
- ▭ Project Site





# Specialty Analytical

11711 SE Capps Road, Ste B  
Clackamas, Oregon 97015  
TEL: 503-607-1331 FAX: 503-607-1336  
Website: [www.specialtyanalytical.com](http://www.specialtyanalytical.com)

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July 29, 2016

Amber Roesler  
Bergerabam  
211 E 13th St  
Vancouver, WA 98660

TEL: (360) 823-6100

FAX:

RE: Ft. James Specialty Chemicals

Dear Amber Roesler:

Order No.: 1607132

Specialty Analytical received 29 sample(s) on 7/20/2016 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Marty French". The signature is fluid and cursive, with the first name being more prominent.

Marty French  
Lab Director



# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

Lab ID: 1607132-001

Collection Date: 7/19/2016 5:30:00 PM

Client Sample ID: MW-1

Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>				Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,1,1-Trichloroethane	8.32	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,1-Dichloroethene	4.54	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
2-Butanone	ND	10.0		µg/L	1	7/20/2016 4:09:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
2-Hexanone	ND	10.0		µg/L	1	7/20/2016 4:09:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	7/20/2016 4:09:00 PM
Acetone	ND	50.0		µg/L	1	7/20/2016 4:09:00 PM
Acrylonitrile	ND	5.00		µg/L	1	7/20/2016 4:09:00 PM
Benzene	ND	0.300		µg/L	1	7/20/2016 4:09:00 PM
Bromobenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
Bromochloromethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
Bromoform	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
Bromomethane	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
Carbon disulfide	ND	2.00		µg/L	1	7/20/2016 4:09:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM
Chlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:09:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANICS BY GC/MS

SW8260B

Analyst: CK

Chloroethane	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Chloroform	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Chloromethane	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
cis-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
cis-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Dibromochloromethane	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Dibromomethane	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Dichlorodifluoromethane	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Ethylbenzene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Hexachlorobutadiene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Isopropylbenzene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
m,p-Xylene	ND	2.00	µg/L	1	7/20/2016 4:09:00 PM
Methyl tert-butyl ether	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Methylene chloride	ND	20.0	µg/L	1	7/20/2016 4:09:00 PM
Naphthalene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
n-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
n-Propylbenzene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
o-Xylene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
sec-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Styrene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
tert-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Tetrachloroethene	2.00	1.00	µg/L	1	7/20/2016 4:09:00 PM
Toluene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
trans-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
trans-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Trichloroethene	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Trichlorofluoromethane	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Trichlorotrifluoroethane	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Vinyl chloride	ND	1.00	µg/L	1	7/20/2016 4:09:00 PM
Surr: 1,2-Dichloroethane-d4	90.3	85.3-126	%REC	1	7/20/2016 4:09:00 PM
Surr: 4-Bromofluorobenzene	102	78.1-120	%REC	1	7/20/2016 4:09:00 PM
Surr: Dibromofluoromethane	99.8	84.2-122	%REC	1	7/20/2016 4:09:00 PM
Surr: Toluene-d8	89.9	86.2-135	%REC	1	7/20/2016 4:09:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

Lab ID: 1607132-002

Collection Date: 7/19/2016 5:35:00 PM

Client Sample ID: MW-2

Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>				Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
2-Butanone	ND	10.0		µg/L	1	7/20/2016 4:41:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
2-Hexanone	ND	10.0		µg/L	1	7/20/2016 4:41:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	7/20/2016 4:41:00 PM
Acetone	ND	50.0		µg/L	1	7/20/2016 4:41:00 PM
Acrylonitrile	ND	5.00		µg/L	1	7/20/2016 4:41:00 PM
Benzene	ND	0.300		µg/L	1	7/20/2016 4:41:00 PM
Bromobenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
Bromochloromethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
Bromoform	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
Bromomethane	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
Carbon disulfide	ND	2.00		µg/L	1	7/20/2016 4:41:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM
Chlorobenzene	ND	1.00		µg/L	1	7/20/2016 4:41:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANICS BY GC/MS

SW8260B

Analyst: CK

Chloroethane	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Chloroform	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Chloromethane	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
cis-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
cis-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Dibromochloromethane	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Dibromomethane	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Dichlorodifluoromethane	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Ethylbenzene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Hexachlorobutadiene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Isopropylbenzene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
m,p-Xylene	ND	2.00	µg/L	1	7/20/2016 4:41:00 PM
Methyl tert-butyl ether	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Methylene chloride	ND	20.0	µg/L	1	7/20/2016 4:41:00 PM
Naphthalene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
n-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
n-Propylbenzene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
o-Xylene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
sec-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Styrene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
tert-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Tetrachloroethene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Toluene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
trans-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
trans-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Trichloroethene	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Trichlorofluoromethane	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Trichlorotrifluoroethane	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Vinyl chloride	ND	1.00	µg/L	1	7/20/2016 4:41:00 PM
Surr: 1,2-Dichloroethane-d4	92.6	85.3-126	%REC	1	7/20/2016 4:41:00 PM
Surr: 4-Bromofluorobenzene	105	78.1-120	%REC	1	7/20/2016 4:41:00 PM
Surr: Dibromofluoromethane	101	84.2-122	%REC	1	7/20/2016 4:41:00 PM
Surr: Toluene-d8	88.7	86.2-135	%REC	1	7/20/2016 4:41:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-003

**Collection Date:** 7/19/2016 5:50:00 PM

**Client Sample ID:** MW-3

**Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,1-Dichloroethene	1.19	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
2-Butanone	ND	10.0		µg/L	1	7/20/2016 5:13:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
2-Hexanone	ND	10.0		µg/L	1	7/20/2016 5:13:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	7/20/2016 5:13:00 PM
Acetone	ND	50.0		µg/L	1	7/20/2016 5:13:00 PM
Acrylonitrile	ND	5.00		µg/L	1	7/20/2016 5:13:00 PM
Benzene	ND	0.300		µg/L	1	7/20/2016 5:13:00 PM
Bromobenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
Bromochloromethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
Bromoform	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
Bromomethane	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
Carbon disulfide	ND	2.00		µg/L	1	7/20/2016 5:13:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM
Chlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:13:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANICS BY GC/MS

SW8260B

Analyst: CK

Chloroethane	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Chloroform	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Chloromethane	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
cis-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
cis-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Dibromochloromethane	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Dibromomethane	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Dichlorodifluoromethane	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Ethylbenzene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Hexachlorobutadiene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Isopropylbenzene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
m,p-Xylene	ND	2.00	µg/L	1	7/20/2016 5:13:00 PM
Methyl tert-butyl ether	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Methylene chloride	ND	20.0	µg/L	1	7/20/2016 5:13:00 PM
Naphthalene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
n-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
n-Propylbenzene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
o-Xylene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
sec-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Styrene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
tert-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Tetrachloroethene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Toluene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
trans-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
trans-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Trichloroethene	6.23	1.00	µg/L	1	7/20/2016 5:13:00 PM
Trichlorofluoromethane	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Trichlorotrifluoroethane	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Vinyl chloride	ND	1.00	µg/L	1	7/20/2016 5:13:00 PM
Surr: 1,2-Dichloroethane-d4	94.6	85.3-126	%REC	1	7/20/2016 5:13:00 PM
Surr: 4-Bromofluorobenzene	106	78.1-120	%REC	1	7/20/2016 5:13:00 PM
Surr: Dibromofluoromethane	102	84.2-122	%REC	1	7/20/2016 5:13:00 PM
Surr: Toluene-d8	89.4	86.2-135	%REC	1	7/20/2016 5:13:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-004

**Collection Date:** 7/19/2016 6:05:00 PM

**Client Sample ID:** MW-4

**Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2-Dichlorobenzene	1.85	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
2-Butanone	ND	10.0		µg/L	1	7/20/2016 5:45:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
2-Hexanone	ND	10.0		µg/L	1	7/20/2016 5:45:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	7/20/2016 5:45:00 PM
Acetone	ND	50.0		µg/L	1	7/20/2016 5:45:00 PM
Acrylonitrile	ND	5.00		µg/L	1	7/20/2016 5:45:00 PM
Benzene	ND	0.300		µg/L	1	7/20/2016 5:45:00 PM
Bromobenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
Bromochloromethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
Bromoform	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
Bromomethane	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
Carbon disulfide	ND	2.00		µg/L	1	7/20/2016 5:45:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM
Chlorobenzene	ND	1.00		µg/L	1	7/20/2016 5:45:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANICS BY GC/MS

SW8260B

Analyst: CK

Chloroethane	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Chloroform	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Chloromethane	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
cis-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
cis-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Dibromochloromethane	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Dibromomethane	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Dichlorodifluoromethane	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Ethylbenzene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Hexachlorobutadiene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Isopropylbenzene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
m,p-Xylene	ND	2.00	µg/L	1	7/20/2016 5:45:00 PM
Methyl tert-butyl ether	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Methylene chloride	ND	20.0	µg/L	1	7/20/2016 5:45:00 PM
Naphthalene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
n-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
n-Propylbenzene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
o-Xylene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
sec-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Styrene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
tert-Butylbenzene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Tetrachloroethene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Toluene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
trans-1,2-Dichloroethene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
trans-1,3-Dichloropropene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Trichloroethene	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Trichlorofluoromethane	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Trichlorotrifluoroethane	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Vinyl chloride	ND	1.00	µg/L	1	7/20/2016 5:45:00 PM
Surr: 1,2-Dichloroethane-d4	98.6	85.3-126	%REC	1	7/20/2016 5:45:00 PM
Surr: 4-Bromofluorobenzene	106	78.1-120	%REC	1	7/20/2016 5:45:00 PM
Surr: Dibromofluoromethane	104	84.2-122	%REC	1	7/20/2016 5:45:00 PM
Surr: Toluene-d8	89.2	86.2-135	%REC	1	7/20/2016 5:45:00 PM



# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-005

**Collection Date:** 7/19/2016 3:40:00 PM

**Client Sample ID:** B-1(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>						Analyst: <b>CK</b>
Bis(2-ethylhexyl)phthalate	ND	37.0		µg/Kg-dry	1	7/25/2016 5:02:00 PM
Surr: 2-Fluorobiphenyl	93.8	52.6-113.2		%REC	1	7/25/2016 5:02:00 PM
Surr: 4-Terphenyl-d14	90.9	49.8-118		%REC	1	7/25/2016 5:02:00 PM
Surr: Nitrobenzene-d5	67.1	44.8-103		%REC	1	7/25/2016 5:02:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>						Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,1,1-Trichloroethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,1,2,2-Tetrachloroethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,1,2-Trichloroethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,1-Dichloroethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,1-Dichloroethene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,1-Dichloropropene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2,3-Trichlorobenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2,3-Trichloropropane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2,4-Trichlorobenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2,4-Trimethylbenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2-Dibromo-3-chloropropane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2-Dibromoethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2-Dichlorobenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2-Dichloroethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,2-Dichloropropane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,3,5-Trimethylbenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,3-Dichlorobenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,3-Dichloropropane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
1,4-Dichlorobenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
2,2-Dichloropropane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
2-Butanone	ND	45.6		µg/Kg-dry	1	7/22/2016 4:37:00 PM
2-Chlorotoluene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
2-Hexanone	ND	22.8		µg/Kg-dry	1	7/22/2016 4:37:00 PM
4-Chlorotoluene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
4-Isopropyltoluene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
4-Methyl-2-pentanone	ND	45.6		µg/Kg-dry	1	7/22/2016 4:37:00 PM
Acetone	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
Benzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
Bromobenzene	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
Bromochloromethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM
Bromodichloromethane	ND	11.4		µg/Kg-dry	1	7/22/2016 4:37:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Bromomethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Carbon Disulfide	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Carbon tetrachloride	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Chlorobenzene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Chloroethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Chloroform	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Chloromethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
cis-1,2-Dichloroethene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
cis-1,3-Dichloropropene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Dibromochloromethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Dibromomethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Dichlorodifluoromethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Ethylbenzene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Hexachlorobutadiene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Isopropylbenzene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
m,p-Xylene	ND	22.8	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Methyl tert-butyl ether	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Methylene Chloride	ND	56.9	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Naphthalene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
n-Butylbenzene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
n-Propylbenzene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
o-Xylene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
sec-Butylbenzene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Styrene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
tert-Butylbenzene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Tetrachloroethene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Toluene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
trans-1,2-Dichloroethene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
trans-1,3-Dichloropropene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Trichloroethene	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Trichlorofluoromethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Trichlorotrifluoroethane	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Vinyl Chloride	ND	11.4	µg/Kg-dry	1	7/22/2016 4:37:00 PM
Surr: 1,2-Dichloroethane-d4	103	71.5-123	%REC	1	7/22/2016 4:37:00 PM
Surr: 4-Bromofluorobenzene	95.3	75.7-122	%REC	1	7/22/2016 4:37:00 PM
Surr: Dibromofluoromethane	109	64.3-124	%REC	1	7/22/2016 4:37:00 PM
Surr: Toluene-d8	87.7	74.9-120	%REC	1	7/22/2016 4:37:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-006

**Collection Date:** 7/19/2016 3:50:00 PM

**Client Sample ID:** B-1(13')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>						Analyst: <b>CK</b>
Bis(2-ethylhexyl)phthalate	ND	39.9		µg/Kg-dry	1	7/22/2016 2:36:00 PM
Surr: 2-Fluorobiphenyl	65.9	52.6-113.2		%REC	1	7/22/2016 2:36:00 PM
Surr: 4-Terphenyl-d14	75.5	49.8-118		%REC	1	7/22/2016 2:36:00 PM
Surr: Nitrobenzene-d5	65.7	44.8-103		%REC	1	7/22/2016 2:36:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>						Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,1,1-Trichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,1,2,2-Tetrachloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,1,2-Trichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,1-Dichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,1-Dichloroethene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,1-Dichloropropene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2,3-Trichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2,3-Trichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2,4-Trichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2,4-Trimethylbenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2-Dibromo-3-chloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2-Dibromoethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2-Dichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2-Dichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,2-Dichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,3,5-Trimethylbenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,3-Dichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,3-Dichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
1,4-Dichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
2,2-Dichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
2-Butanone	ND	51.1		µg/Kg-dry	1	7/21/2016 3:10:00 PM
2-Chlorotoluene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
2-Hexanone	ND	25.6		µg/Kg-dry	1	7/21/2016 3:10:00 PM
4-Chlorotoluene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
4-Isopropyltoluene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
4-Methyl-2-pentanone	ND	51.1		µg/Kg-dry	1	7/21/2016 3:10:00 PM
Acetone	ND	128		µg/Kg-dry	1	7/21/2016 3:10:00 PM
Benzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
Bromobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
Bromochloromethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM
Bromodichloromethane	ND	12.8		µg/Kg-dry	1	7/21/2016 3:10:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Bromomethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Carbon Disulfide	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Carbon tetrachloride	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Chlorobenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Chloroethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Chloroform	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Chloromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
cis-1,2-Dichloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
cis-1,3-Dichloropropene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Dibromochloromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Dibromomethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Dichlorodifluoromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Ethylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Hexachlorobutadiene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Isopropylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
m,p-Xylene	ND	25.6	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Methyl tert-butyl ether	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Methylene Chloride	ND	63.9	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Naphthalene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
n-Butylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
n-Propylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
o-Xylene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
sec-Butylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Styrene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
tert-Butylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Tetrachloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Toluene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
trans-1,2-Dichloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
trans-1,3-Dichloropropene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Trichloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Trichlorofluoromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Trichlorotrifluoroethane	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Vinyl Chloride	ND	12.8	µg/Kg-dry	1	7/21/2016 3:10:00 PM
Surr: 1,2-Dichloroethane-d4	103	71.5-123	%REC	1	7/21/2016 3:10:00 PM
Surr: 4-Bromofluorobenzene	92.7	75.7-122	%REC	1	7/21/2016 3:10:00 PM
Surr: Dibromofluoromethane	106	64.3-124	%REC	1	7/21/2016 3:10:00 PM
Surr: Toluene-d8	88.3	74.9-120	%REC	1	7/21/2016 3:10:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-007

**Collection Date:** 7/19/2016 4:00:00 PM

**Client Sample ID:** B-1(26')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	45.4		µg/Kg-dry	1	7/25/2016 5:28:00 PM
Surr: 2-Fluorobiphenyl	83.4	52.6-113.2		%REC	1	7/25/2016 5:28:00 PM
Surr: 4-Terphenyl-d14	81.5	49.8-118		%REC	1	7/25/2016 5:28:00 PM
Surr: Nitrobenzene-d5	70.9	44.8-103		%REC	1	7/25/2016 5:28:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,1,1-Trichloroethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,1,2,2-Tetrachloroethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,1,2-Trichloroethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,1-Dichloroethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,1-Dichloroethene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,1-Dichloropropene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2,3-Trichlorobenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2,3-Trichloropropane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2,4-Trichlorobenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2,4-Trimethylbenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2-Dibromo-3-chloropropane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2-Dibromoethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2-Dichlorobenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2-Dichloroethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,2-Dichloropropane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,3,5-Trimethylbenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,3-Dichlorobenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,3-Dichloropropane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
1,4-Dichlorobenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
2,2-Dichloropropane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
2-Butanone	ND	65.5		µg/Kg-dry	1	7/21/2016 4:15:00 PM
2-Chlorotoluene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
2-Hexanone	ND	32.7		µg/Kg-dry	1	7/21/2016 4:15:00 PM
4-Chlorotoluene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
4-Isopropyltoluene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
4-Methyl-2-pentanone	ND	65.5		µg/Kg-dry	1	7/21/2016 4:15:00 PM
Acetone	ND	164		µg/Kg-dry	1	7/21/2016 4:15:00 PM
Benzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
Bromobenzene	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
Bromochloromethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM
Bromodichloromethane	ND	16.4		µg/Kg-dry	1	7/21/2016 4:15:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Bromomethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Carbon Disulfide	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Carbon tetrachloride	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Chlorobenzene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Chloroethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Chloroform	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Chloromethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
cis-1,2-Dichloroethene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
cis-1,3-Dichloropropene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Dibromochloromethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Dibromomethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Dichlorodifluoromethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Ethylbenzene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Hexachlorobutadiene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Isopropylbenzene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
m,p-Xylene	ND	32.7	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Methyl tert-butyl ether	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Methylene Chloride	ND	81.8	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Naphthalene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
n-Butylbenzene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
n-Propylbenzene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
o-Xylene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
sec-Butylbenzene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Styrene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
tert-Butylbenzene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Tetrachloroethene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Toluene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
trans-1,2-Dichloroethene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
trans-1,3-Dichloropropene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Trichloroethene	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Trichlorofluoromethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Trichlorotrifluoroethane	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Vinyl Chloride	ND	16.4	µg/Kg-dry	1	7/21/2016 4:15:00 PM
Surr: 1,2-Dichloroethane-d4	106	71.5-123	%REC	1	7/21/2016 4:15:00 PM
Surr: 4-Bromofluorobenzene	92.6	75.7-122	%REC	1	7/21/2016 4:15:00 PM
Surr: Dibromofluoromethane	108	64.3-124	%REC	1	7/21/2016 4:15:00 PM
Surr: Toluene-d8	87.3	74.9-120	%REC	1	7/21/2016 4:15:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-008

**Collection Date:** 7/19/2016 10:40:00 AM

**Client Sample ID:** B-2(2')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,1,1-Trichloroethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,1,2,2-Tetrachloroethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,1,2-Trichloroethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,1-Dichloroethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,1-Dichloroethene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,1-Dichloropropene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2,3-Trichlorobenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2,3-Trichloropropane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2,4-Trichlorobenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2,4-Trimethylbenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2-Dibromo-3-chloropropane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2-Dibromoethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2-Dichlorobenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2-Dichloroethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,2-Dichloropropane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,3,5-Trimethylbenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,3-Dichlorobenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,3-Dichloropropane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
1,4-Dichlorobenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
2,2-Dichloropropane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
2-Butanone	ND	55.7		µg/Kg-dry	1	7/21/2016 4:47:00 PM
2-Chlorotoluene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
2-Hexanone	ND	27.8		µg/Kg-dry	1	7/21/2016 4:47:00 PM
4-Chlorotoluene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
4-Isopropyltoluene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
4-Methyl-2-pentanone	ND	55.7		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Acetone	ND	139		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Benzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Bromobenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Bromochloromethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Bromodichloromethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Bromoform	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Bromomethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Carbon Disulfide	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Carbon tetrachloride	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Chlorobenzene	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM
Chloroethane	ND	13.9		µg/Kg-dry	1	7/21/2016 4:47:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

VOLATILE ORGANIC COMPOUNDS BY GC/MS		SW8260B	Analyst: CK			
Chloroform	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Chloromethane	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
cis-1,2-Dichloroethene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
cis-1,3-Dichloropropene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Dibromochloromethane	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Dibromomethane	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Dichlorodifluoromethane	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Ethylbenzene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Hexachlorobutadiene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Isopropylbenzene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
m,p-Xylene	ND	27.8	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Methyl tert-butyl ether	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Methylene Chloride	ND	69.6	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Naphthalene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
n-Butylbenzene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
n-Propylbenzene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
o-Xylene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
sec-Butylbenzene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Styrene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
tert-Butylbenzene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Tetrachloroethene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Toluene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
trans-1,2-Dichloroethene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
trans-1,3-Dichloropropene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Trichloroethene	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Trichlorofluoromethane	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Trichlorotrifluoroethane	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Vinyl Chloride	ND	13.9	µg/Kg-dry	1	7/21/2016 4:47:00 PM	
Surr: 1,2-Dichloroethane-d4	106	71.5-123	%REC	1	7/21/2016 4:47:00 PM	
Surr: 4-Bromofluorobenzene	92.1	75.7-122	%REC	1	7/21/2016 4:47:00 PM	
Surr: Dibromofluoromethane	109	64.3-124	%REC	1	7/21/2016 4:47:00 PM	
Surr: Toluene-d8	88.2	74.9-120	%REC	1	7/21/2016 4:47:00 PM	

**Lab ID:** 1607132-009

**Collection Date:** 7/19/2016 10:50:00 AM

**Client Sample ID:** B-2(20')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: knb

Hold	ND				1	7/29/2016 3:10:49 PM
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# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-010

**Collection Date:** 7/19/2016 12:30:00 PM

**Client Sample ID:** B-3(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	37.1		µg/Kg-dry	1	7/22/2016 3:29:00 PM
Surr: 2-Fluorobiphenyl	73.1	52.6-113.2		%REC	1	7/22/2016 3:29:00 PM
Surr: 4-Terphenyl-d14	76.3	49.8-118		%REC	1	7/22/2016 3:29:00 PM
Surr: Nitrobenzene-d5	67.1	44.8-103		%REC	1	7/22/2016 3:29:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,1,1-Trichloroethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,1,2,2-Tetrachloroethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,1,2-Trichloroethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,1-Dichloroethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,1-Dichloroethene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,1-Dichloropropene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2,3-Trichlorobenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2,3-Trichloropropane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2,4-Trichlorobenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2,4-Trimethylbenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2-Dibromo-3-chloropropane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2-Dibromoethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2-Dichlorobenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2-Dichloroethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,2-Dichloropropane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,3,5-Trimethylbenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,3-Dichlorobenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,3-Dichloropropane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
1,4-Dichlorobenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
2,2-Dichloropropane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
2-Butanone	ND	67.3		µg/Kg-dry	1	7/21/2016 5:19:00 PM
2-Chlorotoluene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
2-Hexanone	ND	33.6		µg/Kg-dry	1	7/21/2016 5:19:00 PM
4-Chlorotoluene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
4-Isopropyltoluene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
4-Methyl-2-pentanone	ND	67.3		µg/Kg-dry	1	7/21/2016 5:19:00 PM
Acetone	ND	168		µg/Kg-dry	1	7/21/2016 5:19:00 PM
Benzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
Bromobenzene	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
Bromochloromethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM
Bromodichloromethane	ND	16.8		µg/Kg-dry	1	7/21/2016 5:19:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Bromomethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Carbon Disulfide	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Carbon tetrachloride	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Chlorobenzene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Chloroethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Chloroform	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Chloromethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
cis-1,2-Dichloroethene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
cis-1,3-Dichloropropene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Dibromochloromethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Dibromomethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Dichlorodifluoromethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Ethylbenzene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Hexachlorobutadiene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Isopropylbenzene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
m,p-Xylene	ND	33.6	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Methyl tert-butyl ether	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Methylene Chloride	ND	84.1	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Naphthalene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
n-Butylbenzene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
n-Propylbenzene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
o-Xylene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
sec-Butylbenzene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Styrene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
tert-Butylbenzene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Tetrachloroethene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Toluene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
trans-1,2-Dichloroethene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
trans-1,3-Dichloropropene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Trichloroethene	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Trichlorofluoromethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Trichlorotrifluoroethane	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Vinyl Chloride	ND	16.8	µg/Kg-dry	1	7/21/2016 5:19:00 PM
Surr: 1,2-Dichloroethane-d4	113	71.5-123	%REC	1	7/21/2016 5:19:00 PM
Surr: 4-Bromofluorobenzene	94.0	75.7-122	%REC	1	7/21/2016 5:19:00 PM
Surr: Dibromofluoromethane	113	64.3-124	%REC	1	7/21/2016 5:19:00 PM
Surr: Toluene-d8	86.8	74.9-120	%REC	1	7/21/2016 5:19:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-011

**Collection Date:** 7/19/2016 11:30:00 AM

**Client Sample ID:** B-4(2')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	41.5		µg/Kg-dry	1	7/25/2016 5:54:00 PM
Surr: 2-Fluorobiphenyl	107	52.6-113.2		%REC	1	7/25/2016 5:54:00 PM
Surr: 4-Terphenyl-d14	105	49.8-118		%REC	1	7/25/2016 5:54:00 PM
Surr: Nitrobenzene-d5	71.7	44.8-103		%REC	1	7/25/2016 5:54:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,1,1-Trichloroethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,1,2,2-Tetrachloroethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,1,2-Trichloroethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,1-Dichloroethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,1-Dichloroethene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,1-Dichloropropene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2,3-Trichlorobenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2,3-Trichloropropane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2,4-Trichlorobenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2,4-Trimethylbenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2-Dibromo-3-chloropropane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2-Dibromoethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2-Dichlorobenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2-Dichloroethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,2-Dichloropropane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,3,5-Trimethylbenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,3-Dichlorobenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,3-Dichloropropane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
1,4-Dichlorobenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
2,2-Dichloropropane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
2-Butanone	ND	50.2		µg/Kg-dry	1	7/21/2016 5:52:00 PM
2-Chlorotoluene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
2-Hexanone	ND	25.1		µg/Kg-dry	1	7/21/2016 5:52:00 PM
4-Chlorotoluene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
4-Isopropyltoluene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
4-Methyl-2-pentanone	ND	50.2		µg/Kg-dry	1	7/21/2016 5:52:00 PM
Acetone	ND	125		µg/Kg-dry	1	7/21/2016 5:52:00 PM
Benzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
Bromobenzene	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
Bromochloromethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM
Bromodichloromethane	ND	12.5		µg/Kg-dry	1	7/21/2016 5:52:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Bromomethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Carbon Disulfide	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Carbon tetrachloride	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Chlorobenzene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Chloroethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Chloroform	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Chloromethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
cis-1,2-Dichloroethene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
cis-1,3-Dichloropropene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Dibromochloromethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Dibromomethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Dichlorodifluoromethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Ethylbenzene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Hexachlorobutadiene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Isopropylbenzene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
m,p-Xylene	ND	25.1	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Methyl tert-butyl ether	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Methylene Chloride	ND	62.7	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Naphthalene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
n-Butylbenzene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
n-Propylbenzene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
o-Xylene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
sec-Butylbenzene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Styrene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
tert-Butylbenzene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Tetrachloroethene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Toluene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
trans-1,2-Dichloroethene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
trans-1,3-Dichloropropene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Trichloroethene	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Trichlorofluoromethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Trichlorotrifluoroethane	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Vinyl Chloride	ND	12.5	µg/Kg-dry	1	7/21/2016 5:52:00 PM
Surr: 1,2-Dichloroethane-d4	107	71.5-123	%REC	1	7/21/2016 5:52:00 PM
Surr: 4-Bromofluorobenzene	93.7	75.7-122	%REC	1	7/21/2016 5:52:00 PM
Surr: Dibromofluoromethane	109	64.3-124	%REC	1	7/21/2016 5:52:00 PM
Surr: Toluene-d8	87.0	74.9-120	%REC	1	7/21/2016 5:52:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-012

**Collection Date:** 7/19/2016 11:50:00 AM

**Client Sample ID:** B-4(12')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	41.2		µg/Kg-dry	1	7/25/2016 2:11:00 PM
Surr: 2-Fluorobiphenyl	80.2	52.6-113.2		%REC	1	7/25/2016 2:11:00 PM
Surr: 4-Terphenyl-d14	81.5	49.8-118		%REC	1	7/25/2016 2:11:00 PM
Surr: Nitrobenzene-d5	66.9	44.8-103		%REC	1	7/25/2016 2:11:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,1,1-Trichloroethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,1,2,2-Tetrachloroethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,1,2-Trichloroethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,1-Dichloroethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,1-Dichloroethene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,1-Dichloropropene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2,3-Trichlorobenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2,3-Trichloropropane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2,4-Trichlorobenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2,4-Trimethylbenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2-Dibromo-3-chloropropane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2-Dibromoethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2-Dichlorobenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2-Dichloroethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,2-Dichloropropane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,3,5-Trimethylbenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,3-Dichlorobenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,3-Dichloropropane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
1,4-Dichlorobenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
2,2-Dichloropropane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
2-Butanone	ND	51.7		µg/Kg-dry	1	7/21/2016 6:24:00 PM
2-Chlorotoluene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
2-Hexanone	ND	25.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
4-Chlorotoluene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
4-Isopropyltoluene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
4-Methyl-2-pentanone	ND	51.7		µg/Kg-dry	1	7/21/2016 6:24:00 PM
Acetone	ND	129		µg/Kg-dry	1	7/21/2016 6:24:00 PM
Benzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
Bromobenzene	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
Bromochloromethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM
Bromodichloromethane	ND	12.9		µg/Kg-dry	1	7/21/2016 6:24:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Bromomethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Carbon Disulfide	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Carbon tetrachloride	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Chlorobenzene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Chloroethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Chloroform	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Chloromethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
cis-1,2-Dichloroethene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
cis-1,3-Dichloropropene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Dibromochloromethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Dibromomethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Dichlorodifluoromethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Ethylbenzene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Hexachlorobutadiene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Isopropylbenzene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
m,p-Xylene	ND	25.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Methyl tert-butyl ether	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Methylene Chloride	ND	64.6	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Naphthalene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
n-Butylbenzene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
n-Propylbenzene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
o-Xylene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
sec-Butylbenzene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Styrene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
tert-Butylbenzene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Tetrachloroethene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Toluene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
trans-1,2-Dichloroethene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
trans-1,3-Dichloropropene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Trichloroethene	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Trichlorofluoromethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Trichlorotrifluoroethane	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Vinyl Chloride	ND	12.9	µg/Kg-dry	1	7/21/2016 6:24:00 PM
Surr: 1,2-Dichloroethane-d4	110	71.5-123	%REC	1	7/21/2016 6:24:00 PM
Surr: 4-Bromofluorobenzene	92.3	75.7-122	%REC	1	7/21/2016 6:24:00 PM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/21/2016 6:24:00 PM
Surr: Toluene-d8	87.3	74.9-120	%REC	1	7/21/2016 6:24:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-013

**Collection Date:** 7/19/2016 12:00:00 PM

**Client Sample ID:** B-4(37')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>						Analyst: <b>CK</b>
Bis(2-ethylhexyl)phthalate	ND	43.7		µg/Kg-dry	1	7/22/2016 4:24:00 PM
Surr: 2-Fluorobiphenyl	70.8	52.6-113.2		%REC	1	7/22/2016 4:24:00 PM
Surr: 4-Terphenyl-d14	74.0	49.8-118		%REC	1	7/22/2016 4:24:00 PM
Surr: Nitrobenzene-d5	60.0	44.8-103		%REC	1	7/22/2016 4:24:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>						Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,1,1-Trichloroethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,1,2,2-Tetrachloroethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,1,2-Trichloroethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,1-Dichloroethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,1-Dichloroethene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,1-Dichloropropene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2,3-Trichlorobenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2,3-Trichloropropane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2,4-Trichlorobenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2,4-Trimethylbenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2-Dibromo-3-chloropropane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2-Dibromoethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2-Dichlorobenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2-Dichloroethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,2-Dichloropropane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,3,5-Trimethylbenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,3-Dichlorobenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,3-Dichloropropane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
1,4-Dichlorobenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
2,2-Dichloropropane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
2-Butanone	ND	55.9		µg/Kg-dry	1	7/21/2016 6:56:00 PM
2-Chlorotoluene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
2-Hexanone	ND	27.9		µg/Kg-dry	1	7/21/2016 6:56:00 PM
4-Chlorotoluene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
4-Isopropyltoluene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
4-Methyl-2-pentanone	ND	55.9		µg/Kg-dry	1	7/21/2016 6:56:00 PM
Acetone	ND	140		µg/Kg-dry	1	7/21/2016 6:56:00 PM
Benzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
Bromobenzene	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
Bromochloromethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM
Bromodichloromethane	ND	14.0		µg/Kg-dry	1	7/21/2016 6:56:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Bromomethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Carbon Disulfide	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Carbon tetrachloride	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Chlorobenzene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Chloroethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Chloroform	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Chloromethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
cis-1,2-Dichloroethene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
cis-1,3-Dichloropropene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Dibromochloromethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Dibromomethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Dichlorodifluoromethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Ethylbenzene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Hexachlorobutadiene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Isopropylbenzene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
m,p-Xylene	ND	27.9	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Methyl tert-butyl ether	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Methylene Chloride	ND	69.9	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Naphthalene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
n-Butylbenzene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
n-Propylbenzene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
o-Xylene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
sec-Butylbenzene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Styrene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
tert-Butylbenzene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Tetrachloroethene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Toluene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
trans-1,2-Dichloroethene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
trans-1,3-Dichloropropene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Trichloroethene	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Trichlorofluoromethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Trichlorotrifluoroethane	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Vinyl Chloride	ND	14.0	µg/Kg-dry	1	7/21/2016 6:56:00 PM
Surr: 1,2-Dichloroethane-d4	111	71.5-123	%REC	1	7/21/2016 6:56:00 PM
Surr: 4-Bromofluorobenzene	93.8	75.7-122	%REC	1	7/21/2016 6:56:00 PM
Surr: Dibromofluoromethane	110	64.3-124	%REC	1	7/21/2016 6:56:00 PM
Surr: Toluene-d8	87.2	74.9-120	%REC	1	7/21/2016 6:56:00 PM



# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-014

**Collection Date:** 7/19/2016 10:07:00 AM

**Client Sample ID:** B-5(3')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,1,1-Trichloroethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,1,2,2-Tetrachloroethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,1,2-Trichloroethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,1-Dichloroethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,1-Dichloroethene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,1-Dichloropropene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2,3-Trichlorobenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2,3-Trichloropropane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2,4-Trichlorobenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2,4-Trimethylbenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2-Dibromo-3-chloropropane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2-Dibromoethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2-Dichlorobenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2-Dichloroethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,2-Dichloropropane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,3,5-Trimethylbenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,3-Dichlorobenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,3-Dichloropropane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
1,4-Dichlorobenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
2,2-Dichloropropane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
2-Butanone	ND	51.9		µg/Kg-dry	1	7/21/2016 10:11:00 PM
2-Chlorotoluene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
2-Hexanone	ND	26.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
4-Chlorotoluene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
4-Isopropyltoluene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
4-Methyl-2-pentanone	ND	51.9		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Acetone	ND	130		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Benzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Bromobenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Bromochloromethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Bromodichloromethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Bromoform	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Bromomethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Carbon Disulfide	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Carbon tetrachloride	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Chlorobenzene	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM
Chloroethane	ND	13.0		µg/Kg-dry	1	7/21/2016 10:11:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Chloromethane	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
cis-1,2-Dichloroethene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
cis-1,3-Dichloropropene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Dibromochloromethane	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Dibromomethane	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Dichlorodifluoromethane	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Ethylbenzene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Hexachlorobutadiene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Isopropylbenzene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
m,p-Xylene	ND	26.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Methyl tert-butyl ether	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Methylene Chloride	ND	64.9	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Naphthalene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
n-Butylbenzene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
n-Propylbenzene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
o-Xylene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
sec-Butylbenzene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Styrene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
tert-Butylbenzene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Tetrachloroethene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Toluene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
trans-1,2-Dichloroethene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
trans-1,3-Dichloropropene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Trichloroethene	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Trichlorofluoromethane	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Trichlorotrifluoroethane	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Vinyl Chloride	ND	13.0	µg/Kg-dry	1	7/21/2016 10:11:00 PM
Surr: 1,2-Dichloroethane-d4	112	71.5-123	%REC	1	7/21/2016 10:11:00 PM
Surr: 4-Bromofluorobenzene	92.9	75.7-122	%REC	1	7/21/2016 10:11:00 PM
Surr: Dibromofluoromethane	111	64.3-124	%REC	1	7/21/2016 10:11:00 PM
Surr: Toluene-d8	86.3	74.9-120	%REC	1	7/21/2016 10:11:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-015

**Collection Date:** 7/19/2016 10:15:00 AM

**Client Sample ID:** B-5(10')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,1,1-Trichloroethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,1,2,2-Tetrachloroethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,1,2-Trichloroethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,1-Dichloroethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,1-Dichloroethene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,1-Dichloropropene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2,3-Trichlorobenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2,3-Trichloropropane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2,4-Trichlorobenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2,4-Trimethylbenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2-Dibromo-3-chloropropane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2-Dibromoethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2-Dichlorobenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2-Dichloroethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,2-Dichloropropane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,3,5-Trimethylbenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,3-Dichlorobenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,3-Dichloropropane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
1,4-Dichlorobenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
2,2-Dichloropropane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
2-Butanone	ND	133		µg/Kg-dry	1	7/21/2016 8:01:00 PM
2-Chlorotoluene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
2-Hexanone	ND	66.5		µg/Kg-dry	1	7/21/2016 8:01:00 PM
4-Chlorotoluene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
4-Isopropyltoluene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
4-Methyl-2-pentanone	ND	133		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Acetone	ND	333		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Benzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Bromobenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Bromochloromethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Bromodichloromethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Bromoform	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Bromomethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Carbon Disulfide	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Carbon tetrachloride	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Chlorobenzene	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM
Chloroethane	ND	33.3		µg/Kg-dry	1	7/21/2016 8:01:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Chloromethane	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
cis-1,2-Dichloroethene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
cis-1,3-Dichloropropene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Dibromochloromethane	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Dibromomethane	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Dichlorodifluoromethane	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Ethylbenzene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Hexachlorobutadiene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Isopropylbenzene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
m,p-Xylene	ND	66.5	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Methyl tert-butyl ether	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Methylene Chloride	ND	166	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Naphthalene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
n-Butylbenzene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
n-Propylbenzene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
o-Xylene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
sec-Butylbenzene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Styrene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
tert-Butylbenzene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Tetrachloroethene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Toluene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
trans-1,2-Dichloroethene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
trans-1,3-Dichloropropene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Trichloroethene	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Trichlorofluoromethane	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Trichlorotrifluoroethane	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Vinyl Chloride	ND	33.3	µg/Kg-dry	1	7/21/2016 8:01:00 PM
Surr: 1,2-Dichloroethane-d4	112	71.5-123	%REC	1	7/21/2016 8:01:00 PM
Surr: 4-Bromofluorobenzene	92.2	75.7-122	%REC	1	7/21/2016 8:01:00 PM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/21/2016 8:01:00 PM
Surr: Toluene-d8	84.6	74.9-120	%REC	1	7/21/2016 8:01:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-016

**Collection Date:** 7/19/2016 2:40:00 PM

**Client Sample ID:** B-7A(1)

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,1,1-Trichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,1,2,2-Tetrachloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,1,2-Trichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,1-Dichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,1-Dichloroethene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,1-Dichloropropene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2,3-Trichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2,3-Trichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2,4-Trichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2,4-Trimethylbenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2-Dibromo-3-chloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2-Dibromoethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2-Dichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2-Dichloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,2-Dichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,3,5-Trimethylbenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,3-Dichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,3-Dichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
1,4-Dichlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
2,2-Dichloropropane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
2-Butanone	ND	51.0		µg/Kg-dry	1	7/21/2016 8:33:00 PM
2-Chlorotoluene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
2-Hexanone	ND	25.5		µg/Kg-dry	1	7/21/2016 8:33:00 PM
4-Chlorotoluene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
4-Isopropyltoluene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
4-Methyl-2-pentanone	ND	51.0		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Acetone	ND	128		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Benzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Bromobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Bromochloromethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Bromodichloromethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Bromoform	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Bromomethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Carbon Disulfide	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Carbon tetrachloride	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Chlorobenzene	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM
Chloroethane	ND	12.8		µg/Kg-dry	1	7/21/2016 8:33:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Chloromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
cis-1,2-Dichloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
cis-1,3-Dichloropropene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Dibromochloromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Dibromomethane	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Dichlorodifluoromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Ethylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Hexachlorobutadiene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Isopropylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
m,p-Xylene	ND	25.5	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Methyl tert-butyl ether	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Methylene Chloride	ND	63.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Naphthalene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
n-Butylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
n-Propylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
o-Xylene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
sec-Butylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Styrene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
tert-Butylbenzene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Tetrachloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Toluene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
trans-1,2-Dichloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
trans-1,3-Dichloropropene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Trichloroethene	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Trichlorofluoromethane	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Trichlorotrifluoroethane	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Vinyl Chloride	ND	12.8	µg/Kg-dry	1	7/21/2016 8:33:00 PM
Surr: 1,2-Dichloroethane-d4	113	71.5-123	%REC	1	7/21/2016 8:33:00 PM
Surr: 4-Bromofluorobenzene	92.1	75.7-122	%REC	1	7/21/2016 8:33:00 PM
Surr: Dibromofluoromethane	113	64.3-124	%REC	1	7/21/2016 8:33:00 PM
Surr: Toluene-d8	85.9	74.9-120	%REC	1	7/21/2016 8:33:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-017

**Collection Date:** 7/19/2016 2:50:00 PM

**Client Sample ID:** B-7A(5')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,1,1-Trichloroethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,1,2,2-Tetrachloroethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,1,2-Trichloroethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,1-Dichloroethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,1-Dichloroethene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,1-Dichloropropene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2,3-Trichlorobenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2,3-Trichloropropane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2,4-Trichlorobenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2,4-Trimethylbenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2-Dibromo-3-chloropropane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2-Dibromoethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2-Dichlorobenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2-Dichloroethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,2-Dichloropropane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,3,5-Trimethylbenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,3-Dichlorobenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,3-Dichloropropane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
1,4-Dichlorobenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
2,2-Dichloropropane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
2-Butanone	ND	109		µg/Kg-dry	1	7/21/2016 9:06:00 PM
2-Chlorotoluene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
2-Hexanone	ND	54.3		µg/Kg-dry	1	7/21/2016 9:06:00 PM
4-Chlorotoluene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
4-Isopropyltoluene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
4-Methyl-2-pentanone	ND	109		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Acetone	ND	271		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Benzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Bromobenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Bromochloromethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Bromodichloromethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Bromoform	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Bromomethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Carbon Disulfide	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Carbon tetrachloride	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Chlorobenzene	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM
Chloroethane	ND	27.1		µg/Kg-dry	1	7/21/2016 9:06:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Chloromethane	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
cis-1,2-Dichloroethene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
cis-1,3-Dichloropropene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Dibromochloromethane	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Dibromomethane	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Dichlorodifluoromethane	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Ethylbenzene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Hexachlorobutadiene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Isopropylbenzene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
m,p-Xylene	ND	54.3	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Methyl tert-butyl ether	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Methylene Chloride	ND	136	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Naphthalene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
n-Butylbenzene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
n-Propylbenzene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
o-Xylene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
sec-Butylbenzene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Styrene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
tert-Butylbenzene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Tetrachloroethene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Toluene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
trans-1,2-Dichloroethene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
trans-1,3-Dichloropropene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Trichloroethene	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Trichlorofluoromethane	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Trichlorotrifluoroethane	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Vinyl Chloride	ND	27.1	µg/Kg-dry	1	7/21/2016 9:06:00 PM
Surr: 1,2-Dichloroethane-d4	114	71.5-123	%REC	1	7/21/2016 9:06:00 PM
Surr: 4-Bromofluorobenzene	91.8	75.7-122	%REC	1	7/21/2016 9:06:00 PM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/21/2016 9:06:00 PM
Surr: Toluene-d8	83.4	74.9-120	%REC	1	7/21/2016 9:06:00 PM



# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-018

**Collection Date:** 7/19/2016 3:00:00 PM

**Client Sample ID:** B-7B(3')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,1,1-Trichloroethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,1,2,2-Tetrachloroethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,1,2-Trichloroethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,1-Dichloroethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,1-Dichloroethene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,1-Dichloropropene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2,3-Trichlorobenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2,3-Trichloropropane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2,4-Trichlorobenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2,4-Trimethylbenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2-Dibromo-3-chloropropane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2-Dibromoethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2-Dichlorobenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2-Dichloroethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,2-Dichloropropane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,3,5-Trimethylbenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,3-Dichlorobenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,3-Dichloropropane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
1,4-Dichlorobenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
2,2-Dichloropropane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
2-Butanone	ND	130		µg/Kg-dry	1	7/21/2016 9:38:00 PM
2-Chlorotoluene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
2-Hexanone	ND	65.1		µg/Kg-dry	1	7/21/2016 9:38:00 PM
4-Chlorotoluene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
4-Isopropyltoluene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
4-Methyl-2-pentanone	ND	130		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Acetone	ND	326		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Benzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Bromobenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Bromochloromethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Bromodichloromethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Bromoform	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Bromomethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Carbon Disulfide	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Carbon tetrachloride	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Chlorobenzene	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM
Chloroethane	ND	32.6		µg/Kg-dry	1	7/21/2016 9:38:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Chloromethane	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
cis-1,2-Dichloroethene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
cis-1,3-Dichloropropene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Dibromochloromethane	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Dibromomethane	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Dichlorodifluoromethane	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Ethylbenzene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Hexachlorobutadiene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Isopropylbenzene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
m,p-Xylene	ND	65.1	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Methyl tert-butyl ether	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Methylene Chloride	ND	163	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Naphthalene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
n-Butylbenzene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
n-Propylbenzene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
o-Xylene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
sec-Butylbenzene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Styrene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
tert-Butylbenzene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Tetrachloroethene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Toluene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
trans-1,2-Dichloroethene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
trans-1,3-Dichloropropene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Trichloroethene	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Trichlorofluoromethane	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Trichlorotrifluoroethane	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Vinyl Chloride	ND	32.6	µg/Kg-dry	1	7/21/2016 9:38:00 PM
Surr: 1,2-Dichloroethane-d4	114	71.5-123	%REC	1	7/21/2016 9:38:00 PM
Surr: 4-Bromofluorobenzene	93.7	75.7-122	%REC	1	7/21/2016 9:38:00 PM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/21/2016 9:38:00 PM
Surr: Toluene-d8	86.4	74.9-120	%REC	1	7/21/2016 9:38:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-019

**Collection Date:** 7/19/2016 2:30:00 PM

**Client Sample ID:** B-8B(3-4')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	39.0		µg/Kg-dry	1	7/25/2016 6:21:00 PM
Surr: 2-Fluorobiphenyl	85.7	52.6-113.2		%REC	1	7/25/2016 6:21:00 PM
Surr: 4-Terphenyl-d14	83.0	49.8-118		%REC	1	7/25/2016 6:21:00 PM
Surr: Nitrobenzene-d5	68.4	44.8-103		%REC	1	7/25/2016 6:21:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,1,1-Trichloroethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,1,2,2-Tetrachloroethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,1,2-Trichloroethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,1-Dichloroethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,1-Dichloroethene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,1-Dichloropropene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2,3-Trichlorobenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2,3-Trichloropropane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2,4-Trichlorobenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2,4-Trimethylbenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2-Dibromo-3-chloropropane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2-Dibromoethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2-Dichlorobenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2-Dichloroethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,2-Dichloropropane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,3,5-Trimethylbenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,3-Dichlorobenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,3-Dichloropropane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
1,4-Dichlorobenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
2,2-Dichloropropane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
2-Butanone	ND	45.7		µg/Kg-dry	1	7/25/2016 11:28:00 AM
2-Chlorotoluene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
2-Hexanone	ND	22.8		µg/Kg-dry	1	7/25/2016 11:28:00 AM
4-Chlorotoluene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
4-Isopropyltoluene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
4-Methyl-2-pentanone	ND	45.7		µg/Kg-dry	1	7/25/2016 11:28:00 AM
Acetone	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
Benzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
Bromobenzene	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
Bromochloromethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM
Bromodichloromethane	ND	11.4		µg/Kg-dry	1	7/25/2016 11:28:00 AM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Bromomethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Carbon Disulfide	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Carbon tetrachloride	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Chlorobenzene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Chloroethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Chloroform	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Chloromethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
cis-1,2-Dichloroethene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
cis-1,3-Dichloropropene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Dibromochloromethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Dibromomethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Dichlorodifluoromethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Ethylbenzene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Hexachlorobutadiene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Isopropylbenzene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
m,p-Xylene	ND	22.8	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Methyl tert-butyl ether	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Methylene Chloride	ND	57.1	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Naphthalene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
n-Butylbenzene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
n-Propylbenzene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
o-Xylene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
sec-Butylbenzene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Styrene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
tert-Butylbenzene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Tetrachloroethene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Toluene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
trans-1,2-Dichloroethene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
trans-1,3-Dichloropropene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Trichloroethene	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Trichlorofluoromethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Trichlorotrifluoroethane	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Vinyl Chloride	ND	11.4	µg/Kg-dry	1	7/25/2016 11:28:00 AM
Surr: 1,2-Dichloroethane-d4	107	71.5-123	%REC	1	7/25/2016 11:28:00 AM
Surr: 4-Bromofluorobenzene	93.4	75.7-122	%REC	1	7/25/2016 11:28:00 AM
Surr: Dibromofluoromethane	111	64.3-124	%REC	1	7/25/2016 11:28:00 AM
Surr: Toluene-d8	83.1	74.9-120	%REC	1	7/25/2016 11:28:00 AM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-020

**Collection Date:** 7/19/2016 2:35:00 PM

**Client Sample ID:** B-8B(6')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	41.4		µg/Kg-dry	1	7/22/2016 4:51:00 PM
Surr: 2-Fluorobiphenyl	72.8	52.6-113.2		%REC	1	7/22/2016 4:51:00 PM
Surr: 4-Terphenyl-d14	74.6	49.8-118		%REC	1	7/22/2016 4:51:00 PM
Surr: Nitrobenzene-d5	66.8	44.8-103		%REC	1	7/22/2016 4:51:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,1,1-Trichloroethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,1,2,2-Tetrachloroethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,1,2-Trichloroethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,1-Dichloroethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,1-Dichloroethene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,1-Dichloropropene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2,3-Trichlorobenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2,3-Trichloropropane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2,4-Trichlorobenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2,4-Trimethylbenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2-Dibromo-3-chloropropane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2-Dibromoethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2-Dichlorobenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2-Dichloroethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,2-Dichloropropane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,3,5-Trimethylbenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,3-Dichlorobenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,3-Dichloropropane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
1,4-Dichlorobenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
2,2-Dichloropropane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
2-Butanone	ND	57.5		µg/Kg-dry	1	7/21/2016 10:43:00 PM
2-Chlorotoluene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
2-Hexanone	ND	28.8		µg/Kg-dry	1	7/21/2016 10:43:00 PM
4-Chlorotoluene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
4-Isopropyltoluene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
4-Methyl-2-pentanone	ND	57.5		µg/Kg-dry	1	7/21/2016 10:43:00 PM
Acetone	ND	144		µg/Kg-dry	1	7/21/2016 10:43:00 PM
Benzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
Bromobenzene	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
Bromochloromethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM
Bromodichloromethane	ND	14.4		µg/Kg-dry	1	7/21/2016 10:43:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Bromomethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Carbon Disulfide	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Carbon tetrachloride	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Chlorobenzene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Chloroethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Chloroform	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Chloromethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
cis-1,2-Dichloroethene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
cis-1,3-Dichloropropene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Dibromochloromethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Dibromomethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Dichlorodifluoromethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Ethylbenzene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Hexachlorobutadiene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Isopropylbenzene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
m,p-Xylene	ND	28.8	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Methyl tert-butyl ether	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Methylene Chloride	ND	71.9	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Naphthalene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
n-Butylbenzene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
n-Propylbenzene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
o-Xylene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
sec-Butylbenzene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Styrene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
tert-Butylbenzene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Tetrachloroethene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Toluene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
trans-1,2-Dichloroethene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
trans-1,3-Dichloropropene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Trichloroethene	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Trichlorofluoromethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Trichlorotrifluoroethane	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Vinyl Chloride	ND	14.4	µg/Kg-dry	1	7/21/2016 10:43:00 PM
Surr: 1,2-Dichloroethane-d4	110	71.5-123	%REC	1	7/21/2016 10:43:00 PM
Surr: 4-Bromofluorobenzene	93.6	75.7-122	%REC	1	7/21/2016 10:43:00 PM
Surr: Dibromofluoromethane	110	64.3-124	%REC	1	7/21/2016 10:43:00 PM
Surr: Toluene-d8	85.9	74.9-120	%REC	1	7/21/2016 10:43:00 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-021

**Collection Date:** 7/19/2016 8:45:00 AM

**Client Sample ID:** LS-2

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>ICP/MS METALS-TOTAL RECOVERABLE</b>		<b>SW6020A</b>				Analyst: <b>jw</b>
Lead	27700	261		µg/Kg-dry	10	7/25/2016 12:56:03 PM

**Lab ID:** 1607132-022

**Collection Date:** 7/19/2016 8:50:00 AM

**Client Sample ID:** LS-1

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>ICP/MS METALS-TOTAL RECOVERABLE</b>		<b>SW6020A</b>				Analyst: <b>jw</b>
Lead	345000	3160		µg/Kg-dry	100	7/25/2016 4:22:17 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-023

**Collection Date:** 7/19/2016 3:20:00 PM

**Client Sample ID:** B-11(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	37.3		µg/Kg-dry	1	7/25/2016 6:47:00 PM
Surr: 2-Fluorobiphenyl	98.9	52.6-113.2		%REC	1	7/25/2016 6:47:00 PM
Surr: 4-Terphenyl-d14	104	49.8-118		%REC	1	7/25/2016 6:47:00 PM
Surr: Nitrobenzene-d5	68.0	44.8-103		%REC	1	7/25/2016 6:47:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,1,1-Trichloroethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,1,2,2-Tetrachloroethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,1,2-Trichloroethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,1-Dichloroethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,1-Dichloroethene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,1-Dichloropropene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2,3-Trichlorobenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2,3-Trichloropropane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2,4-Trichlorobenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2,4-Trimethylbenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2-Dibromo-3-chloropropane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2-Dibromoethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2-Dichlorobenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2-Dichloroethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,2-Dichloropropane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,3,5-Trimethylbenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,3-Dichlorobenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,3-Dichloropropane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
1,4-Dichlorobenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
2,2-Dichloropropane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
2-Butanone	ND	37.8		µg/Kg-dry	1	7/22/2016 12:52:00 AM
2-Chlorotoluene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
2-Hexanone	ND	18.9		µg/Kg-dry	1	7/22/2016 12:52:00 AM
4-Chlorotoluene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
4-Isopropyltoluene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
4-Methyl-2-pentanone	ND	37.8		µg/Kg-dry	1	7/22/2016 12:52:00 AM
Acetone	ND	94.5		µg/Kg-dry	1	7/22/2016 12:52:00 AM
Benzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
Bromobenzene	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
Bromochloromethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM
Bromodichloromethane	ND	9.45		µg/Kg-dry	1	7/22/2016 12:52:00 AM



# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Bromoform	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Bromomethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Carbon Disulfide	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Carbon tetrachloride	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Chlorobenzene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Chloroethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Chloroform	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Chloromethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
cis-1,2-Dichloroethene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
cis-1,3-Dichloropropene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Dibromochloromethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Dibromomethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Dichlorodifluoromethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Ethylbenzene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Hexachlorobutadiene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Isopropylbenzene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
m,p-Xylene	ND	18.9	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Methyl tert-butyl ether	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Methylene Chloride	ND	47.3	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Naphthalene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
n-Butylbenzene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
n-Propylbenzene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
o-Xylene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
sec-Butylbenzene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Styrene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
tert-Butylbenzene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Tetrachloroethene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Toluene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
trans-1,2-Dichloroethene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
trans-1,3-Dichloropropene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Trichloroethene	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Trichlorofluoromethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Trichlorotrifluoroethane	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Vinyl Chloride	ND	9.45	µg/Kg-dry	1	7/22/2016 12:52:00 AM
Surr: 1,2-Dichloroethane-d4	111	71.5-123	%REC	1	7/22/2016 12:52:00 AM
Surr: 4-Bromofluorobenzene	93.4	75.7-122	%REC	1	7/22/2016 12:52:00 AM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/22/2016 12:52:00 AM
Surr: Toluene-d8	87.1	74.9-120	%REC	1	7/22/2016 12:52:00 AM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-024

**Collection Date:** 7/19/2016 3:30:00 PM

**Client Sample ID:** B-11(12')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>						Analyst: <b>CK</b>
Bis(2-ethylhexyl)phthalate	ND	37.0		µg/Kg-dry	1	7/22/2016 5:17:00 PM
Surr: 2-Fluorobiphenyl	82.9	52.6-113.2		%REC	1	7/22/2016 5:17:00 PM
Surr: 4-Terphenyl-d14	82.4	49.8-118		%REC	1	7/22/2016 5:17:00 PM
Surr: Nitrobenzene-d5	66.2	44.8-103		%REC	1	7/22/2016 5:17:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>						Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,1,1-Trichloroethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,1,2,2-Tetrachloroethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,1,2-Trichloroethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,1-Dichloroethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,1-Dichloroethene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,1-Dichloropropene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2,3-Trichlorobenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2,3-Trichloropropane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2,4-Trichlorobenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2,4-Trimethylbenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2-Dibromo-3-chloropropane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2-Dibromoethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2-Dichlorobenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2-Dichloroethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,2-Dichloropropane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,3,5-Trimethylbenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,3-Dichlorobenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,3-Dichloropropane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
1,4-Dichlorobenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
2,2-Dichloropropane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
2-Butanone	ND	44.9		µg/Kg-dry	1	7/22/2016 1:24:00 AM
2-Chlorotoluene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
2-Hexanone	ND	22.5		µg/Kg-dry	1	7/22/2016 1:24:00 AM
4-Chlorotoluene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
4-Isopropyltoluene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
4-Methyl-2-pentanone	ND	44.9		µg/Kg-dry	1	7/22/2016 1:24:00 AM
Acetone	ND	112		µg/Kg-dry	1	7/22/2016 1:24:00 AM
Benzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
Bromobenzene	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
Bromochloromethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM
Bromodichloromethane	ND	11.2		µg/Kg-dry	1	7/22/2016 1:24:00 AM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Bromomethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Carbon Disulfide	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Carbon tetrachloride	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Chlorobenzene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Chloroethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Chloroform	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Chloromethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
cis-1,2-Dichloroethene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
cis-1,3-Dichloropropene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Dibromochloromethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Dibromomethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Dichlorodifluoromethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Ethylbenzene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Hexachlorobutadiene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Isopropylbenzene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
m,p-Xylene	ND	22.5	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Methyl tert-butyl ether	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Methylene Chloride	ND	56.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Naphthalene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
n-Butylbenzene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
n-Propylbenzene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
o-Xylene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
sec-Butylbenzene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Styrene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
tert-Butylbenzene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Tetrachloroethene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Toluene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
trans-1,2-Dichloroethene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
trans-1,3-Dichloropropene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Trichloroethene	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Trichlorofluoromethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Trichlorotrifluoroethane	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Vinyl Chloride	ND	11.2	µg/Kg-dry	1	7/22/2016 1:24:00 AM
Surr: 1,2-Dichloroethane-d4	111	71.5-123	%REC	1	7/22/2016 1:24:00 AM
Surr: 4-Bromofluorobenzene	93.6	75.7-122	%REC	1	7/22/2016 1:24:00 AM
Surr: Dibromofluoromethane	110	64.3-124	%REC	1	7/22/2016 1:24:00 AM
Surr: Toluene-d8	86.5	74.9-120	%REC	1	7/22/2016 1:24:00 AM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-025

**Collection Date:** 7/19/2016 11:00:00 AM

**Client Sample ID:** B-2(40')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,1,1-Trichloroethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,1,2,2-Tetrachloroethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,1,2-Trichloroethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,1-Dichloroethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,1-Dichloroethene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,1-Dichloropropene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2,3-Trichlorobenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2,3-Trichloropropane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2,4-Trichlorobenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2,4-Trimethylbenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2-Dibromo-3-chloropropane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2-Dibromoethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2-Dichlorobenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2-Dichloroethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,2-Dichloropropane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,3,5-Trimethylbenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,3-Dichlorobenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,3-Dichloropropane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
1,4-Dichlorobenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
2,2-Dichloropropane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
2-Butanone	ND	41.4		µg/Kg-dry	1	7/22/2016 1:56:00 AM
2-Chlorotoluene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
2-Hexanone	ND	20.7		µg/Kg-dry	1	7/22/2016 1:56:00 AM
4-Chlorotoluene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
4-Isopropyltoluene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
4-Methyl-2-pentanone	ND	41.4		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Acetone	ND	103		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Benzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Bromobenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Bromochloromethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Bromodichloromethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Bromoform	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Bromomethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Carbon Disulfide	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Carbon tetrachloride	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Chlorobenzene	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM
Chloroethane	ND	10.3		µg/Kg-dry	1	7/22/2016 1:56:00 AM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>	Analyst: <b>CK</b>			
Chloroform	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Chloromethane	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
cis-1,2-Dichloroethene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
cis-1,3-Dichloropropene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Dibromochloromethane	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Dibromomethane	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Dichlorodifluoromethane	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Ethylbenzene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Hexachlorobutadiene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Isopropylbenzene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
m,p-Xylene	ND	20.7	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Methyl tert-butyl ether	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Methylene Chloride	ND	51.7	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Naphthalene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
n-Butylbenzene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
n-Propylbenzene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
o-Xylene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
sec-Butylbenzene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Styrene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
tert-Butylbenzene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Tetrachloroethene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Toluene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
trans-1,2-Dichloroethene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
trans-1,3-Dichloropropene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Trichloroethene	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Trichlorofluoromethane	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Trichlorotrifluoroethane	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Vinyl Chloride	ND	10.3	µg/Kg-dry	1	7/22/2016 1:56:00 AM	
Surr: 1,2-Dichloroethane-d4	110	71.5-123	%REC	1	7/22/2016 1:56:00 AM	
Surr: 4-Bromofluorobenzene	95.0	75.7-122	%REC	1	7/22/2016 1:56:00 AM	
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/22/2016 1:56:00 AM	
Surr: Toluene-d8	87.0	74.9-120	%REC	1	7/22/2016 1:56:00 AM	

**Lab ID:** 1607132-026

**Collection Date:** 7/19/2016 12:40:00 PM

**Client Sample ID:** B-3(11')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **knb**

Hold	ND				1	7/29/2016 3:10:49 PM
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# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-027 **Collection Date:** 7/19/2016 3:00:00 PM  
**Client Sample ID:** B-8C(1') **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>HOLD PER CLIENT REQUEST</b>		<b>PER CLIENT</b>				Analyst: <b>knb</b>
Hold	ND				1	7/29/2016 3:10:49 PM

**Lab ID:** 1607132-028 **Collection Date:** 7/19/2016 3:10:00 PM  
**Client Sample ID:** B-8C(3-4') **Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>HOLD PER CLIENT REQUEST</b>		<b>PER CLIENT</b>				Analyst: <b>knb</b>
Hold	ND				1	7/29/2016 3:10:49 PM

# Specialty Analytical

Date Reported: 29-Jul-16

**CLIENT:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**Lab Order:** 1607132

**Lab ID:** 1607132-029

**Collection Date:** 7/19/2016 3:20:00 PM

**Client Sample ID:** B-8C(9')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,1,1-Trichloroethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,1,2,2-Tetrachloroethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,1,2-Trichloroethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,1-Dichloroethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,1-Dichloroethene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,1-Dichloropropene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2,3-Trichlorobenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2,3-Trichloropropane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2,4-Trichlorobenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2,4-Trimethylbenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2-Dibromo-3-chloropropane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2-Dibromoethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2-Dichlorobenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2-Dichloroethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,2-Dichloropropane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,3,5-Trimethylbenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,3-Dichlorobenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,3-Dichloropropane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
1,4-Dichlorobenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
2,2-Dichloropropane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
2-Butanone	ND	50.3		µg/Kg-dry	1	7/22/2016 2:29:00 AM
2-Chlorotoluene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
2-Hexanone	ND	25.1		µg/Kg-dry	1	7/22/2016 2:29:00 AM
4-Chlorotoluene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
4-Isopropyltoluene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
4-Methyl-2-pentanone	ND	50.3		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Acetone	ND	126		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Benzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Bromobenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Bromochloromethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Bromodichloromethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Bromoform	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Bromomethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Carbon Disulfide	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Carbon tetrachloride	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Chlorobenzene	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM
Chloroethane	ND	12.6		µg/Kg-dry	1	7/22/2016 2:29:00 AM

# Specialty Analytical

Date Reported: 29-Jul-16

CLIENT: Bergerabam  
Project: Ft. James Specialty Chemicals

Lab Order: 1607132

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Chloromethane	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
cis-1,2-Dichloroethene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
cis-1,3-Dichloropropene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Dibromochloromethane	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Dibromomethane	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Dichlorodifluoromethane	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Ethylbenzene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Hexachlorobutadiene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Isopropylbenzene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
m,p-Xylene	ND	25.1	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Methyl tert-butyl ether	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Methylene Chloride	ND	62.8	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Naphthalene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
n-Butylbenzene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
n-Propylbenzene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
o-Xylene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
sec-Butylbenzene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Styrene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
tert-Butylbenzene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Tetrachloroethene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Toluene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
trans-1,2-Dichloroethene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
trans-1,3-Dichloropropene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Trichloroethene	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Trichlorofluoromethane	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Trichlorotrifluoroethane	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Vinyl Chloride	ND	12.6	µg/Kg-dry	1	7/22/2016 2:29:00 AM
Surr: 1,2-Dichloroethane-d4	110	71.5-123	%REC	1	7/22/2016 2:29:00 AM
Surr: 4-Bromofluorobenzene	94.5	75.7-122	%REC	1	7/22/2016 2:29:00 AM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/22/2016 2:29:00 AM
Surr: Toluene-d8	86.9	74.9-120	%REC	1	7/22/2016 2:29:00 AM



# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 6020\_S

Sample ID: <b>ICV</b>	SampType: <b>ICV</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26015</b>						
Client ID: <b>ICV</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350698</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 4910 25.0 5000 0 98.2 90 110

Sample ID: <b>MB-11676</b>	SampType: <b>MBLK</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/22/2016</b>	RunNo: <b>26015</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350698</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead ND 25.0

Sample ID: <b>LCS-11676</b>	SampType: <b>LCS</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/22/2016</b>	RunNo: <b>26015</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350700</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 5330 25.0 5000 0 107 80 120

Sample ID: <b>1607143-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/22/2016</b>	RunNo: <b>26015</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350702</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 12600 244 19930 45.1 20 R

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 1 of 29  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 6020\_S

Sample ID: <b>1607143-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/22/2016</b>	RunNo: <b>26015</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350703</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	16800	247	4947	19930	-62.6	70	130				S

Sample ID: <b>1607143-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/22/2016</b>	RunNo: <b>26015</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350704</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	18200	249	4973	19930	-34.7	70	130	16830	7.83	20	S

Sample ID: <b>ICV</b>	SampType: <b>ICV</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26015</b>						
Client ID: <b>ICV</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350761</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4830	25.0	5000	0	96.6	90	110				

Sample ID: <b>CCV</b>	SampType: <b>CCV</b>	TestCode: <b>6020_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26015</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11676</b>	TestNo: <b>SW6020A</b>	<b>SW3050B</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350767</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4790	25.0	5000	0	95.8	90	110				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 2 of 29  
O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>CCV MSVWS-2055</b>		SampType: <b>CCV</b>		TestCode: <b>8260_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>25982</b>	
Client ID: <b>CCV</b>		Batch ID: <b>11672</b>		TestNo: <b>SW8260B</b>		<b>SW5035A</b>		Analysis Date: <b>7/21/2016</b>		SeqNo: <b>350338</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	71.0	10.0	80.00	0	88.7	80	120				
1,2-Dichloropropane	70.6	10.0	80.00	0	88.3	80	120				
Chloroform	75.5	10.0	80.00	0	94.4	80	120				
Ethylbenzene	69.7	10.0	80.00	0	87.1	80	120				
Toluene	78.6	10.0	80.00	0	98.2	80	120				
Vinyl Chloride	70.7	10.0	80.00	0	88.4	80	120				

Sample ID: <b>LCS MSVWS-2056</b>		SampType: <b>LCS</b>		TestCode: <b>8260_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>25982</b>	
Client ID: <b>LCSS</b>		Batch ID: <b>11672</b>		TestNo: <b>SW8260B</b>		<b>SW5035A</b>		Analysis Date: <b>7/21/2016</b>		SeqNo: <b>350339</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	37.0	10.0	40.00	0	92.6	82.4	121				
Benzene	36.8	10.0	40.00	0	92.0	74.3	136				
Chlorobenzene	36.1	10.0	40.00	0	90.3	85.9	121				
Toluene	41.2	10.0	40.00	0	103	85.1	123				
Trichloroethene	36.0	10.0	40.00	0	89.9	84.8	119				

Sample ID: <b>LCSD MSVWS-2056</b>		SampType: <b>LCSD</b>		TestCode: <b>8260_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>25982</b>	
Client ID: <b>LCSS02</b>		Batch ID: <b>11672</b>		TestNo: <b>SW8260B</b>		<b>SW5035A</b>		Analysis Date: <b>7/21/2016</b>		SeqNo: <b>350340</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	36.0	10.0	40.00	0	90.1	82.4	121	37.04	2.71	20	
Benzene	35.8	10.0	40.00	0	89.4	74.3	136	36.81	2.92	20	

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 3 of 29  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>LCSD MSVWS-2056</b>	SampType: <b>LCSD</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/21/2016</b>	SeqNo: <b>350340</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	34.7	10.0	40.00	0	86.8	85.9	121	36.12	3.92	20	
Toluene	39.5	10.0	40.00	0	98.7	85.1	123	41.24	4.36	20	
Trichloroethene	35.0	10.0	40.00	0	87.4	84.8	119	35.97	2.85	20	

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/21/2016</b>	SeqNo: <b>350341</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/21/2016</b>	SeqNo: <b>350341</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/21/2016</b>	SeqNo: <b>350341</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene Chloride	ND	50.0									
Naphthalene	ND	10.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Trichlorotrifluoroethane	ND	10.0									
Vinyl Chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	107		100.0		107	71.5	123				
Surr: 4-Bromofluorobenzene	90.4		100.0		90.4	75.7	122				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 6 of 29  
O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132  
29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/21/2016</b>	SeqNo: <b>350341</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	104		100.0		104	64.3	124				
Surr: Toluene-d8	88.6		100.0		88.6	74.9	120				

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>CCB</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350568</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 7 of 29  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: CCB	SampType: CCB	TestCode: 8260_5035	Units: µg/Kg	Prep Date:	RunNo: 25982						
Client ID: CCB	Batch ID: 11672	TestNo: SW8260B	SW5035A	Analysis Date: 7/22/2016	SeqNo: 350568						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco



# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: CCB	SampType: CCB	TestCode: 8260_5035	Units: µg/Kg	Prep Date:	RunNo: 25982						
Client ID: CCB	Batch ID: 11672	TestNo: SW8260B	SW5035A	Analysis Date: 7/22/2016	SeqNo: 350568						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene Chloride	ND	50.0									
Naphthalene	ND	10.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Trichlorotrifluoroethane	ND	10.0									
Vinyl Chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	96.2		100.0		96.2	71.5	123				
Surr: 4-Bromofluorobenzene	91.1		100.0		91.1	75.7	122				
Surr: Dibromofluoromethane	107		100.0		107	64.3	124				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>CCB</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350568</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	86.8		100.0		86.8	74.9	120				

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>25982</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11672</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/21/2016</b>	SeqNo: <b>350572</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	67.0	10.0	80.00	0	83.7	80	120				
1,2-Dichloropropane	69.9	10.0	80.00	0	87.4	80	120				
Chloroform	75.8	10.0	80.00	0	94.8	80	120				
Ethylbenzene	68.4	10.0	80.00	0	85.6	80	120				
Toluene	72.7	10.0	80.00	0	90.8	80	120				
Vinyl Chloride	68.4	10.0	80.00	0	85.4	80	120				

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350821</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	74.5	10.0	80.00	0	93.2	80	120				
1,2-Dichloropropane	71.5	10.0	80.00	0	89.4	80	120				
Chloroform	81.0	10.0	80.00	0	101	80	120				
Ethylbenzene	69.6	10.0	80.00	0	87.0	80	120				
Toluene	77.8	10.0	80.00	0	97.2	80	120				
Vinyl Chloride	70.3	10.0	80.00	0	87.9	80	120				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 10 of 29
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# QC SUMMARY REPORT

WO#: 1607132  
29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350821</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: <b>LCS MSVWS-2056</b>	SampType: <b>LCS</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350822</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	36.7	10.0	40.00	0	91.9	82.4	121				
Benzene	37.1	10.0	40.00	0	92.8	74.3	136				
Chlorobenzene	35.7	10.0	40.00	0	89.2	85.9	121				
Toluene	40.0	10.0	40.00	0	99.9	85.1	123				
Trichloroethene	36.2	10.0	40.00	0	90.5	87.8	119				

Sample ID: <b>LCSD MSVWS-2056</b>	SampType: <b>LCSD</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350823</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	35.3	10.0	40.00	0	88.2	82.4	121	36.74	4.00	20	
Benzene	37.0	10.0	40.00	0	92.5	74.3	136	37.14	0.432	20	
Chlorobenzene	35.6	10.0	40.00	0	89.0	85.9	121	35.66	0.140	20	
Toluene	39.9	10.0	40.00	0	99.7	85.1	123	39.96	0.251	20	
Trichloroethene	36.3	10.0	40.00	0	90.8	87.8	119	36.21	0.303	20	

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 11 of 29  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132  
29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350824</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350824</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene Chloride	ND	50.0									
Naphthalene	ND	10.0									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132  
29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350824</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Trichlorotrifluoroethane	ND	10.0									
Vinyl Chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	100		100.0		100	71.5	123				
Surr: 4-Bromofluorobenzene	92.3		100.0		92.3	75.7	122				
Surr: Dibromofluoromethane	107		100.0		107	64.3	124				
Surr: Toluene-d8	87.0		100.0		87.0	74.9	120				

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350855</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	75.9	10.0	80.00	0	94.9	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 14 of 29  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350855</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	73.0	10.0	80.00	0	91.3	80	120				
Chloroform	80.2	10.0	80.00	0	100	80	120				
Ethylbenzene	69.0	10.0	80.00	0	86.2	80	120				
Toluene	77.6	10.0	80.00	0	96.9	80	120				
Vinyl Chloride	65.6	10.0	80.00	0	81.9	80	120				

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCB</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350856</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 15 of 29  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: CCB	SampType: CCB	TestCode: 8260_5035	Units: µg/Kg	Prep Date:	RunNo: 26029						
Client ID: CCB	Batch ID: 11673	TestNo: SW8260B	SW5035A	Analysis Date: 7/25/2016	SeqNo: 350856						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 16 of 29  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco



# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: CCB	SampType: CCB	TestCode: 8260_5035	Units: µg/Kg	Prep Date:	RunNo: 26029						
Client ID: CCB	Batch ID: 11673	TestNo: SW8260B	SW5035A	Analysis Date: 7/25/2016	SeqNo: 350856						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene Chloride	ND	50.0									
Naphthalene	ND	10.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Trichlorotrifluoroethane	ND	10.0									
Vinyl Chloride	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 17 of 29  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_5035

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCB</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350856</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	99.6		100.0		99.6	71.5	123				
Surr: 4-Bromofluorobenzene	94.2		100.0		94.2	75.7	122				
Surr: Dibromofluoromethane	107		100.0		107	64.3	124				
Surr: Toluene-d8	85.1		100.0		85.1	74.9	120				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 18 of 29  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>CCV</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/18/2016</b>	SeqNo: <b>349597</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	43.4	1.00	40.00	0	108	80	120				
1,2-Dichloropropane	46.1	1.00	40.00	0	115	80	120				
Chloroform	37.7	1.00	40.00	0	94.2	80	120				
Ethylbenzene	37.0	1.00	40.00	0	92.4	80	120				
Toluene	36.5	1.00	40.00	0	91.3	80	120				
Vinyl chloride	40.5	1.00	40.00	0	101	80	120				

Sample ID: <b>LCS MSVWS-2056</b>	SampType: <b>LCS</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/18/2016</b>	SeqNo: <b>349598</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.6	1.00	40.00	0	104	61.2	135				
Benzene	42.1	0.300	40.00	0	105	76.8	125				
Chlorobenzene	34.3	1.00	40.00	0	85.7	84.1	116				
Toluene	35.9	1.00	40.00	0	89.7	82	122				
Trichloroethene	35.5	1.00	40.00	0	88.7	68.5	124				

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/18/2016</b>	SeqNo: <b>349599</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	1.00									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 19 of 29
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# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/18/2016</b>	SeqNo: <b>349599</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,1-Dichloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
1,1-Dichloropropene	ND	1.00									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,2-Dichloropropane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,3-Dichloropropane	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
2,2-Dichloropropane	ND	1.00									
2-Butanone	ND	10.0									
2-Chlorotoluene	ND	1.00									
2-Hexanone	ND	10.0									
4-Chlorotoluene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
4-Methyl-2-pentanone	ND	20.0									
Acetone	ND	50.0									

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 20 of 29  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/18/2016</b>	SeqNo: <b>349599</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acrylonitrile	ND	5.00									
Benzene	ND	0.300									
Bromobenzene	ND	1.00									
Bromochloromethane	ND	1.00									
Bromodichloromethane	ND	1.00									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon disulfide	ND	2.00									
Carbon tetrachloride	ND	1.00									
Chlorobenzene	ND	1.00									
Chloroethane	ND	1.00									
Chloroform	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Dibromochloromethane	ND	1.00									
Dibromomethane	ND	1.00									
Dichlorodifluoromethane	ND	1.00									
Ethylbenzene	ND	1.00									
Hexachlorobutadiene	ND	1.00									
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
Methylene chloride	ND	20.0									
Naphthalene	ND	1.00									
n-Butylbenzene	ND	1.00									

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 21 of 29  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132  
29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/18/2016</b>	SeqNo: <b>349599</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	1.00									
o-Xylene	ND	1.00									
sec-Butylbenzene	ND	1.00									
Styrene	ND	1.00									
tert-Butylbenzene	ND	1.00									
Tetrachloroethene	ND	1.00									
Toluene	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
Trichloroethene	ND	1.00									
Trichlorofluoromethane	ND	1.00									
Trichlorotrifluoroethane	ND	1.00									
Vinyl chloride	ND	1.00									
Surr: 1,2-Dichloroethane-d4	91.2		100.0		91.2	85.3	126				
Surr: 4-Bromofluorobenzene	105		100.0		105	78.1	120				
Surr: Dibromofluoromethane	95.3		100.0		95.3	84.2	122				
Surr: Toluene-d8	92.4		100.0		92.4	86.2	135				

Sample ID: <b>1607106-005AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/19/2016</b>	SeqNo: <b>349608</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	43.5	1.00	40.00	0	109	47.8	165				
Benzene	43.8	0.300	40.00	0	110	74.1	136				

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 22 of 29  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>1607106-005AMS</b>		SampType: <b>MS</b>		TestCode: <b>8260_W</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>25937</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>R25937</b>		TestNo: <b>SW8260B</b>				Analysis Date: <b>7/19/2016</b>		SeqNo: <b>349608</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	34.8	1.00	40.00	0	87.1	70.7	133				
Toluene	36.0	1.00	40.00	0	89.9	68.4	135				
Trichloroethene	36.8	1.00	40.00	0	92.1	50.8	164				

Sample ID: <b>1607106-005AMSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_W</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>25937</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>R25937</b>		TestNo: <b>SW8260B</b>				Analysis Date: <b>7/19/2016</b>		SeqNo: <b>349608</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	44.6	1.00	40.00	0	111	47.8	165	43.51	2.38	20	
Benzene	44.0	0.300	40.00	0	110	74.1	136	43.85	0.296	20	
Chlorobenzene	34.8	1.00	40.00	0	87.0	70.7	133	34.85	0.144	20	
Toluene	35.7	1.00	40.00	0	89.2	68.4	135	35.95	0.698	20	
Trichloroethene	37.1	1.00	40.00	0	92.8	50.8	164	36.85	0.703	20	

Sample ID: <b>CCV MSVWS-2055</b>		SampType: <b>CCV</b>		TestCode: <b>8260_W</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>25937</b>	
Client ID: <b>CCV</b>		Batch ID: <b>R25937</b>		TestNo: <b>SW8260B</b>				Analysis Date: <b>7/20/2016</b>		SeqNo: <b>349972</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	44.9	1.00	40.00	0	112	80	120				
1,2-Dichloropropane	42.7	1.00	40.00	0	107	80	120				
Chloroform	43.7	1.00	40.00	0	109	80	120				
Ethylbenzene	37.0	1.00	40.00	0	92.4	80	120				
Toluene	36.0	1.00	40.00	0	89.9	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 23 of 29  
 O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>CCV</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/20/2016</b>	SeqNo: <b>349972</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	38.4	1.00	40.00	0	96.1	80	120				

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>CCB</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/20/2016</b>	SeqNo: <b>349973</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,1-Dichloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
1,1-Dichloropropene	ND	1.00									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,2-Dichloropropane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 24 of 29
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# QC SUMMARY REPORT

WO#: 1607132  
29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>CCB</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/20/2016</b>	SeqNo: <b>349973</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichloropropane	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
2,2-Dichloropropane	ND	1.00									
2-Butanone	ND	10.0									
2-Chlorotoluene	ND	1.00									
2-Hexanone	ND	10.0									
4-Chlorotoluene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
4-Methyl-2-pentanone	ND	20.0									
Acetone	ND	50.0									
Acrylonitrile	ND	5.00									
Benzene	ND	0.300									
Bromobenzene	ND	1.00									
Bromochloromethane	ND	1.00									
Bromodichloromethane	ND	1.00									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon disulfide	ND	2.00									
Carbon tetrachloride	ND	1.00									
Chlorobenzene	ND	1.00									
Chloroethane	ND	1.00									
Chloroform	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Dibromochloromethane	ND	1.00									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 25 of 29
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# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8260\_W

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>25937</b>						
Client ID: <b>CCB</b>	Batch ID: <b>R25937</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/20/2016</b>	SeqNo: <b>349973</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	91.2		100.0		91.2	86.2	135				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8270BN\_S

Sample ID: <b>CCV MSSWS-1394</b>	SampType: <b>CCV</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26026</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350782</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate 35.4 1.00 40.00 0 88.6 80 120

Sample ID: <b>LCS-11670</b>	SampType: <b>LCS</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350783</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate 1220 33.3 1666 0 72.9 50 130

Sample ID: <b>1607132-006BMS</b>	SampType: <b>MS</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>B-1(13')</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350784</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate 1440 39.9 1995 0 71.9 50 130

Sample ID: <b>1607132-006BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>B-1(13')</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350785</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate 1450 39.9 1995 0 72.9 50 130 1435 1.30 30

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 28 of 29  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607132

29-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Ft. James Specialty Chemicals

**TestCode:** 8270BN\_S

Sample ID: <b>MB-11670</b>	SampType: <b>MBLK</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350786</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl)phthalate	ND	33.3									
Surr: 2-Fluorobiphenyl	2320		3333		69.7	52.6	93.2				
Surr: 4-Terphenyl-d14	2370		3333		71.1	49.8	118				
Surr: Nitrobenzene-d5	2350		3333		70.5	44.8	103				

Sample ID: <b>CCV MSSWS-1394</b>	SampType: <b>CCV</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26026</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350807</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl)phthalate	1100	33.3	1333	0	82.3	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

## KEY TO FLAGS

Rev. May 12, 2010

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- \* The result for this parameter was greater than the maximum contaminant level of the TCLP regulatory limit.



# Specialty Analytical

11711 SE Capps Road, Ste B  
Clackamas, Oregon 97015  
TEL: 503-607-1331 FAX: 503-607-1336  
Website: [www.specialtyanalytical.com](http://www.specialtyanalytical.com)

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July 28, 2016

Amber Roesler  
Bergerabam  
211 E 13th St  
Vancouver, WA 98660

TEL: (360) 823-6100

FAX:

RE: Fort James

Dear Amber Roesler:

Order No.: 1607145

Specialty Analytical received 25 sample(s) on 7/21/2016 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Marty French". The signature is fluid and cursive, with the first name being more prominent.

Marty French  
Lab Director

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

Lab ID: 1607145-001

Collection Date: 7/20/2016 11:50:00 AM

Client Sample ID: MW-5

Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>				Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
2-Butanone	ND	10.0		µg/L	1	7/26/2016 4:28:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
2-Hexanone	ND	10.0		µg/L	1	7/26/2016 4:28:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	7/26/2016 4:28:00 PM
Acetone	ND	50.0		µg/L	1	7/26/2016 4:28:00 PM
Acrylonitrile	ND	5.00		µg/L	1	7/26/2016 4:28:00 PM
Benzene	ND	0.300		µg/L	1	7/26/2016 4:28:00 PM
Bromobenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
Bromochloromethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
Bromoform	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
Bromomethane	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
Carbon disulfide	ND	2.00		µg/L	1	7/26/2016 4:28:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM
Chlorobenzene	ND	1.00		µg/L	1	7/26/2016 4:28:00 PM



# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANICS BY GC/MS

SW8260B

Analyst: CK

Chloroethane	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Chloroform	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Chloromethane	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
cis-1,2-Dichloroethene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
cis-1,3-Dichloropropene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Dibromochloromethane	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Dibromomethane	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Dichlorodifluoromethane	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Ethylbenzene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Hexachlorobutadiene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Isopropylbenzene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
m,p-Xylene	ND	2.00	µg/L	1	7/26/2016 4:28:00 PM
Methyl tert-butyl ether	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Methylene chloride	ND	20.0	µg/L	1	7/26/2016 4:28:00 PM
Naphthalene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
n-Butylbenzene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
n-Propylbenzene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
o-Xylene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
sec-Butylbenzene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Styrene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
tert-Butylbenzene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Tetrachloroethene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Toluene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
trans-1,2-Dichloroethene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
trans-1,3-Dichloropropene	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Trichloroethene	1.25	1.00	µg/L	1	7/26/2016 4:28:00 PM
Trichlorofluoromethane	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Trichlorotrifluoroethane	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Vinyl chloride	ND	1.00	µg/L	1	7/26/2016 4:28:00 PM
Surr: 1,2-Dichloroethane-d4	105	85.3-126	%REC	1	7/26/2016 4:28:00 PM
Surr: 4-Bromofluorobenzene	109	78.1-120	%REC	1	7/26/2016 4:28:00 PM
Surr: Dibromofluoromethane	110	84.2-122	%REC	1	7/26/2016 4:28:00 PM
Surr: Toluene-d8	88.4	86.2-135	%REC	1	7/26/2016 4:28:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-002  
**Client Sample ID:** B-6(GW)

**Collection Date:** 7/20/2016 12:20:00 PM  
**Matrix:** WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
2-Butanone	ND	10.0		µg/L	1	7/26/2016 5:00:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
2-Hexanone	ND	10.0		µg/L	1	7/26/2016 5:00:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
4-Isopropyltoluene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	7/26/2016 5:00:00 PM
Acetone	ND	50.0		µg/L	1	7/26/2016 5:00:00 PM
Acrylonitrile	ND	5.00		µg/L	1	7/26/2016 5:00:00 PM
Benzene	0.400	0.300		µg/L	1	7/26/2016 5:00:00 PM
Bromobenzene	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
Bromochloromethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
Bromoform	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
Bromomethane	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
Carbon disulfide	ND	2.00		µg/L	1	7/26/2016 5:00:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	7/26/2016 5:00:00 PM
Chlorobenzene	3.84	1.00		µg/L	1	7/26/2016 5:00:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANICS BY GC/MS**

**SW8260B**

Analyst: **CK**

Chloroethane	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Chloroform	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Chloromethane	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
cis-1,2-Dichloroethene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
cis-1,3-Dichloropropene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Dibromochloromethane	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Dibromomethane	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Dichlorodifluoromethane	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Ethylbenzene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Hexachlorobutadiene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Isopropylbenzene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
m,p-Xylene	ND	2.00	µg/L	1	7/26/2016 5:00:00 PM
Methyl tert-butyl ether	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Methylene chloride	ND	20.0	µg/L	1	7/26/2016 5:00:00 PM
Naphthalene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
n-Butylbenzene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
n-Propylbenzene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
o-Xylene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
sec-Butylbenzene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Styrene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
tert-Butylbenzene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Tetrachloroethene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Toluene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
trans-1,2-Dichloroethene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
trans-1,3-Dichloropropene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Trichloroethene	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Trichlorofluoromethane	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Trichlorotrifluoroethane	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Vinyl chloride	ND	1.00	µg/L	1	7/26/2016 5:00:00 PM
Surr: 1,2-Dichloroethane-d4	107	85.3-126	%REC	1	7/26/2016 5:00:00 PM
Surr: 4-Bromofluorobenzene	109	78.1-120	%REC	1	7/26/2016 5:00:00 PM
Surr: Dibromofluoromethane	111	84.2-122	%REC	1	7/26/2016 5:00:00 PM
Surr: Toluene-d8	89.9	86.2-135	%REC	1	7/26/2016 5:00:00 PM

**Lab ID:** 1607145-003

**Collection Date:** 7/20/2016 9:20:00 AM

**Client Sample ID:** B-9(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold	ND				1	7/28/2016 12:03:07 PM
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# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-004

**Collection Date:** 7/20/2016 9:30:00 AM

**Client Sample ID:** B-9(6')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>NWTPH-HCID</b>		<b>NWHCID</b>		Analyst: <b>jw</b>		
Gasoline	ND	24.7		mg/Kg-dry	1	7/22/2016 4:28:00 PM
Mineral Spirits	ND	24.7		mg/Kg-dry	1	7/22/2016 4:28:00 PM
Kerosene	ND	61.7		mg/Kg-dry	1	7/22/2016 4:28:00 PM
Diesel	ND	61.7		mg/Kg-dry	1	7/22/2016 4:28:00 PM
Lube Oil	ND	123		mg/Kg-dry	1	7/22/2016 4:28:00 PM
Hydraulic Oil	ND	123		mg/Kg-dry	1	7/22/2016 4:28:00 PM
Surr: BFB	97.6	50-150		%REC	1	7/22/2016 4:28:00 PM
Surr: o-Terphenyl	96.3	50-150		%REC	1	7/22/2016 4:28:00 PM
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>				Analyst: <b>CK</b>		
Bis(2-ethylhexyl)phthalate	ND	41.1		µg/Kg-dry	1	7/25/2016 2:38:00 PM
Surr: 2-Fluorobiphenyl	76.6	52.6-113.2		%REC	1	7/25/2016 2:38:00 PM
Surr: 4-Terphenyl-d14	76.1	49.8-118		%REC	1	7/25/2016 2:38:00 PM
Surr: Nitrobenzene-d5	66.9	44.8-103		%REC	1	7/25/2016 2:38:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>				Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,1,1-Trichloroethane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,1,2,2-Tetrachloroethane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,1,2-Trichloroethane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,1-Dichloroethane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,1-Dichloroethene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,1-Dichloropropene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2,3-Trichlorobenzene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2,3-Trichloropropane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2,4-Trichlorobenzene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2,4-Trimethylbenzene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2-Dibromo-3-chloropropane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2-Dibromoethane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2-Dichlorobenzene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2-Dichloroethane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,2-Dichloropropane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,3,5-Trimethylbenzene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,3-Dichlorobenzene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,3-Dichloropropane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
1,4-Dichlorobenzene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
2,2-Dichloropropane	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM
2-Butanone	ND	47.0		µg/Kg-dry	1	7/22/2016 11:47:00 AM
2-Chlorotoluene	ND	11.7		µg/Kg-dry	1	7/22/2016 11:47:00 AM

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

2-Hexanone	ND	23.5	µg/Kg-dry	1	7/22/2016 11:47:00 AM
4-Chlorotoluene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
4-Isopropyltoluene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
4-Methyl-2-pentanone	ND	47.0	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Acetone	ND	117	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Benzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Bromobenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Bromochloromethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Bromodichloromethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Bromoform	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Bromomethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Carbon Disulfide	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Carbon tetrachloride	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Chlorobenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Chloroethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Chloroform	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Chloromethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
cis-1,2-Dichloroethene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
cis-1,3-Dichloropropene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Dibromochloromethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Dibromomethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Dichlorodifluoromethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Ethylbenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Hexachlorobutadiene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Isopropylbenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
m,p-Xylene	ND	23.5	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Methyl tert-butyl ether	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Methylene Chloride	ND	58.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Naphthalene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
n-Butylbenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
n-Propylbenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
o-Xylene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
sec-Butylbenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Styrene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
tert-Butylbenzene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Tetrachloroethene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Toluene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
trans-1,2-Dichloroethene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
trans-1,3-Dichloropropene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Trichloroethene	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Trichlorofluoromethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Trichlorotrifluoroethane	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM
Vinyl Chloride	ND	11.7	µg/Kg-dry	1	7/22/2016 11:47:00 AM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Surr: 1,2-Dichloroethane-d4	109	71.5-123	%REC	1	7/22/2016 11:47:00 AM
Surr: 4-Bromofluorobenzene	93.8	75.7-122	%REC	1	7/22/2016 11:47:00 AM
Surr: Dibromofluoromethane	111	64.3-124	%REC	1	7/22/2016 11:47:00 AM
Surr: Toluene-d8	85.2	74.9-120	%REC	1	7/22/2016 11:47:00 AM

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

Lab ID: 1607145-005

Collection Date: 7/20/2016 9:40:00 AM

Client Sample ID: B-9(12')

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,1,1-Trichloroethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,1,2,2-Tetrachloroethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,1,2-Trichloroethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,1-Dichloroethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,1-Dichloroethene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,1-Dichloropropene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2,3-Trichlorobenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2,3-Trichloropropane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2,4-Trichlorobenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2,4-Trimethylbenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2-Dibromo-3-chloropropane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2-Dibromoethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2-Dichlorobenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2-Dichloroethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,2-Dichloropropane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,3,5-Trimethylbenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,3-Dichlorobenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,3-Dichloropropane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
1,4-Dichlorobenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
2,2-Dichloropropane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
2-Butanone	ND	54.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
2-Chlorotoluene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
2-Hexanone	ND	27.3		µg/Kg-dry	1	7/25/2016 12:04:00 PM
4-Chlorotoluene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
4-Isopropyltoluene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
4-Methyl-2-pentanone	ND	54.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Acetone	ND	136		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Benzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Bromobenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Bromochloromethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Bromodichloromethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Bromoform	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Bromomethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Carbon Disulfide	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Carbon tetrachloride	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Chlorobenzene	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM
Chloroethane	ND	13.6		µg/Kg-dry	1	7/25/2016 12:04:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Chloroform	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Chloromethane	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
cis-1,2-Dichloroethene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
cis-1,3-Dichloropropene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Dibromochloromethane	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Dibromomethane	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Dichlorodifluoromethane	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Ethylbenzene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Hexachlorobutadiene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Isopropylbenzene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
m,p-Xylene	ND	27.3	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Methyl tert-butyl ether	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Methylene Chloride	ND	68.2	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Naphthalene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
n-Butylbenzene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
n-Propylbenzene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
o-Xylene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
sec-Butylbenzene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Styrene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
tert-Butylbenzene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Tetrachloroethene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Toluene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
trans-1,2-Dichloroethene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
trans-1,3-Dichloropropene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Trichloroethene	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Trichlorofluoromethane	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Trichlorotrifluoroethane	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Vinyl Chloride	ND	13.6	µg/Kg-dry	1	7/25/2016 12:04:00 PM
Surr: 1,2-Dichloroethane-d4	105	71.5-123	%REC	1	7/25/2016 12:04:00 PM
Surr: 4-Bromofluorobenzene	92.5	75.7-122	%REC	1	7/25/2016 12:04:00 PM
Surr: Dibromofluoromethane	110	64.3-124	%REC	1	7/25/2016 12:04:00 PM
Surr: Toluene-d8	83.4	74.9-120	%REC	1	7/25/2016 12:04:00 PM

**Lab ID:** 1607145-006

**Collection Date:** 7/20/2016 8:50:00 AM

**Client Sample ID:** B-10(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold	ND				1	7/28/2016 12:03:07 PM
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# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-007

**Collection Date:** 7/20/2016 9:00:00 AM

**Client Sample ID:** B-10(8')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>NWTPH-HCID</b>		<b>NWHCID</b>		Analyst: <b>jw</b>		
Gasoline	ND	24.3		mg/Kg-dry	1	7/22/2016 4:50:00 PM
Mineral Spirits	ND	24.3		mg/Kg-dry	1	7/22/2016 4:50:00 PM
Kerosene	ND	60.7		mg/Kg-dry	1	7/22/2016 4:50:00 PM
Diesel	ND	60.7		mg/Kg-dry	1	7/22/2016 4:50:00 PM
Lube Oil	ND	121		mg/Kg-dry	1	7/22/2016 4:50:00 PM
Hydraulic Oil	ND	121		mg/Kg-dry	1	7/22/2016 4:50:00 PM
Surr: BFB	99.1	50-150		%REC	1	7/22/2016 4:50:00 PM
Surr: o-Terphenyl	97.8	50-150		%REC	1	7/22/2016 4:50:00 PM
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>				Analyst: <b>CK</b>		
Bis(2-ethylhexyl)phthalate	ND	40.4		µg/Kg-dry	1	7/25/2016 7:14:00 PM
Surr: 2-Fluorobiphenyl	74.3	52.6-113.2		%REC	1	7/25/2016 7:14:00 PM
Surr: 4-Terphenyl-d14	75.7	49.8-118		%REC	1	7/25/2016 7:14:00 PM
Surr: Nitrobenzene-d5	60.9	44.8-103		%REC	1	7/25/2016 7:14:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>				Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,1,1-Trichloroethane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,1,2,2-Tetrachloroethane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,1,2-Trichloroethane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,1-Dichloroethane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,1-Dichloroethene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,1-Dichloropropene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2,3-Trichlorobenzene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2,3-Trichloropropane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2,4-Trichlorobenzene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2,4-Trimethylbenzene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2-Dibromo-3-chloropropane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2-Dibromoethane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2-Dichlorobenzene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2-Dichloroethane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,2-Dichloropropane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,3,5-Trimethylbenzene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,3-Dichlorobenzene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,3-Dichloropropane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
1,4-Dichlorobenzene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
2,2-Dichloropropane	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM
2-Butanone	ND	53.2		µg/Kg-dry	1	7/22/2016 12:20:00 PM
2-Chlorotoluene	ND	13.3		µg/Kg-dry	1	7/22/2016 12:20:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

2-Hexanone	ND	26.6	µg/Kg-dry	1	7/22/2016 12:20:00 PM
4-Chlorotoluene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
4-Isopropyltoluene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
4-Methyl-2-pentanone	ND	53.2	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Acetone	ND	133	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Benzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Bromobenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Bromochloromethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Bromodichloromethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Bromoform	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Bromomethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Carbon Disulfide	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Carbon tetrachloride	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Chlorobenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Chloroethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Chloroform	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Chloromethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
cis-1,2-Dichloroethene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
cis-1,3-Dichloropropene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Dibromochloromethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Dibromomethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Dichlorodifluoromethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Ethylbenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Hexachlorobutadiene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Isopropylbenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
m,p-Xylene	ND	26.6	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Methyl tert-butyl ether	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Methylene Chloride	ND	66.5	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Naphthalene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
n-Butylbenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
n-Propylbenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
o-Xylene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
sec-Butylbenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Styrene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
tert-Butylbenzene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Tetrachloroethene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Toluene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
trans-1,2-Dichloroethene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
trans-1,3-Dichloropropene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Trichloroethene	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Trichlorofluoromethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Trichlorotrifluoroethane	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM
Vinyl Chloride	ND	13.3	µg/Kg-dry	1	7/22/2016 12:20:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Surr: 1,2-Dichloroethane-d4	109	71.5-123	%REC	1	7/22/2016 12:20:00 PM
Surr: 4-Bromofluorobenzene	94.4	75.7-122	%REC	1	7/22/2016 12:20:00 PM
Surr: Dibromofluoromethane	109	64.3-124	%REC	1	7/22/2016 12:20:00 PM
Surr: Toluene-d8	86.9	74.9-120	%REC	1	7/22/2016 12:20:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-008

**Collection Date:** 7/20/2016 9:10:00 AM

**Client Sample ID:** B-10(15')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,1,1-Trichloroethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,1,2,2-Tetrachloroethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,1,2-Trichloroethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,1-Dichloroethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,1-Dichloroethene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,1-Dichloropropene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2,3-Trichlorobenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2,3-Trichloropropane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2,4-Trichlorobenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2,4-Trimethylbenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2-Dibromo-3-chloropropane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2-Dibromoethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2-Dichlorobenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2-Dichloroethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,2-Dichloropropane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,3,5-Trimethylbenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,3-Dichlorobenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,3-Dichloropropane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
1,4-Dichlorobenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
2,2-Dichloropropane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
2-Butanone	ND	57.9		µg/Kg-dry	1	7/25/2016 12:36:00 PM
2-Chlorotoluene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
2-Hexanone	ND	28.9		µg/Kg-dry	1	7/25/2016 12:36:00 PM
4-Chlorotoluene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
4-Isopropyltoluene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
4-Methyl-2-pentanone	ND	57.9		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Acetone	ND	145		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Benzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Bromobenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Bromochloromethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Bromodichloromethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Bromoform	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Bromomethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Carbon Disulfide	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Carbon tetrachloride	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Chlorobenzene	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM
Chloroethane	ND	14.5		µg/Kg-dry	1	7/25/2016 12:36:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Chloroform	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Chloromethane	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
cis-1,2-Dichloroethene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
cis-1,3-Dichloropropene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Dibromochloromethane	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Dibromomethane	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Dichlorodifluoromethane	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Ethylbenzene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Hexachlorobutadiene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Isopropylbenzene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
m,p-Xylene	ND	28.9	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Methyl tert-butyl ether	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Methylene Chloride	ND	72.3	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Naphthalene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
n-Butylbenzene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
n-Propylbenzene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
o-Xylene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
sec-Butylbenzene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Styrene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
tert-Butylbenzene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Tetrachloroethene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Toluene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
trans-1,2-Dichloroethene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
trans-1,3-Dichloropropene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Trichloroethene	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Trichlorofluoromethane	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Trichlorotrifluoroethane	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Vinyl Chloride	ND	14.5	µg/Kg-dry	1	7/25/2016 12:36:00 PM
Surr: 1,2-Dichloroethane-d4	110	71.5-123	%REC	1	7/25/2016 12:36:00 PM
Surr: 4-Bromofluorobenzene	93.7	75.7-122	%REC	1	7/25/2016 12:36:00 PM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/25/2016 12:36:00 PM
Surr: Toluene-d8	84.5	74.9-120	%REC	1	7/25/2016 12:36:00 PM

**Lab ID:** 1607145-009

**Collection Date:** 7/20/2016 9:50:00 AM

**Client Sample ID:** B-6(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold	ND				1	7/28/2016 12:03:07 PM
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# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-010

**Collection Date:** 7/20/2016 1:00:00 PM

**Client Sample ID:** B-6(15')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold

ND

1

7/28/2016 12:03:07 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-011

**Collection Date:** 7/20/2016 1:10:00 PM

**Client Sample ID:** B-6(31')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	42.2		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Surr: 2-Fluorobiphenyl	83.1	52.6-113.2		%REC	1	7/25/2016 3:16:00 PM
Surr: 4-Terphenyl-d14	83.5	49.8-118		%REC	1	7/25/2016 3:16:00 PM
Surr: Nitrobenzene-d5	68.9	44.8-103		%REC	1	7/25/2016 3:16:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,1,1-Trichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,1,2,2-Tetrachloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,1,2-Trichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,1-Dichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,1-Dichloroethene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,1-Dichloropropene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2,3-Trichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2,3-Trichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2,4-Trichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2,4-Trimethylbenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2-Dibromo-3-chloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2-Dibromoethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2-Dichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2-Dichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,2-Dichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,3,5-Trimethylbenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,3-Dichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,3-Dichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
1,4-Dichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
2,2-Dichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
2-Butanone	ND	53.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
2-Chlorotoluene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
2-Hexanone	ND	26.7		µg/Kg-dry	1	7/22/2016 12:52:00 PM
4-Chlorotoluene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
4-Isopropyltoluene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
4-Methyl-2-pentanone	ND	53.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
Acetone	ND	134		µg/Kg-dry	1	7/22/2016 12:52:00 PM
Benzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
Bromobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
Bromochloromethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM
Bromodichloromethane	ND	13.4		µg/Kg-dry	1	7/22/2016 12:52:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Bromomethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Carbon Disulfide	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Carbon tetrachloride	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Chlorobenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Chloroethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Chloroform	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Chloromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
cis-1,2-Dichloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
cis-1,3-Dichloropropene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Dibromochloromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Dibromomethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Dichlorodifluoromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Ethylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Hexachlorobutadiene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Isopropylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
m,p-Xylene	ND	26.7	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Methyl tert-butyl ether	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Methylene Chloride	ND	66.8	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Naphthalene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
n-Butylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
n-Propylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
o-Xylene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
sec-Butylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Styrene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
tert-Butylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Tetrachloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Toluene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
trans-1,2-Dichloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
trans-1,3-Dichloropropene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Trichloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Trichlorofluoromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Trichlorotrifluoroethane	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Vinyl Chloride	ND	13.4	µg/Kg-dry	1	7/22/2016 12:52:00 PM
Surr: 1,2-Dichloroethane-d4	112	71.5-123	%REC	1	7/22/2016 12:52:00 PM
Surr: 4-Bromofluorobenzene	94.4	75.7-122	%REC	1	7/22/2016 12:52:00 PM
Surr: Dibromofluoromethane	112	64.3-124	%REC	1	7/22/2016 12:52:00 PM
Surr: Toluene-d8	84.7	74.9-120	%REC	1	7/22/2016 12:52:00 PM



# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-012

**Collection Date:** 7/20/2016 4:35:00 PM

**Client Sample ID:** B-7D(5')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,1,1-Trichloroethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,1,2,2-Tetrachloroethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,1,2-Trichloroethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,1-Dichloroethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,1-Dichloroethene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,1-Dichloropropene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2,3-Trichlorobenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2,3-Trichloropropane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2,4-Trichlorobenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2,4-Trimethylbenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2-Dibromo-3-chloropropane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2-Dibromoethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2-Dichlorobenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2-Dichloroethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,2-Dichloropropane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,3,5-Trimethylbenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,3-Dichlorobenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,3-Dichloropropane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
1,4-Dichlorobenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
2,2-Dichloropropane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
2-Butanone	ND	42.1		µg/Kg-dry	1	7/25/2016 1:08:00 PM
2-Chlorotoluene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
2-Hexanone	ND	21.0		µg/Kg-dry	1	7/25/2016 1:08:00 PM
4-Chlorotoluene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
4-Isopropyltoluene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
4-Methyl-2-pentanone	ND	42.1		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Acetone	ND	105		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Benzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Bromobenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Bromochloromethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Bromodichloromethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Bromoform	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Bromomethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Carbon Disulfide	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Carbon tetrachloride	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Chlorobenzene	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM
Chloroethane	ND	10.5		µg/Kg-dry	1	7/25/2016 1:08:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Chloromethane	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
cis-1,2-Dichloroethene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
cis-1,3-Dichloropropene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Dibromochloromethane	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Dibromomethane	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Dichlorodifluoromethane	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Ethylbenzene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Hexachlorobutadiene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Isopropylbenzene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
m,p-Xylene	ND	21.0	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Methyl tert-butyl ether	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Methylene Chloride	ND	52.6	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Naphthalene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
n-Butylbenzene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
n-Propylbenzene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
o-Xylene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
sec-Butylbenzene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Styrene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
tert-Butylbenzene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Tetrachloroethene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Toluene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
trans-1,2-Dichloroethene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
trans-1,3-Dichloropropene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Trichloroethene	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Trichlorofluoromethane	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Trichlorotrifluoroethane	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Vinyl Chloride	ND	10.5	µg/Kg-dry	1	7/25/2016 1:08:00 PM
Surr: 1,2-Dichloroethane-d4	114	71.5-123	%REC	1	7/25/2016 1:08:00 PM
Surr: 4-Bromofluorobenzene	94.8	75.7-122	%REC	1	7/25/2016 1:08:00 PM
Surr: Dibromofluoromethane	115	64.3-124	%REC	1	7/25/2016 1:08:00 PM
Surr: Toluene-d8	83.7	74.9-120	%REC	1	7/25/2016 1:08:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-013

**Collection Date:** 7/20/2016 1:40:00 PM

**Client Sample ID:** B-7C(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,1,1-Trichloroethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,1,2,2-Tetrachloroethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,1,2-Trichloroethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,1-Dichloroethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,1-Dichloroethene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,1-Dichloropropene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2,3-Trichlorobenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2,3-Trichloropropane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2,4-Trichlorobenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2,4-Trimethylbenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2-Dibromo-3-chloropropane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2-Dibromoethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2-Dichlorobenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2-Dichloroethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,2-Dichloropropane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,3,5-Trimethylbenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,3-Dichlorobenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,3-Dichloropropane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
1,4-Dichlorobenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
2,2-Dichloropropane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
2-Butanone	ND	84.4		µg/Kg-dry	1	7/25/2016 3:16:00 PM
2-Chlorotoluene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
2-Hexanone	ND	42.2		µg/Kg-dry	1	7/25/2016 3:16:00 PM
4-Chlorotoluene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
4-Isopropyltoluene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
4-Methyl-2-pentanone	ND	84.4		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Acetone	ND	211		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Benzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Bromobenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Bromochloromethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Bromodichloromethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Bromoform	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Bromomethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Carbon Disulfide	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Carbon tetrachloride	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Chlorobenzene	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM
Chloroethane	ND	21.1		µg/Kg-dry	1	7/25/2016 3:16:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Chloromethane	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
cis-1,2-Dichloroethene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
cis-1,3-Dichloropropene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Dibromochloromethane	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Dibromomethane	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Dichlorodifluoromethane	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Ethylbenzene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Hexachlorobutadiene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Isopropylbenzene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
m,p-Xylene	ND	42.2	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Methyl tert-butyl ether	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Methylene Chloride	ND	105	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Naphthalene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
n-Butylbenzene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
n-Propylbenzene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
o-Xylene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
sec-Butylbenzene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Styrene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
tert-Butylbenzene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Tetrachloroethene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Toluene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
trans-1,2-Dichloroethene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
trans-1,3-Dichloropropene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Trichloroethene	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Trichlorofluoromethane	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Trichlorotrifluoroethane	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Vinyl Chloride	ND	21.1	µg/Kg-dry	1	7/25/2016 3:16:00 PM
Surr: 1,2-Dichloroethane-d4	109	71.5-123	%REC	1	7/25/2016 3:16:00 PM
Surr: 4-Bromofluorobenzene	94.0	75.7-122	%REC	1	7/25/2016 3:16:00 PM
Surr: Dibromofluoromethane	109	64.3-124	%REC	1	7/25/2016 3:16:00 PM
Surr: Toluene-d8	83.3	74.9-120	%REC	1	7/25/2016 3:16:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-014

**Collection Date:** 7/20/2016 1:50:00 PM

**Client Sample ID:** B-7C(6')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,1,1-Trichloroethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,1,2,2-Tetrachloroethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,1,2-Trichloroethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,1-Dichloroethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,1-Dichloroethene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,1-Dichloropropene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2,3-Trichlorobenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2,3-Trichloropropane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2,4-Trichlorobenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2,4-Trimethylbenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2-Dibromo-3-chloropropane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2-Dibromoethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2-Dichlorobenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2-Dichloroethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,2-Dichloropropane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,3,5-Trimethylbenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,3-Dichlorobenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,3-Dichloropropane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
1,4-Dichlorobenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
2,2-Dichloropropane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
2-Butanone	ND	61.4		µg/Kg-dry	1	7/22/2016 1:24:00 PM
2-Chlorotoluene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
2-Hexanone	ND	30.7		µg/Kg-dry	1	7/22/2016 1:24:00 PM
4-Chlorotoluene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
4-Isopropyltoluene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
4-Methyl-2-pentanone	ND	61.4		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Acetone	ND	153		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Benzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Bromobenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Bromochloromethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Bromodichloromethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Bromoform	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Bromomethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Carbon Disulfide	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Carbon tetrachloride	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Chlorobenzene	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM
Chloroethane	ND	15.3		µg/Kg-dry	1	7/22/2016 1:24:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Chloroform	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Chloromethane	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
cis-1,2-Dichloroethene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
cis-1,3-Dichloropropene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Dibromochloromethane	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Dibromomethane	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Dichlorodifluoromethane	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Ethylbenzene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Hexachlorobutadiene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Isopropylbenzene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
m,p-Xylene	ND	30.7	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Methyl tert-butyl ether	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Methylene Chloride	ND	76.7	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Naphthalene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
n-Butylbenzene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
n-Propylbenzene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
o-Xylene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
sec-Butylbenzene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Styrene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
tert-Butylbenzene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Tetrachloroethene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Toluene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
trans-1,2-Dichloroethene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
trans-1,3-Dichloropropene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Trichloroethene	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Trichlorofluoromethane	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Trichlorotrifluoroethane	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Vinyl Chloride	ND	15.3	µg/Kg-dry	1	7/22/2016 1:24:00 PM
Surr: 1,2-Dichloroethane-d4	110	71.5-123	%REC	1	7/22/2016 1:24:00 PM
Surr: 4-Bromofluorobenzene	94.6	75.7-122	%REC	1	7/22/2016 1:24:00 PM
Surr: Dibromofluoromethane	110	64.3-124	%REC	1	7/22/2016 1:24:00 PM
Surr: Toluene-d8	84.9	74.9-120	%REC	1	7/22/2016 1:24:00 PM

**Lab ID:** 1607145-015

**Collection Date:** 7/20/2016 3:05:00 PM

**Client Sample ID:** B-1B(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold	ND				1	7/28/2016 12:03:07 PM
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# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-016

**Collection Date:** 7/20/2016 3:50:00 PM

**Client Sample ID:** B-1B(14')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold

ND

1

7/28/2016 12:03:07 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-017

**Collection Date:** 7/20/2016 4:00:00 PM

**Client Sample ID:** B-1B(28')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>						Analyst: <b>CK</b>
Bis(2-ethylhexyl)phthalate	ND	43.5		µg/Kg-dry	1	7/25/2016 3:42:00 PM
Surr: 2-Fluorobiphenyl	82.5	52.6-113.2		%REC	1	7/25/2016 3:42:00 PM
Surr: 4-Terphenyl-d14	83.3	49.8-118		%REC	1	7/25/2016 3:42:00 PM
Surr: Nitrobenzene-d5	68.1	44.8-103		%REC	1	7/25/2016 3:42:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>						Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,1,1-Trichloroethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,1,2,2-Tetrachloroethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,1,2-Trichloroethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,1-Dichloroethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,1-Dichloroethene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,1-Dichloropropene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2,3-Trichlorobenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2,3-Trichloropropane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2,4-Trichlorobenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2,4-Trimethylbenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2-Dibromo-3-chloropropane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2-Dibromoethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2-Dichlorobenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2-Dichloroethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,2-Dichloropropane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,3,5-Trimethylbenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,3-Dichlorobenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,3-Dichloropropane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
1,4-Dichlorobenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
2,2-Dichloropropane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
2-Butanone	ND	58.8		µg/Kg-dry	1	7/22/2016 1:56:00 PM
2-Chlorotoluene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
2-Hexanone	ND	29.4		µg/Kg-dry	1	7/22/2016 1:56:00 PM
4-Chlorotoluene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
4-Isopropyltoluene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
4-Methyl-2-pentanone	ND	58.8		µg/Kg-dry	1	7/22/2016 1:56:00 PM
Acetone	ND	147		µg/Kg-dry	1	7/22/2016 1:56:00 PM
Benzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
Bromobenzene	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
Bromochloromethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM
Bromodichloromethane	ND	14.7		µg/Kg-dry	1	7/22/2016 1:56:00 PM



# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Bromomethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Carbon Disulfide	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Carbon tetrachloride	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Chlorobenzene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Chloroethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Chloroform	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Chloromethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
cis-1,2-Dichloroethene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
cis-1,3-Dichloropropene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Dibromochloromethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Dibromomethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Dichlorodifluoromethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Ethylbenzene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Hexachlorobutadiene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Isopropylbenzene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
m,p-Xylene	ND	29.4	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Methyl tert-butyl ether	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Methylene Chloride	ND	73.4	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Naphthalene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
n-Butylbenzene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
n-Propylbenzene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
o-Xylene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
sec-Butylbenzene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Styrene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
tert-Butylbenzene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Tetrachloroethene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Toluene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
trans-1,2-Dichloroethene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
trans-1,3-Dichloropropene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Trichloroethene	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Trichlorofluoromethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Trichlorotrifluoroethane	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Vinyl Chloride	ND	14.7	µg/Kg-dry	1	7/22/2016 1:56:00 PM
Surr: 1,2-Dichloroethane-d4	110	71.5-123	%REC	1	7/22/2016 1:56:00 PM
Surr: 4-Bromofluorobenzene	95.4	75.7-122	%REC	1	7/22/2016 1:56:00 PM
Surr: Dibromofluoromethane	110	64.3-124	%REC	1	7/22/2016 1:56:00 PM
Surr: Toluene-d8	86.5	74.9-120	%REC	1	7/22/2016 1:56:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-018

**Collection Date:** 7/20/2016 2:50:00 PM

**Client Sample ID:** B-11B(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold

ND

1

7/28/2016 12:03:07 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-019

**Collection Date:** 7/20/2016 3:00:00 PM

**Client Sample ID:** B-11B(8')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,1,1-Trichloroethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,1,2,2-Tetrachloroethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,1,2-Trichloroethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,1-Dichloroethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,1-Dichloroethene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,1-Dichloropropene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2,3-Trichlorobenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2,3-Trichloropropane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2,4-Trichlorobenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2,4-Trimethylbenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2-Dibromo-3-chloropropane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2-Dibromoethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2-Dichlorobenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2-Dichloroethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,2-Dichloropropane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,3,5-Trimethylbenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,3-Dichlorobenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,3-Dichloropropane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
1,4-Dichlorobenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
2,2-Dichloropropane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
2-Butanone	ND	46.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
2-Chlorotoluene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
2-Hexanone	ND	23.4		µg/Kg-dry	1	7/25/2016 2:12:00 PM
4-Chlorotoluene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
4-Isopropyltoluene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
4-Methyl-2-pentanone	ND	46.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Acetone	ND	117		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Benzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Bromobenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Bromochloromethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Bromodichloromethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Bromoform	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Bromomethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Carbon Disulfide	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Carbon tetrachloride	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Chlorobenzene	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM
Chloroethane	ND	11.7		µg/Kg-dry	1	7/25/2016 2:12:00 PM

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Chloroform	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Chloromethane	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
cis-1,2-Dichloroethene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
cis-1,3-Dichloropropene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Dibromochloromethane	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Dibromomethane	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Dichlorodifluoromethane	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Ethylbenzene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Hexachlorobutadiene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Isopropylbenzene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
m,p-Xylene	ND	23.4	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Methyl tert-butyl ether	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Methylene Chloride	ND	58.4	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Naphthalene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
n-Butylbenzene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
n-Propylbenzene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
o-Xylene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
sec-Butylbenzene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Styrene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
tert-Butylbenzene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Tetrachloroethene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Toluene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
trans-1,2-Dichloroethene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
trans-1,3-Dichloropropene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Trichloroethene	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Trichlorofluoromethane	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Trichlorotrifluoroethane	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Vinyl Chloride	ND	11.7	µg/Kg-dry	1	7/25/2016 2:12:00 PM
Surr: 1,2-Dichloroethane-d4	111	71.5-123	%REC	1	7/25/2016 2:12:00 PM
Surr: 4-Bromofluorobenzene	97.0	75.7-122	%REC	1	7/25/2016 2:12:00 PM
Surr: Dibromofluoromethane	113	64.3-124	%REC	1	7/25/2016 2:12:00 PM
Surr: Toluene-d8	84.3	74.9-120	%REC	1	7/25/2016 2:12:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-020

**Collection Date:** 7/20/2016 3:05:00 PM

**Client Sample ID:** B-11B(18')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D</b>						Analyst: <b>CK</b>
Bis(2-ethylhexyl)phthalate	ND	41.5		µg/Kg-dry	1	7/25/2016 4:09:00 PM
Surr: 2-Fluorobiphenyl	76.0	52.6-113.2		%REC	1	7/25/2016 4:09:00 PM
Surr: 4-Terphenyl-d14	76.4	49.8-118		%REC	1	7/25/2016 4:09:00 PM
Surr: Nitrobenzene-d5	69.0	44.8-103		%REC	1	7/25/2016 4:09:00 PM
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B</b>						Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,1,1-Trichloroethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,1,2,2-Tetrachloroethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,1,2-Trichloroethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,1-Dichloroethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,1-Dichloroethene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,1-Dichloropropene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2,3-Trichlorobenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2,3-Trichloropropane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2,4-Trichlorobenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2,4-Trimethylbenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2-Dibromo-3-chloropropane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2-Dibromoethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2-Dichlorobenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2-Dichloroethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,2-Dichloropropane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,3,5-Trimethylbenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,3-Dichlorobenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,3-Dichloropropane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
1,4-Dichlorobenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
2,2-Dichloropropane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
2-Butanone	ND	49.2		µg/Kg-dry	1	7/22/2016 2:28:00 PM
2-Chlorotoluene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
2-Hexanone	ND	24.6		µg/Kg-dry	1	7/22/2016 2:28:00 PM
4-Chlorotoluene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
4-Isopropyltoluene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
4-Methyl-2-pentanone	ND	49.2		µg/Kg-dry	1	7/22/2016 2:28:00 PM
Acetone	ND	123		µg/Kg-dry	1	7/22/2016 2:28:00 PM
Benzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
Bromobenzene	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
Bromochloromethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM
Bromodichloromethane	ND	12.3		µg/Kg-dry	1	7/22/2016 2:28:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Bromoform	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Bromomethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Carbon Disulfide	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Carbon tetrachloride	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Chlorobenzene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Chloroethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Chloroform	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Chloromethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
cis-1,2-Dichloroethene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
cis-1,3-Dichloropropene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Dibromochloromethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Dibromomethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Dichlorodifluoromethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Ethylbenzene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Hexachlorobutadiene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Isopropylbenzene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
m,p-Xylene	ND	24.6	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Methyl tert-butyl ether	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Methylene Chloride	ND	61.5	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Naphthalene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
n-Butylbenzene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
n-Propylbenzene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
o-Xylene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
sec-Butylbenzene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Styrene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
tert-Butylbenzene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Tetrachloroethene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Toluene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
trans-1,2-Dichloroethene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
trans-1,3-Dichloropropene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Trichloroethene	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Trichlorofluoromethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Trichlorotrifluoroethane	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Vinyl Chloride	ND	12.3	µg/Kg-dry	1	7/22/2016 2:28:00 PM
Surr: 1,2-Dichloroethane-d4	113	71.5-123	%REC	1	7/22/2016 2:28:00 PM
Surr: 4-Bromofluorobenzene	96.9	75.7-122	%REC	1	7/22/2016 2:28:00 PM
Surr: Dibromofluoromethane	113	64.3-124	%REC	1	7/22/2016 2:28:00 PM
Surr: Toluene-d8	85.9	74.9-120	%REC	1	7/22/2016 2:28:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-021

**Collection Date:** 7/20/2016 2:35:00 PM

**Client Sample ID:** B-5B(1)

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,1,1-Trichloroethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,1,2,2-Tetrachloroethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,1,2-Trichloroethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,1-Dichloroethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,1-Dichloroethene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,1-Dichloropropene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2,3-Trichlorobenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2,3-Trichloropropane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2,4-Trichlorobenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2,4-Trimethylbenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2-Dibromo-3-chloropropane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2-Dibromoethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2-Dichlorobenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2-Dichloroethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,2-Dichloropropane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,3,5-Trimethylbenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,3-Dichlorobenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,3-Dichloropropane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
1,4-Dichlorobenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
2,2-Dichloropropane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
2-Butanone	ND	67.7		µg/Kg-dry	1	7/22/2016 3:01:00 PM
2-Chlorotoluene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
2-Hexanone	ND	33.8		µg/Kg-dry	1	7/22/2016 3:01:00 PM
4-Chlorotoluene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
4-Isopropyltoluene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
4-Methyl-2-pentanone	ND	67.7		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Acetone	ND	169		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Benzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Bromobenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Bromochloromethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Bromodichloromethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Bromoform	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Bromomethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Carbon Disulfide	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Carbon tetrachloride	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Chlorobenzene	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM
Chloroethane	ND	16.9		µg/Kg-dry	1	7/22/2016 3:01:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

CLIENT: Bergerabam  
Project: Fort James

Lab Order: 1607145

## VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260B

Analyst: CK

Chloroform	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Chloromethane	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
cis-1,2-Dichloroethene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
cis-1,3-Dichloropropene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Dibromochloromethane	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Dibromomethane	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Dichlorodifluoromethane	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Ethylbenzene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Hexachlorobutadiene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Isopropylbenzene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
m,p-Xylene	ND	33.8	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Methyl tert-butyl ether	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Methylene Chloride	ND	84.6	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Naphthalene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
n-Butylbenzene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
n-Propylbenzene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
o-Xylene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
sec-Butylbenzene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Styrene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
tert-Butylbenzene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Tetrachloroethene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Toluene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
trans-1,2-Dichloroethene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
trans-1,3-Dichloropropene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Trichloroethene	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Trichlorofluoromethane	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Trichlorotrifluoroethane	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Vinyl Chloride	ND	16.9	µg/Kg-dry	1	7/22/2016 3:01:00 PM
Surr: 1,2-Dichloroethane-d4	109	71.5-123	%REC	1	7/22/2016 3:01:00 PM
Surr: 4-Bromofluorobenzene	93.1	75.7-122	%REC	1	7/22/2016 3:01:00 PM
Surr: Dibromofluoromethane	110	64.3-124	%REC	1	7/22/2016 3:01:00 PM
Surr: Toluene-d8	86.1	74.9-120	%REC	1	7/22/2016 3:01:00 PM



# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-022

**Collection Date:** 7/20/2016 2:20:00 PM

**Client Sample ID:** B-5B(6')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,1,1-Trichloroethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,1,2,2-Tetrachloroethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,1,2-Trichloroethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,1-Dichloroethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,1-Dichloroethene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,1-Dichloropropene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2,3-Trichlorobenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2,3-Trichloropropane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2,4-Trichlorobenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2,4-Trimethylbenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2-Dibromo-3-chloropropane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2-Dibromoethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2-Dichlorobenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2-Dichloroethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,2-Dichloropropane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,3,5-Trimethylbenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,3-Dichlorobenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,3-Dichloropropane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
1,4-Dichlorobenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
2,2-Dichloropropane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
2-Butanone	ND	53.9		µg/Kg-dry	1	7/22/2016 3:33:00 PM
2-Chlorotoluene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
2-Hexanone	ND	26.9		µg/Kg-dry	1	7/22/2016 3:33:00 PM
4-Chlorotoluene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
4-Isopropyltoluene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
4-Methyl-2-pentanone	ND	53.9		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Acetone	ND	135		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Benzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Bromobenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Bromochloromethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Bromodichloromethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Bromoform	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Bromomethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Carbon Disulfide	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Carbon tetrachloride	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Chlorobenzene	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM
Chloroethane	ND	13.5		µg/Kg-dry	1	7/22/2016 3:33:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Chloroform	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Chloromethane	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
cis-1,2-Dichloroethene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
cis-1,3-Dichloropropene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Dibromochloromethane	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Dibromomethane	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Dichlorodifluoromethane	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Ethylbenzene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Hexachlorobutadiene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Isopropylbenzene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
m,p-Xylene	ND	26.9	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Methyl tert-butyl ether	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Methylene Chloride	ND	67.3	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Naphthalene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
n-Butylbenzene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
n-Propylbenzene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
o-Xylene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
sec-Butylbenzene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Styrene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
tert-Butylbenzene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Tetrachloroethene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Toluene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
trans-1,2-Dichloroethene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
trans-1,3-Dichloropropene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Trichloroethene	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Trichlorofluoromethane	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Trichlorotrifluoroethane	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Vinyl Chloride	ND	13.5	µg/Kg-dry	1	7/22/2016 3:33:00 PM
Surr: 1,2-Dichloroethane-d4	107	71.5-123	%REC	1	7/22/2016 3:33:00 PM
Surr: 4-Bromofluorobenzene	93.2	75.7-122	%REC	1	7/22/2016 3:33:00 PM
Surr: Dibromofluoromethane	109	64.3-124	%REC	1	7/22/2016 3:33:00 PM
Surr: Toluene-d8	86.7	74.9-120	%REC	1	7/22/2016 3:33:00 PM

**Lab ID:** 1607145-023

**Collection Date:** 7/20/2016 4:20:00 PM

**Client Sample ID:** B-3B(1')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**HOLD PER CLIENT REQUEST**

**PER CLIENT**

Analyst: **ZL**

Hold	ND				1	7/28/2016 12:03:07 PM
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# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-024

**Collection Date:** 7/20/2016 4:30:00 PM

**Client Sample ID:** B-3B(10')

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**SEMI-VOLATILE COMPOUNDS - BASE/NEUTRAL SW8270D**

Analyst: **CK**

Bis(2-ethylhexyl)phthalate	ND	40.1		µg/Kg-dry	1	7/25/2016 4:35:00 PM
Surr: 2-Fluorobiphenyl	84.7	52.6-113.2		%REC	1	7/25/2016 4:35:00 PM
Surr: 4-Terphenyl-d14	85.7	49.8-118		%REC	1	7/25/2016 4:35:00 PM
Surr: Nitrobenzene-d5	69.1	44.8-103		%REC	1	7/25/2016 4:35:00 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS SW8260B**

Analyst: **CK**

1,1,1,2-Tetrachloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,1,1-Trichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,1,2,2-Tetrachloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,1,2-Trichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,1-Dichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,1-Dichloroethene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,1-Dichloropropene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2,3-Trichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2,3-Trichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2,4-Trichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2,4-Trimethylbenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2-Dibromo-3-chloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2-Dibromoethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2-Dichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2-Dichloroethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,2-Dichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,3,5-Trimethylbenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,3-Dichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,3-Dichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
1,4-Dichlorobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
2,2-Dichloropropane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
2-Butanone	ND	53.6		µg/Kg-dry	1	7/22/2016 4:05:00 PM
2-Chlorotoluene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
2-Hexanone	ND	26.8		µg/Kg-dry	1	7/22/2016 4:05:00 PM
4-Chlorotoluene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
4-Isopropyltoluene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
4-Methyl-2-pentanone	ND	53.6		µg/Kg-dry	1	7/22/2016 4:05:00 PM
Acetone	ND	134		µg/Kg-dry	1	7/22/2016 4:05:00 PM
Benzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
Bromobenzene	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
Bromochloromethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM
Bromodichloromethane	ND	13.4		µg/Kg-dry	1	7/22/2016 4:05:00 PM

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**SW8260B**

Analyst: **CK**

Bromoform	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Bromomethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Carbon Disulfide	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Carbon tetrachloride	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Chlorobenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Chloroethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Chloroform	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Chloromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
cis-1,2-Dichloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
cis-1,3-Dichloropropene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Dibromochloromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Dibromomethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Dichlorodifluoromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Ethylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Hexachlorobutadiene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Isopropylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
m,p-Xylene	ND	26.8	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Methyl tert-butyl ether	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Methylene Chloride	ND	67.0	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Naphthalene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
n-Butylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
n-Propylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
o-Xylene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
sec-Butylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Styrene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
tert-Butylbenzene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Tetrachloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Toluene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
trans-1,2-Dichloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
trans-1,3-Dichloropropene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Trichloroethene	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Trichlorofluoromethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Trichlorotrifluoroethane	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Vinyl Chloride	ND	13.4	µg/Kg-dry	1	7/22/2016 4:05:00 PM
Surr: 1,2-Dichloroethane-d4	111	71.5-123	%REC	1	7/22/2016 4:05:00 PM
Surr: 4-Bromofluorobenzene	94.1	75.7-122	%REC	1	7/22/2016 4:05:00 PM
Surr: Dibromofluoromethane	111	64.3-124	%REC	1	7/22/2016 4:05:00 PM
Surr: Toluene-d8	86.5	74.9-120	%REC	1	7/22/2016 4:05:00 PM

# Specialty Analytical

Date Reported: 28-Jul-16

**CLIENT:** Bergerabam  
**Project:** Fort James

**Lab Order:** 1607145

**Lab ID:** 1607145-025

**Collection Date:** 7/20/2016 4:45:00 PM

**Client Sample ID:** DRUM-1

**Matrix:** SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>TCLP ICP/MS METALS-TCLP LEACHED</b>		<b>E1311/6020</b>				Analyst: <b>JRC</b>
Arsenic, TCLP	ND	5.00		µg/L	10	7/27/2016 10:12:24 AM
Barium, TCLP	468	50.0		µg/L	10	7/27/2016 10:12:24 AM
Cadmium, TCLP	ND	5.00		µg/L	10	7/27/2016 10:12:24 AM
Chromium, TCLP	ND	5.00		µg/L	10	7/27/2016 10:12:24 AM
Lead, TCLP	ND	5.00		µg/L	10	7/27/2016 10:12:24 AM
Selenium, TCLP	ND	50.0		µg/L	10	7/27/2016 10:12:24 AM
Silver, TCLP	ND	5.00		µg/L	10	7/27/2016 10:12:24 AM
<b>TCLP TOTAL MERCURY</b>		<b>E7470A</b>				Analyst: <b>mlove</b>
Mercury, TCLP	ND	0.000500		mg/L	1	7/26/2016 12:44:08 PM
<b>PCB'S IN SOLIDS</b>		<b>SW 8082A</b>				Analyst: <b>ajr</b>
Aroclor 1016	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1221	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1232	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1242	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1248	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1254	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1260	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1262	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Aroclor 1268	ND	0.386		µg/Kg-dry	1	7/25/2016 11:42:08 AM
Surr: Decachlorobiphenyl	112	56.5-130		%REC	1	7/25/2016 11:42:08 AM

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 6020\_TCLP

Sample ID: <b>ICV</b>	SampType: <b>ICV</b>	TestCode: <b>6020_TCLP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26048</b>						
Client ID: <b>ICV</b>	Batch ID: <b>11683</b>	TestNo: <b>E1311/6020</b>	<b>SW3010A</b>	Analysis Date: <b>7/27/2016</b>	SeqNo: <b>351013</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, TCLP	50.4	0.100	50.00	0	101	90	110				
Barium, TCLP	48.7	1.00	50.00	0	97.5	90	110				
Cadmium, TCLP	51.1	0.100	50.00	0	102	90	110				
Chromium, TCLP	50.7	0.100	50.00	0	101	90	110				
Lead, TCLP	48.2	0.100	50.00	0	96.4	90	110				
Selenium, TCLP	50.9	1.00	50.00	0	102	90	110				
Silver, TCLP	52.1	0.100	50.00	0	104	90	110				

Sample ID: <b>MB-11683</b>	SampType: <b>MBLK</b>	TestCode: <b>6020_TCLP</b>	Units: <b>µg/L</b>	Prep Date: <b>7/26/2016</b>	RunNo: <b>26048</b>						
Client ID: <b>PBW</b>	Batch ID: <b>11683</b>	TestNo: <b>E1311/6020</b>	<b>SW3010A</b>	Analysis Date: <b>7/27/2016</b>	SeqNo: <b>351014</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, TCLP	ND	0.100									
Barium, TCLP	ND	1.00									
Cadmium, TCLP	ND	0.100									
Chromium, TCLP	ND	0.100									
Lead, TCLP	ND	0.100									
Selenium, TCLP	ND	1.00									
Silver, TCLP	ND	0.100									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 1 of 24
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# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 6020\_TCLP

Sample ID: <b>LCS-11683</b>	SampType: <b>LCS</b>	TestCode: <b>6020_TCLP</b>	Units: <b>µg/L</b>	Prep Date: <b>7/26/2016</b>	RunNo: <b>26048</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>11683</b>	TestNo: <b>E1311/6020</b>	<b>SW3010A</b>	Analysis Date: <b>7/27/2016</b>	SeqNo: <b>351015</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, TCLP	50.4	0.100	50.00	0	101	80	120				
Barium, TCLP	49.3	1.00	50.00	0	98.6	80	120				
Cadmium, TCLP	52.4	0.100	50.00	0	105	80	120				
Chromium, TCLP	50.4	0.100	50.00	0	101	80	120				
Lead, TCLP	49.9	0.100	50.00	0	99.7	80	120				
Selenium, TCLP	49.9	1.00	50.00	0	99.7	80	120				
Silver, TCLP	53.1	0.100	50.00	0	106	80	120				

Sample ID: <b>A1607146-001BDUP</b>	SampType: <b>DUP</b>	TestCode: <b>6020_TCLP</b>	Units: <b>µg/L</b>	Prep Date: <b>7/26/2016</b>	RunNo: <b>26048</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>11683</b>	TestNo: <b>E1311/6020</b>	<b>SW3010A</b>	Analysis Date: <b>7/27/2016</b>	SeqNo: <b>351017</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, TCLP	4.38	0.100						4.440	1.38	20	
Barium, TCLP	17.0	1.00						17.16	0.703	20	
Cadmium, TCLP	ND	0.100						0	0	20	
Chromium, TCLP	ND	0.100						0	0	20	RF
Lead, TCLP	ND	0.100						0	0	20	RF
Selenium, TCLP	ND	1.00						0	0	20	RF
Silver, TCLP	ND	0.100						0	0	20	RF

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 2 of 24
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# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 6020\_TCLP

Sample ID: <b>A1607146-001BMS</b>	SampType: <b>MS</b>	TestCode: <b>6020_TCLP</b>	Units: <b>µg/L</b>	Prep Date: <b>7/26/2016</b>	RunNo: <b>26048</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>11683</b>	TestNo: <b>E1311/6020</b>	<b>SW3010A</b>	Analysis Date: <b>7/27/2016</b>	SeqNo: <b>351018</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, TCLP	58.5	0.100	50.00	4.440	108	70	130				
Barium, TCLP	69.7	1.00	50.00	17.16	105	70	130				
Cadmium, TCLP	51.3	0.100	50.00	0.01154	103	70	130				
Chromium, TCLP	54.4	0.100	50.00	0.03760	109	70	130				
Lead, TCLP	52.7	0.100	50.00	0.05123	105	70	130				
Selenium, TCLP	53.5	1.00	50.00	0.2265	107	70	130				
Silver, TCLP	51.4	0.100	50.00	0.01003	103	70	130				

Sample ID: <b>A1607146-001BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>6020_TCLP</b>	Units: <b>µg/L</b>	Prep Date: <b>7/26/2016</b>	RunNo: <b>26048</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>11683</b>	TestNo: <b>E1311/6020</b>	<b>SW3010A</b>	Analysis Date: <b>7/27/2016</b>	SeqNo: <b>351019</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, TCLP	59.5	0.100	50.00	4.440	110	70	130	58.52	1.67	20	
Barium, TCLP	69.7	1.00	50.00	17.16	105	70	130	69.68	0.0659	20	
Cadmium, TCLP	52.0	0.100	50.00	0.01154	104	70	130	51.35	1.31	20	
Chromium, TCLP	55.2	0.100	50.00	0.03760	110	70	130	54.37	1.60	20	
Lead, TCLP	52.5	0.100	50.00	0.05123	105	70	130	52.75	0.418	20	
Selenium, TCLP	54.1	1.00	50.00	0.2265	108	70	130	53.50	1.17	20	
Silver, TCLP	51.1	0.100	50.00	0.01003	102	70	130	51.42	0.599	20	

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 3 of 24
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# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 6020\_TCLP

Sample ID: <b>CCV</b>	SampType: <b>CCV</b>	TestCode: <b>6020_TCLP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26048</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11683</b>	TestNo: <b>E1311/6020</b>	<b>SW3010A</b>	Analysis Date: <b>7/27/2016</b>	SeqNo: <b>351020</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, TCLP	49.5	0.100	50.00	0	99.0	90	110				
Barium, TCLP	46.9	1.00	50.00	0	93.8	90	110				
Cadmium, TCLP	49.9	0.100	50.00	0	99.8	90	110				
Chromium, TCLP	49.6	0.100	50.00	0	99.2	90	110				
Lead, TCLP	48.3	0.100	50.00	0	96.5	90	110				
Selenium, TCLP	50.1	1.00	50.00	0	100	90	110				
Silver, TCLP	51.9	0.100	50.00	0	104	90	110				

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8082LL\_S

Sample ID: <b>MB-11667</b>	SampType: <b>MBLK</b>	TestCode: <b>8082LL_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26002</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11667</b>	TestNo: <b>SW 8082A</b>	<b>SW3550C</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350590</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.333									
Aroclor 1221	ND	0.333									
Aroclor 1232	ND	0.333									
Aroclor 1242	ND	0.333									
Aroclor 1248	ND	0.333									
Aroclor 1254	ND	0.333									
Aroclor 1260	ND	0.333									
Aroclor 1262	ND	0.333									
Aroclor 1268	ND	0.333									
Surr: Decachlorobiphenyl	7090		6667		106	56.5	130				

Sample ID: <b>LCS-11667</b>	SampType: <b>LCS</b>	TestCode: <b>8082LL_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26002</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>11667</b>	TestNo: <b>SW 8082A</b>	<b>SW3550C</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350593</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260	70.5	0.333	66.67	0	106	44.3	137				

Sample ID: <b>LCSD-11667</b>	SampType: <b>LCSD</b>	TestCode: <b>8082LL_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26002</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>11667</b>	TestNo: <b>SW 8082A</b>	<b>SW3550C</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350594</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260	63.3	0.333	66.67	0	95.0	44.3	137	70.54	10.8	20	

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 5 of 24  
 O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8082LL\_S

Sample ID: <b>1016/1260 CCV</b>	SampType: <b>CCV</b>	TestCode: <b>8082LL_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26002</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11667</b>	TestNo: <b>SW 8082A</b>	<b>SW3550C</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350596</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260	68.6	0.333	66.67	0	103	85	115				

Sample ID: <b>1254 CCV</b>	SampType: <b>CCV</b>	TestCode: <b>8082LL_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26002</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11667</b>	TestNo: <b>SW 8082A</b>	<b>SW3550C</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350596</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1254	66.7	0.333	66.67	0	100	85	115				

Sample ID: <b>1016/1260 CCV</b>	SampType: <b>CCV</b>	TestCode: <b>8082LL_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26002</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11667</b>	TestNo: <b>SW 8082A</b>	<b>SW3550C</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350690</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016/1260	60.3	0.333	66.67	0	90.5	85	115				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 6 of 24
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# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: <b>CCV MSVWS-2055</b>		SampType: <b>CCV</b>		TestCode: <b>8260_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>26029</b>	
Client ID: <b>CCV</b>		Batch ID: <b>11673</b>		TestNo: <b>SW8260B</b>		<b>SW5035A</b>		Analysis Date: <b>7/22/2016</b>		SeqNo: <b>350821</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	74.5	10.0	80.00	0	93.2	80	120				
1,2-Dichloropropane	71.5	10.0	80.00	0	89.4	80	120				
Chloroform	81.0	10.0	80.00	0	101	80	120				
Ethylbenzene	69.6	10.0	80.00	0	87.0	80	120				
Toluene	77.8	10.0	80.00	0	97.2	80	120				
Vinyl Chloride	70.3	10.0	80.00	0	87.9	80	120				

Sample ID: <b>LCS MSVWS-2056</b>		SampType: <b>LCS</b>		TestCode: <b>8260_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>26029</b>	
Client ID: <b>LCSS</b>		Batch ID: <b>11673</b>		TestNo: <b>SW8260B</b>		<b>SW5035A</b>		Analysis Date: <b>7/22/2016</b>		SeqNo: <b>350822</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	36.7	10.0	40.00	0	91.9	82.4	121				
Benzene	37.1	10.0	40.00	0	92.8	74.3	136				
Chlorobenzene	35.7	10.0	40.00	0	89.2	85.9	121				
Toluene	40.0	10.0	40.00	0	99.9	85.1	123				
Trichloroethene	36.2	10.0	40.00	0	90.5	87.8	119				

Sample ID: <b>LCSD MSVWS-2056</b>		SampType: <b>LCSD</b>		TestCode: <b>8260_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>26029</b>	
Client ID: <b>LCSS02</b>		Batch ID: <b>11673</b>		TestNo: <b>SW8260B</b>		<b>SW5035A</b>		Analysis Date: <b>7/22/2016</b>		SeqNo: <b>350823</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	35.3	10.0	40.00	0	88.2	82.4	121	36.74	4.00	20	
Benzene	37.0	10.0	40.00	0	92.5	74.3	136	37.14	0.432	20	

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 7 of 24  
 O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: <b>LCSD MSVWS-2056</b>	SampType: <b>LCSD</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350823</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	35.6	10.0	40.00	0	89.0	85.9	121	35.66	0.140	20	
Toluene	39.9	10.0	40.00	0	99.7	85.1	123	39.96	0.251	20	
Trichloroethene	36.3	10.0	40.00	0	90.8	87.8	119	36.21	0.303	20	

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350824</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350824</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350824</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene Chloride	ND	50.0									
Naphthalene	ND	10.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Trichlorotrifluoroethane	ND	10.0									
Vinyl Chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	100		100.0		100	71.5	123				
Surr: 4-Bromofluorobenzene	92.3		100.0		92.3	75.7	122				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350824</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: Dibromofluoromethane	107		100.0		107	64.3	124				
Surr: Toluene-d8	87.0		100.0		87.0	74.9	120				

Sample ID: <b>CCV MSVWS-2055</b>	SampType: <b>CCV</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350855</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	75.9	10.0	80.00	0	94.9	80	120				
1,2-Dichloropropane	73.0	10.0	80.00	0	91.3	80	120				
Chloroform	80.2	10.0	80.00	0	100	80	120				
Ethylbenzene	69.0	10.0	80.00	0	86.2	80	120				
Toluene	77.6	10.0	80.00	0	96.9	80	120				
Vinyl Chloride	65.6	10.0	80.00	0	81.9	80	120				

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCB</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350856</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1,2-Tetrachloroethane	ND	10.0									
1,1,1-Trichloroethane	ND	10.0									
1,1,2,2-Tetrachloroethane	ND	10.0									
1,1,2-Trichloroethane	ND	10.0									
1,1-Dichloroethane	ND	10.0									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit	Page 11 of 24
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted reco	



# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: CCB	SampType: CCB	TestCode: 8260_5035	Units: µg/Kg	Prep Date:	RunNo: 26029						
Client ID: CCB	Batch ID: 11673	TestNo: SW8260B	SW5035A	Analysis Date: 7/25/2016	SeqNo: 350856						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	10.0									
1,1-Dichloropropene	ND	10.0									
1,2,3-Trichlorobenzene	ND	10.0									
1,2,3-Trichloropropane	ND	10.0									
1,2,4-Trichlorobenzene	ND	10.0									
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromo-3-chloropropane	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichlorobenzene	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,2-Dichloropropane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
1,3-Dichlorobenzene	ND	10.0									
1,3-Dichloropropane	ND	10.0									
1,4-Dichlorobenzene	ND	10.0									
2,2-Dichloropropane	ND	10.0									
2-Butanone	ND	40.0									
2-Chlorotoluene	ND	10.0									
2-Hexanone	ND	20.0									
4-Chlorotoluene	ND	10.0									
4-Isopropyltoluene	ND	10.0									
4-Methyl-2-pentanone	ND	40.0									
Acetone	ND	100									
Benzene	ND	10.0									
Bromobenzene	ND	10.0									
Bromochloromethane	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: CCB	SampType: CCB	TestCode: 8260_5035	Units: µg/Kg	Prep Date:	RunNo: 26029						
Client ID: CCB	Batch ID: 11673	TestNo: SW8260B	SW5035A	Analysis Date: 7/25/2016	SeqNo: 350856						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	ND	10.0									
Bromoform	ND	10.0									
Bromomethane	ND	10.0									
Carbon Disulfide	ND	10.0									
Carbon tetrachloride	ND	10.0									
Chlorobenzene	ND	10.0									
Chloroethane	ND	10.0									
Chloroform	ND	10.0									
Chloromethane	ND	10.0									
cis-1,2-Dichloroethene	ND	10.0									
cis-1,3-Dichloropropene	ND	10.0									
Dibromochloromethane	ND	10.0									
Dibromomethane	ND	10.0									
Dichlorodifluoromethane	ND	10.0									
Ethylbenzene	ND	10.0									
Hexachlorobutadiene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Methylene Chloride	ND	50.0									
Naphthalene	ND	10.0									
n-Butylbenzene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
sec-Butylbenzene	ND	10.0									
Styrene	ND	10.0									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_5035

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26029</b>						
Client ID: <b>CCB</b>	Batch ID: <b>11673</b>	TestNo: <b>SW8260B</b>	<b>SW5035A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350856</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
tert-Butylbenzene	ND	10.0									
Tetrachloroethene	ND	10.0									
Toluene	ND	10.0									
trans-1,2-Dichloroethene	ND	10.0									
trans-1,3-Dichloropropene	ND	10.0									
Trichloroethene	ND	10.0									
Trichlorofluoromethane	ND	10.0									
Trichlorotrifluoroethane	ND	10.0									
Vinyl Chloride	ND	10.0									
Surr: 1,2-Dichloroethane-d4	99.6		100.0		99.6	71.5	123				
Surr: 4-Bromofluorobenzene	94.2		100.0		94.2	75.7	122				
Surr: Dibromofluoromethane	107		100.0		107	64.3	124				
Surr: Toluene-d8	85.1		100.0		85.1	74.9	120				

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_W

Sample ID: <b>CCV MSVWS-2055</b>		SampType: <b>CCV</b>		TestCode: <b>8260_W</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>26044</b>	
Client ID: <b>CCV</b>		Batch ID: <b>R26044</b>		TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>				SeqNo: <b>350963</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.3	1.00	40.00	0	103	80	120				
1,2-Dichloropropane	46.1	1.00	40.00	0	115	80	120				
Chloroform	47.8	1.00	40.00	0	120	80	120				
Ethylbenzene	36.2	1.00	40.00	0	90.4	80	120				
Toluene	33.8	1.00	40.00	0	84.6	80	120				
Vinyl chloride	33.8	1.00	40.00	0	84.4	80	120				

Sample ID: <b>LCS MSVWS-2056</b>		SampType: <b>LCS</b>		TestCode: <b>8260_W</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>26044</b>	
Client ID: <b>LCSW</b>		Batch ID: <b>R26044</b>		TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>				SeqNo: <b>350964</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	40.2	1.00	40.00	0	101	61.2	135				
Benzene	41.7	0.300	40.00	0	104	76.8	125				
Chlorobenzene	33.0	1.00	40.00	0	82.6	81.1	116				
Toluene	33.0	1.00	40.00	0	82.5	82	122				
Trichloroethene	35.8	1.00	40.00	0	89.6	68.5	124				

Sample ID: <b>MB</b>		SampType: <b>MBLK</b>		TestCode: <b>8260_W</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>26044</b>	
Client ID: <b>PBW</b>		Batch ID: <b>R26044</b>		TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>				SeqNo: <b>350965</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	1.00									

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 15 of 24  
 O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26044</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R26044</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350965</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,1-Dichloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
1,1-Dichloropropene	ND	1.00									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,2-Dichloropropane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,3-Dichloropropane	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
2,2-Dichloropropane	ND	1.00									
2-Butanone	ND	10.0									
2-Chlorotoluene	ND	1.00									
2-Hexanone	ND	10.0									
4-Chlorotoluene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
4-Methyl-2-pentanone	ND	20.0									
Acetone	ND	50.0									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26044</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R26044</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350965</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acrylonitrile	ND	5.00									
Benzene	ND	0.300									
Bromobenzene	ND	1.00									
Bromochloromethane	ND	1.00									
Bromodichloromethane	ND	1.00									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon disulfide	ND	2.00									
Carbon tetrachloride	ND	1.00									
Chlorobenzene	ND	1.00									
Chloroethane	ND	1.00									
Chloroform	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Dibromochloromethane	ND	1.00									
Dibromomethane	ND	1.00									
Dichlorodifluoromethane	ND	1.00									
Ethylbenzene	ND	1.00									
Hexachlorobutadiene	ND	1.00									
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
Methylene chloride	ND	20.0									
Naphthalene	ND	1.00									
n-Butylbenzene	ND	1.00									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145  
28-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Fort James

**TestCode:** 8260\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26044</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R26044</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350965</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	1.00									
o-Xylene	ND	1.00									
sec-Butylbenzene	ND	1.00									
Styrene	ND	1.00									
tert-Butylbenzene	ND	1.00									
Tetrachloroethene	ND	1.00									
Toluene	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
Trichloroethene	ND	1.00									
Trichlorofluoromethane	ND	1.00									
Trichlorotrifluoroethane	ND	1.00									
Vinyl chloride	ND	1.00									
Surr: 1,2-Dichloroethane-d4	105		100.0		105	85.3	126				
Surr: 4-Bromofluorobenzene	110		100.0		110	78.1	120				
Surr: Dibromofluoromethane	109		100.0		109	84.2	122				
Surr: Toluene-d8	91.2		100.0		91.2	86.2	135				

Sample ID: <b>A1607172-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26044</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R26044</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350973</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	42.5	1.00	40.00	0	106	47.8	165				
Benzene	44.2	0.300	40.00	0	111	74.1	136				

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 18 of 24  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8260\_W

Sample ID: <b>A1607172-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26044</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R26044</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350973</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	33.2	1.00	40.00	0	83.0	70.7	133				
Toluene	34.0	1.00	40.00	0	85.1	68.4	135				
Trichloroethene	37.0	1.00	40.00	0	92.6	50.8	164				

Sample ID: <b>A1607172-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>26044</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R26044</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350974</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.6	1.00	40.00	0	104	47.8	165	42.54	2.33	20	
Benzene	44.5	0.300	40.00	0	111	74.1	136	44.25	0.608	20	
Chlorobenzene	33.5	1.00	40.00	0	83.7	70.7	133	33.22	0.809	20	
Toluene	34.4	1.00	40.00	0	85.9	68.4	135	34.03	0.965	20	
Trichloroethene	37.0	1.00	40.00	0	92.6	50.8	164	37.03	0	20	

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 19 of 24
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# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** 8270BN\_S

Sample ID: <b>CCV MSSWS-1394</b>	SampType: <b>CCV</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26026</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350782</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate      35.4      1.00      40.00      0      88.6      80      120

Sample ID: <b>LCS-11670</b>	SampType: <b>LCS</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350783</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate      1220      33.3      1666      0      72.9      50      130

Sample ID: <b>1607132-006BMS</b>	SampType: <b>MS</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350784</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate      1440      39.9      1995      0      71.9      50      130

Sample ID: <b>1607132-006BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg-dry</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350785</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Bis(2-ethylhexyl)phthalate      1450      39.9      1995      0      72.9      50      130      1435      1.30      30

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank O RSD is greater than RSDlimit	H Holding times for preparation or analysis exceeded R RPD outside accepted recovery limits	ND Not Detected at the Reporting Limit S Spike Recovery outside accepted reco	Page 20 of 24
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# QC SUMMARY REPORT

WO#: 1607145  
28-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Fort James

**TestCode:** 8270BN\_S

Sample ID: <b>MB-11670</b>	SampType: <b>MBLK</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date: <b>7/21/2016</b>	RunNo: <b>26026</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350786</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl)phthalate	ND	33.3									
Surr: 2-Fluorobiphenyl	2320		3333		69.7	52.6	93.2				
Surr: 4-Terphenyl-d14	2370		3333		71.1	49.8	118				
Surr: Nitrobenzene-d5	2350		3333		70.5	44.8	103				

Sample ID: <b>CCV MSSWS-1394</b>	SampType: <b>CCV</b>	TestCode: <b>8270BN_S</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>26026</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11670</b>	TestNo: <b>SW8270D</b>	<b>SW3550A</b>	Analysis Date: <b>7/25/2016</b>	SeqNo: <b>350807</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-ethylhexyl)phthalate	1100	33.3	1333	0	82.3	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 21 of 24  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco

# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam  
**Project:** Fort James

**TestCode:** HCID\_NW

Sample ID: <b>MB-11674</b>	SampType: <b>MBLK</b>	TestCode: <b>HCID_NW</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/22/2016</b>	RunNo: <b>26000</b>						
Client ID: <b>PBS</b>	Batch ID: <b>11674</b>	TestNo: <b>NWHCID</b>		Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350575</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	20.0									
Mineral Spirits	ND	20.0									
Kerosene	ND	50.0									
Diesel	ND	50.0									
Lube Oil	ND	100									
Hydraulic Oil	ND	100									
Surr: BFB	94.9		100.0		94.9	50	150				
Surr: o-Terphenyl	92.9		100.0		92.9	50	150				

Sample ID: <b>1607145-007BDUP</b>	SampType: <b>DUP</b>	TestCode: <b>HCID_NW</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>7/22/2016</b>	RunNo: <b>26000</b>						
Client ID: <b>B-10(8')</b>	Batch ID: <b>11674</b>	TestNo: <b>NWHCID</b>		Analysis Date: <b>7/22/2016</b>	SeqNo: <b>350578</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	24.3						0	0	20	
Mineral Spirits	ND	24.3						0	0	20	
Kerosene	ND	60.7						0	0	20	
Diesel	ND	60.7						0	0	20	
Lube Oil	ND	121						0	0	20	
Hydraulic Oil	ND	121						0	0	20	

**Qualifiers:** B Analyte detected in the associated Method Blank      H Holding times for preparation or analysis exceeded      ND Not Detected at the Reporting Limit      Page 22 of 24  
O RSD is greater than RSDlimit      R RPD outside accepted recovery limits      S Spike Recovery outside accepted reco



# QC SUMMARY REPORT

WO#: 1607145

28-Jul-16

## Specialty Analytical

**Client:** Bergerabam

**Project:** Fort James

**TestCode:** HG\_CT

Sample ID: <b>1607145-025BMSD</b>	SampType: <b>MSD</b>	TestCode: <b>HG_CT</b>	Units: <b>mg/L</b>	Prep Date: <b>7/25/2016</b>	RunNo: <b>26030</b>						
Client ID: <b>DRUM-1</b>	Batch ID: <b>11681</b>	TestNo: <b>E7470A</b>	<b>E245.1</b>	Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350833</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury, TCLP	0.0189	0.000500	0.02000	0.0001680	93.6	69.5	125	0.01892	0.212	20	

Sample ID: <b>11681-CCV</b>	SampType: <b>CCV</b>	TestCode: <b>HG_CT</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>26030</b>						
Client ID: <b>CCV</b>	Batch ID: <b>11681</b>	TestNo: <b>E7470A</b>	<b>E245.1</b>	Analysis Date: <b>7/26/2016</b>	SeqNo: <b>350840</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury, TCLP	0.00425	0.000100	0.004000	0	106	90	110				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit Page 24 of 24  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted reco

## KEY TO FLAGS

Rev. May 12, 2010

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- \* The result for this parameter was greater than the maximum contaminant level of the TCLP regulatory limit.



April 02, 2021

Service Request No:K2102814

Matthew Grzegorzewski  
Georgia-Pacific Consumer Products (Camas) LLC  
401 Northeast Adams Street  
Camas, WA 98607

**Laboratory Results for: Environmental Waste and Landfill Analysis - 2021**

Dear Matthew,

Enclosed are the results of the sample(s) submitted to our laboratory March 18, 2021  
For your reference, these analyses have been assigned our service request number **K2102814**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3312. You may also contact me via email at [Todd.Poyfair@alsglobal.com](mailto:Todd.Poyfair@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

for Todd Poyfair  
Technical Services  
Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626  
PHONE +1 360 577 7222 | FAX +1 360 636 1068  
ALS Group USA, Corp.  
dba ALS Environmental



# Narrative Documents

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Received:** 03/18/2021

### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

#### Sample Receipt:

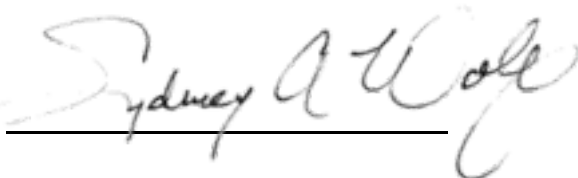
Seven water samples were received for analysis at ALS Environmental on 03/18/2021. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

#### Volatiles by GC/MS:

Several analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0329F004.D. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS13\0326F002.D: Bromomethane and Dichlorodifluoromethane. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The ALS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Approved by



Date

04/02/2021



**SAMPLE DETECTION SUMMARY**

**CLIENT ID: MW-1-03182021** **Lab ID: K2102814-001**

Analyte	Results	Flag	MDL	MRL	Units	Method
Tetrachloroethene (PCE)	0.94			0.50	ug/L	8260C

**CLIENT ID: MW-3-03182021** **Lab ID: K2102814-003**

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1-Dichloroethene	1.2			0.50	ug/L	8260C
Trichloroethene (TCE)	8.2			0.50	ug/L	8260C

**CLIENT ID: MW-5-03182021** **Lab ID: K2102814-005**

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	0.51			0.50	ug/L	8260C
Trichloroethene (TCE)	1.2			0.50	ug/L	8260C

**CLIENT ID: DUP-1-03182021** **Lab ID: K2102814-006**

Analyte	Results	Flag	MDL	MRL	Units	Method
cis-1,2-Dichloroethene	0.54			0.50	ug/L	8260C
Trichloroethene (TCE)	1.3			0.50	ug/L	8260C



## Sample Receipt Information

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021

**Service Request:**K2102814

**SAMPLE CROSS-REFERENCE**

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
K2102814-001	MW-1-03182021	3/18/2021	0932
K2102814-002	MW-2-03182021	3/18/2021	0919
K2102814-003	MW-3-03182021	3/18/2021	1044
K2102814-004	MW-4-03182021	3/18/2021	1024
K2102814-005	MW-5-03182021	3/18/2021	0826
K2102814-006	DUP-1-03182021	3/18/2021	1200
K2102814-007	TB-01-03182021	3/18/2021	0730



CHAIN OF CUSTODY  
115735

001

SR# K2102814  
COC Set X of X  
COC# \_\_\_\_\_

1317 South 13th Ave, Kelso, WA 98626 Phone (360) 577-7222 / 800-695-7222 / FAX (360) 636-1068  
www.alsglobal.com

Project Name		Project Number:		NUMBER OF CONTAINERS	48H		7D	14D		28D		180D		Remarks
Project Manager	Company	Address	Phone #		300.0 / NO3	SM 5210 B / BOD 5 Day	SM 2540 C / TDS	SM 2320 B / Alkalinity Titr	SM 2320 B / Bicarb Alk	SM 2320 B / Carbonate Alk	300.0 / Chloride	300.0 / SO4	SM 4500-NH3 G / Ammonia	
Quinn Burke-Anderson	GP Comas Mill	401 NE Adams Street	503-741-7046											
Andrew Wuser														
CLIENT SAMPLE ID	LABID	SAMPLING Date	Time	Matrix										
1.MW-1-03182021		3/18/21	0932	Water	3									X
2.MW-2-03182021		3/18/21	0919	Water	3									X
3.MW-3-03182021		3/18/21	1044	Water	3									X
4.MW-4-03182021		3/18/21	1029	Water	3									X
5.MW-5-03182021		3/18/21	0823	Water	3									X
6.DWP-1-03182021		3/18/21	1200	Water	3									X
7.TB-01-03182021		3/19/21	0730	Water	2									X
8.														
9.														
10.														

<b>Report Requirements</b> <input type="checkbox"/> I. Routine Report: Method Blank, Surrogate, as required <input type="checkbox"/> II. Report Dup., MS, MSD as required <input type="checkbox"/> III. CLP Like Summary (no raw data) <input type="checkbox"/> IV. Data Validation Report <input type="checkbox"/> V. EDD	<b>Invoice Information</b> P.O.# _____ Bill To: _____ _____ _____	Circle which metals are to be analyzed Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Ti Sn V Zn Hg	
	<b>Turnaround Requirements</b> <input type="checkbox"/> 24 hr. _____ 48 hr. <input type="checkbox"/> 5 Day <input checked="" type="checkbox"/> Standard	Special Instructions/Comments: _____ *Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other _____ (Circle One)	
	Requested Report Date _____		

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature <i>[Signature]</i>	Signature <i>[Signature]</i>	Signature	Signature	Signature	Signature
Printed Name Andrew Wuser	Printed Name Andrew Wuser	Printed Name	Printed Name	Printed Name	Printed Name
Firm Blaine Tech Services	Firm Blaine Tech Services	Firm	Firm	Firm	Firm
Date/Time 3/18/21 1320	Date/Time 3/18/21 1320	Date/Time	Date/Time	Date/Time	Date/Time

**Cooler Receipt and Preservation Form**

Client GP Camas Service Request K21 02814  
 Received: 3/18/21 Opened: 3/18/21 By: CG Unloaded: 3/18/21 By: CG

1. Samples were received via? **USPS** **Fed Ex** **UPS** **DHL** **PDX** **Courier** **Hand Delivered**
2. Samples were received in: (circle) **Cooler** **Box** **Envelope** **Other** **NA**
3. Were custody seals on coolers? **NA** **Y** **N** If yes, how many and where? \_\_\_\_\_  
 If present, were custody seals intact? **Y** **N** If present, were they signed and dated? **Y** **N**
4. Was a Temperature Blank present in cooler? **NA** **Y** **N** If yes, notate the temperature in the appropriate column below:  
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? **NA** **Y** **N**  
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. **NA** **Y** **N**
- If applicable, tissue samples were received: **Frozen** **Partially Thawed** **Thawed**

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID <b>NA</b>	Out of temp Indicate with "X"	PM Notified If out of temp	Tracking Number <b>NA</b>	Filed
<u>2.6</u>	<u>          </u>	<u>IR01</u>					

6. Packing material: **Inserts** **Baggies** **Bubble Wrap** **Gel Packs** **Wet Ice** **Dry Ice** **Sleeves** \_\_\_\_\_
7. Were custody papers properly filled out (ink, signed, etc.)? **NA** **Y** **N**
8. Were samples received in good condition (unbroken) **NA** **Y** **N**
9. Were all sample labels complete (ie, analysis, preservation, etc.)? **NA** **Y** **N**
10. Did all sample labels and tags agree with custody papers? **NA** **Y** **N**
11. Were appropriate bottles/containers and volumes received for the tests indicated? **NA** **Y** **N**
12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below **NA** **Y** **N**
13. Were VOA vials received without headspace? Indicate in the table below. **NA** **Y** **N**
14. Was C12/Res negative? **NA** **Y** **N**

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

### **Inorganic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

### **Metals Data Qualifiers**

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Organic Data Qualifiers**

- \* The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.  
*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.  
  - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

### **Additional Petroleum Hydrocarbon Specific Qualifiers**

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.



**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso  
State Certifications, Accreditations, and Licenses**

<b>Agency</b>	<b>Web Site</b>	<b>Number</b>
Alaska DEH	<a href="http://dec.alaska.gov/eh/lab/cs/csapproval.htm">http://dec.alaska.gov/eh/lab/cs/csapproval.htm</a>	UST-040
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0339
Arkansas - DEQ	<a href="http://www.adeq.state.ar.us/techsvs/labcert.htm">http://www.adeq.state.ar.us/techsvs/labcert.htm</a>	88-0637
California DHS (ELAP)	<a href="http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx">http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx</a>	2795
DOD ELAP	<a href="http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm">http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm</a>	L16-58-R4
Florida DOH	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E87412
Hawaii DOH	<a href="http://health.hawaii.gov/">http://health.hawaii.gov/</a>	-
ISO 17025	<a href="http://www.pjllabs.com/">http://www.pjllabs.com/</a>	L16-57
Louisiana DEQ	<a href="http://www.deq.louisiana.gov/page/la-lab-accreditation">http://www.deq.louisiana.gov/page/la-lab-accreditation</a>	03016
Maine DHS	<a href="http://www.maine.gov/dhhs/">http://www.maine.gov/dhhs/</a>	WA01276
Minnesota DOH	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	053-999-457
Nevada DEP	<a href="http://ndep.nv.gov/bsdw/labservice.htm">http://ndep.nv.gov/bsdw/labservice.htm</a>	WA01276
New Jersey DEP	<a href="http://www.nj.gov/dep/enforcement/oqa.html">http://www.nj.gov/dep/enforcement/oqa.html</a>	WA005
New York - DOH	<a href="https://www.wadsworth.org/regulatory/elap">https://www.wadsworth.org/regulatory/elap</a>	12060
North Carolina DEQ	<a href="https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification">https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification</a>	605
Oklahoma DEQ	<a href="http://www.deq.state.ok.us/CSDnew/labcert.htm">http://www.deq.state.ok.us/CSDnew/labcert.htm</a>	9801
Oregon – DEQ (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	WA100010
South Carolina DHEC	<a href="http://www.scdhec.gov/environment/EnvironmentalLabCertification/">http://www.scdhec.gov/environment/EnvironmentalLabCertification/</a>	61002
Texas CEQ	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704427
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C544
Wyoming (EPA Region 8)	<a href="https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water">https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water</a>	-
Kelso Laboratory Website	<a href="http://www.alsglobal.com">www.alsglobal.com</a>	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at [www.ALSGlobal.com](http://www.ALSGlobal.com) or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

## Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.  
dba ALS Environmental

Analyst Summary report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021/

**Service Request:** K2102814

**Sample Name:** MW-1-03182021  
**Lab Code:** K2102814-001  
**Sample Matrix:** Water

**Date Collected:** 03/18/21  
**Date Received:** 03/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** MW-2-03182021  
**Lab Code:** K2102814-002  
**Sample Matrix:** Water

**Date Collected:** 03/18/21  
**Date Received:** 03/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** MW-3-03182021  
**Lab Code:** K2102814-003  
**Sample Matrix:** Water

**Date Collected:** 03/18/21  
**Date Received:** 03/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** MW-4-03182021  
**Lab Code:** K2102814-004  
**Sample Matrix:** Water

**Date Collected:** 03/18/21  
**Date Received:** 03/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
MKANALY

**Sample Name:** MW-5-03182021  
**Lab Code:** K2102814-005  
**Sample Matrix:** Water

**Date Collected:** 03/18/21  
**Date Received:** 03/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
JJAMES

**ALS Group USA, Corp.**  
dba ALS Environmental

Analyst Summary report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021/

**Service Request:** K2102814

**Sample Name:** DUP-1-03182021  
**Lab Code:** K2102814-006  
**Sample Matrix:** Water

**Date Collected:** 03/18/21  
**Date Received:** 03/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
JJAMES

**Sample Name:** TB-01-03182021  
**Lab Code:** K2102814-007  
**Sample Matrix:** Water

**Date Collected:** 03/18/21  
**Date Received:** 03/18/21

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
JJAMES



# Sample Results

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 09:32  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-1-03182021  
**Lab Code:** K2102814-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/26/21 18:14	
Benzene	ND U	0.50	1	03/26/21 18:14	
Bromobenzene	ND U	2.0	1	03/26/21 18:14	
Bromochloromethane	ND U	0.50	1	03/26/21 18:14	
Bromodichloromethane	ND U	0.50	1	03/26/21 18:14	
Bromoform	ND U	0.50	1	03/26/21 18:14	
Bromomethane	ND U	0.50	1	03/26/21 18:14	*
2-Butanone (MEK)	ND U	20	1	03/26/21 18:14	
n-Butylbenzene	ND U	4.0	1	03/26/21 18:14	
sec-Butylbenzene	ND U	2.0	1	03/26/21 18:14	
tert-Butylbenzene	ND U	2.0	1	03/26/21 18:14	
Carbon Disulfide	ND U	0.50	1	03/26/21 18:14	
Carbon Tetrachloride	ND U	0.50	1	03/26/21 18:14	
Chlorobenzene	ND U	0.50	1	03/26/21 18:14	
Chloroethane	ND U	0.50	1	03/26/21 18:14	
Chloroform	ND U	0.50	1	03/26/21 18:14	
Chloromethane	ND U	0.50	1	03/26/21 18:14	
2-Chlorotoluene	ND U	2.0	1	03/26/21 18:14	
4-Chlorotoluene	ND U	2.0	1	03/26/21 18:14	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/26/21 18:14	
Dibromochloromethane	ND U	0.50	1	03/26/21 18:14	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/26/21 18:14	
Dibromomethane	ND U	0.50	1	03/26/21 18:14	
1,2-Dichlorobenzene	ND U	0.50	1	03/26/21 18:14	
1,3-Dichlorobenzene	ND U	0.50	1	03/26/21 18:14	
1,4-Dichlorobenzene	ND U	0.50	1	03/26/21 18:14	
Dichlorodifluoromethane	ND U	0.50	1	03/26/21 18:14	*
1,1-Dichloroethane	ND U	0.50	1	03/26/21 18:14	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/26/21 18:14	
1,1-Dichloroethene	ND U	0.50	1	03/26/21 18:14	
cis-1,2-Dichloroethene	ND U	0.50	1	03/26/21 18:14	
trans-1,2-Dichloroethene	ND U	0.50	1	03/26/21 18:14	
1,2-Dichloropropane	ND U	0.50	1	03/26/21 18:14	
1,3-Dichloropropane	ND U	0.50	1	03/26/21 18:14	
2,2-Dichloropropane	ND U	0.50	1	03/26/21 18:14	
1,1-Dichloropropene	ND U	0.50	1	03/26/21 18:14	
cis-1,3-Dichloropropene	ND U	0.50	1	03/26/21 18:14	
trans-1,3-Dichloropropene	ND U	0.50	1	03/26/21 18:14	
Ethylbenzene	ND U	0.50	1	03/26/21 18:14	
Hexachlorobutadiene	ND U	2.0	1	03/26/21 18:14	
2-Hexanone	ND U	20	1	03/26/21 18:14	

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 09:32  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-1-03182021  
**Lab Code:** K2102814-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/26/21 18:14	
4-Isopropyltoluene	ND U	2.0	1	03/26/21 18:14	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/26/21 18:14	
Methylene Chloride	ND U	2.0	1	03/26/21 18:14	
Naphthalene	ND U	2.0	1	03/26/21 18:14	
n-Propylbenzene	ND U	2.0	1	03/26/21 18:14	
Styrene	ND U	0.50	1	03/26/21 18:14	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/26/21 18:14	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/26/21 18:14	
Tetrachloroethene (PCE)	<b>0.94</b>	0.50	1	03/26/21 18:14	
Toluene	ND U	0.50	1	03/26/21 18:14	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/26/21 18:14	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/26/21 18:14	
1,1,2-Trichloroethane	ND U	0.50	1	03/26/21 18:14	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/26/21 18:14	
Trichloroethene (TCE)	ND U	0.50	1	03/26/21 18:14	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/26/21 18:14	
1,2,3-Trichloropropane	ND U	0.50	1	03/26/21 18:14	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/26/21 18:14	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/26/21 18:14	
Vinyl Chloride	ND U	0.50	1	03/26/21 18:14	
o-Xylene	ND U	0.50	1	03/26/21 18:14	
m,p-Xylenes	ND U	0.50	1	03/26/21 18:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	03/26/21 18:14	
Dibromofluoromethane	92	73 - 122	03/26/21 18:14	
Toluene-d8	96	65 - 144	03/26/21 18:14	



**ALS Group USA, Corp.**  
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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 09:19  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-2-03182021  
**Lab Code:** K2102814-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/26/21 18:41	
Benzene	ND U	0.50	1	03/26/21 18:41	
Bromobenzene	ND U	2.0	1	03/26/21 18:41	
Bromochloromethane	ND U	0.50	1	03/26/21 18:41	
Bromodichloromethane	ND U	0.50	1	03/26/21 18:41	
Bromoform	ND U	0.50	1	03/26/21 18:41	
Bromomethane	ND U	0.50	1	03/26/21 18:41	*
2-Butanone (MEK)	ND U	20	1	03/26/21 18:41	
n-Butylbenzene	ND U	4.0	1	03/26/21 18:41	
sec-Butylbenzene	ND U	2.0	1	03/26/21 18:41	
tert-Butylbenzene	ND U	2.0	1	03/26/21 18:41	
Carbon Disulfide	ND U	0.50	1	03/26/21 18:41	
Carbon Tetrachloride	ND U	0.50	1	03/26/21 18:41	
Chlorobenzene	ND U	0.50	1	03/26/21 18:41	
Chloroethane	ND U	0.50	1	03/26/21 18:41	
Chloroform	ND U	0.50	1	03/26/21 18:41	
Chloromethane	ND U	0.50	1	03/26/21 18:41	
2-Chlorotoluene	ND U	2.0	1	03/26/21 18:41	
4-Chlorotoluene	ND U	2.0	1	03/26/21 18:41	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/26/21 18:41	
Dibromochloromethane	ND U	0.50	1	03/26/21 18:41	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/26/21 18:41	
Dibromomethane	ND U	0.50	1	03/26/21 18:41	
1,2-Dichlorobenzene	ND U	0.50	1	03/26/21 18:41	
1,3-Dichlorobenzene	ND U	0.50	1	03/26/21 18:41	
1,4-Dichlorobenzene	ND U	0.50	1	03/26/21 18:41	
Dichlorodifluoromethane	ND U	0.50	1	03/26/21 18:41	*
1,1-Dichloroethane	ND U	0.50	1	03/26/21 18:41	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/26/21 18:41	
1,1-Dichloroethene	ND U	0.50	1	03/26/21 18:41	
cis-1,2-Dichloroethene	ND U	0.50	1	03/26/21 18:41	
trans-1,2-Dichloroethene	ND U	0.50	1	03/26/21 18:41	
1,2-Dichloropropane	ND U	0.50	1	03/26/21 18:41	
1,3-Dichloropropane	ND U	0.50	1	03/26/21 18:41	
2,2-Dichloropropane	ND U	0.50	1	03/26/21 18:41	
1,1-Dichloropropene	ND U	0.50	1	03/26/21 18:41	
cis-1,3-Dichloropropene	ND U	0.50	1	03/26/21 18:41	
trans-1,3-Dichloropropene	ND U	0.50	1	03/26/21 18:41	
Ethylbenzene	ND U	0.50	1	03/26/21 18:41	
Hexachlorobutadiene	ND U	2.0	1	03/26/21 18:41	
2-Hexanone	ND U	20	1	03/26/21 18:41	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 09:19  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-2-03182021  
**Lab Code:** K2102814-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/26/21 18:41	
4-Isopropyltoluene	ND U	2.0	1	03/26/21 18:41	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/26/21 18:41	
Methylene Chloride	ND U	2.0	1	03/26/21 18:41	
Naphthalene	ND U	2.0	1	03/26/21 18:41	
n-Propylbenzene	ND U	2.0	1	03/26/21 18:41	
Styrene	ND U	0.50	1	03/26/21 18:41	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/26/21 18:41	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/26/21 18:41	
Tetrachloroethene (PCE)	ND U	0.50	1	03/26/21 18:41	
Toluene	ND U	0.50	1	03/26/21 18:41	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/26/21 18:41	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/26/21 18:41	
1,1,2-Trichloroethane	ND U	0.50	1	03/26/21 18:41	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/26/21 18:41	
Trichloroethene (TCE)	ND U	0.50	1	03/26/21 18:41	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/26/21 18:41	
1,2,3-Trichloropropane	ND U	0.50	1	03/26/21 18:41	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/26/21 18:41	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/26/21 18:41	
Vinyl Chloride	ND U	0.50	1	03/26/21 18:41	
o-Xylene	ND U	0.50	1	03/26/21 18:41	
m,p-Xylenes	ND U	0.50	1	03/26/21 18:41	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	03/26/21 18:41	
Dibromofluoromethane	87	73 - 122	03/26/21 18:41	
Toluene-d8	94	65 - 144	03/26/21 18:41	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 10:44  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-3-03182021  
**Lab Code:** K2102814-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/26/21 19:07	
Benzene	ND U	0.50	1	03/26/21 19:07	
Bromobenzene	ND U	2.0	1	03/26/21 19:07	
Bromochloromethane	ND U	0.50	1	03/26/21 19:07	
Bromodichloromethane	ND U	0.50	1	03/26/21 19:07	
Bromoform	ND U	0.50	1	03/26/21 19:07	
Bromomethane	ND U	0.50	1	03/26/21 19:07	*
2-Butanone (MEK)	ND U	20	1	03/26/21 19:07	
n-Butylbenzene	ND U	4.0	1	03/26/21 19:07	
sec-Butylbenzene	ND U	2.0	1	03/26/21 19:07	
tert-Butylbenzene	ND U	2.0	1	03/26/21 19:07	
Carbon Disulfide	ND U	0.50	1	03/26/21 19:07	
Carbon Tetrachloride	ND U	0.50	1	03/26/21 19:07	
Chlorobenzene	ND U	0.50	1	03/26/21 19:07	
Chloroethane	ND U	0.50	1	03/26/21 19:07	
Chloroform	ND U	0.50	1	03/26/21 19:07	
Chloromethane	ND U	0.50	1	03/26/21 19:07	
2-Chlorotoluene	ND U	2.0	1	03/26/21 19:07	
4-Chlorotoluene	ND U	2.0	1	03/26/21 19:07	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/26/21 19:07	
Dibromochloromethane	ND U	0.50	1	03/26/21 19:07	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/26/21 19:07	
Dibromomethane	ND U	0.50	1	03/26/21 19:07	
1,2-Dichlorobenzene	ND U	0.50	1	03/26/21 19:07	
1,3-Dichlorobenzene	ND U	0.50	1	03/26/21 19:07	
1,4-Dichlorobenzene	ND U	0.50	1	03/26/21 19:07	
Dichlorodifluoromethane	ND U	0.50	1	03/26/21 19:07	*
1,1-Dichloroethane	ND U	0.50	1	03/26/21 19:07	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/26/21 19:07	
1,1-Dichloroethene	1.2	0.50	1	03/26/21 19:07	
cis-1,2-Dichloroethene	ND U	0.50	1	03/26/21 19:07	
trans-1,2-Dichloroethene	ND U	0.50	1	03/26/21 19:07	
1,2-Dichloropropane	ND U	0.50	1	03/26/21 19:07	
1,3-Dichloropropane	ND U	0.50	1	03/26/21 19:07	
2,2-Dichloropropane	ND U	0.50	1	03/26/21 19:07	
1,1-Dichloropropene	ND U	0.50	1	03/26/21 19:07	
cis-1,3-Dichloropropene	ND U	0.50	1	03/26/21 19:07	
trans-1,3-Dichloropropene	ND U	0.50	1	03/26/21 19:07	
Ethylbenzene	ND U	0.50	1	03/26/21 19:07	
Hexachlorobutadiene	ND U	2.0	1	03/26/21 19:07	
2-Hexanone	ND U	20	1	03/26/21 19:07	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 10:44  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-3-03182021  
**Lab Code:** K2102814-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/26/21 19:07	
4-Isopropyltoluene	ND U	2.0	1	03/26/21 19:07	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/26/21 19:07	
Methylene Chloride	ND U	2.0	1	03/26/21 19:07	
Naphthalene	ND U	2.0	1	03/26/21 19:07	
n-Propylbenzene	ND U	2.0	1	03/26/21 19:07	
Styrene	ND U	0.50	1	03/26/21 19:07	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/26/21 19:07	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/26/21 19:07	
Tetrachloroethene (PCE)	ND U	0.50	1	03/26/21 19:07	
Toluene	ND U	0.50	1	03/26/21 19:07	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/26/21 19:07	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/26/21 19:07	
1,1,2-Trichloroethane	ND U	0.50	1	03/26/21 19:07	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/26/21 19:07	
Trichloroethene (TCE)	8.2	0.50	1	03/26/21 19:07	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/26/21 19:07	
1,2,3-Trichloropropane	ND U	0.50	1	03/26/21 19:07	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/26/21 19:07	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/26/21 19:07	
Vinyl Chloride	ND U	0.50	1	03/26/21 19:07	
o-Xylene	ND U	0.50	1	03/26/21 19:07	
m,p-Xylenes	ND U	0.50	1	03/26/21 19:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	03/26/21 19:07	
Dibromofluoromethane	89	73 - 122	03/26/21 19:07	
Toluene-d8	98	65 - 144	03/26/21 19:07	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 10:24  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-4-03182021  
**Lab Code:** K2102814-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/26/21 19:34	
Benzene	ND U	0.50	1	03/26/21 19:34	
Bromobenzene	ND U	2.0	1	03/26/21 19:34	
Bromochloromethane	ND U	0.50	1	03/26/21 19:34	
Bromodichloromethane	ND U	0.50	1	03/26/21 19:34	
Bromoform	ND U	0.50	1	03/26/21 19:34	
Bromomethane	ND U	0.50	1	03/26/21 19:34	*
2-Butanone (MEK)	ND U	20	1	03/26/21 19:34	
n-Butylbenzene	ND U	4.0	1	03/26/21 19:34	
sec-Butylbenzene	ND U	2.0	1	03/26/21 19:34	
tert-Butylbenzene	ND U	2.0	1	03/26/21 19:34	
Carbon Disulfide	ND U	0.50	1	03/26/21 19:34	
Carbon Tetrachloride	ND U	0.50	1	03/26/21 19:34	
Chlorobenzene	ND U	0.50	1	03/26/21 19:34	
Chloroethane	ND U	0.50	1	03/26/21 19:34	
Chloroform	ND U	0.50	1	03/26/21 19:34	
Chloromethane	ND U	0.50	1	03/26/21 19:34	
2-Chlorotoluene	ND U	2.0	1	03/26/21 19:34	
4-Chlorotoluene	ND U	2.0	1	03/26/21 19:34	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/26/21 19:34	
Dibromochloromethane	ND U	0.50	1	03/26/21 19:34	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/26/21 19:34	
Dibromomethane	ND U	0.50	1	03/26/21 19:34	
1,2-Dichlorobenzene	ND U	0.50	1	03/26/21 19:34	
1,3-Dichlorobenzene	ND U	0.50	1	03/26/21 19:34	
1,4-Dichlorobenzene	ND U	0.50	1	03/26/21 19:34	
Dichlorodifluoromethane	ND U	0.50	1	03/26/21 19:34	*
1,1-Dichloroethane	ND U	0.50	1	03/26/21 19:34	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/26/21 19:34	
1,1-Dichloroethene	ND U	0.50	1	03/26/21 19:34	
cis-1,2-Dichloroethene	ND U	0.50	1	03/26/21 19:34	
trans-1,2-Dichloroethene	ND U	0.50	1	03/26/21 19:34	
1,2-Dichloropropane	ND U	0.50	1	03/26/21 19:34	
1,3-Dichloropropane	ND U	0.50	1	03/26/21 19:34	
2,2-Dichloropropane	ND U	0.50	1	03/26/21 19:34	
1,1-Dichloropropene	ND U	0.50	1	03/26/21 19:34	
cis-1,3-Dichloropropene	ND U	0.50	1	03/26/21 19:34	
trans-1,3-Dichloropropene	ND U	0.50	1	03/26/21 19:34	
Ethylbenzene	ND U	0.50	1	03/26/21 19:34	
Hexachlorobutadiene	ND U	2.0	1	03/26/21 19:34	
2-Hexanone	ND U	20	1	03/26/21 19:34	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 10:24  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-4-03182021  
**Lab Code:** K2102814-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/26/21 19:34	
4-Isopropyltoluene	ND U	2.0	1	03/26/21 19:34	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/26/21 19:34	
Methylene Chloride	ND U	2.0	1	03/26/21 19:34	
Naphthalene	ND U	2.0	1	03/26/21 19:34	
n-Propylbenzene	ND U	2.0	1	03/26/21 19:34	
Styrene	ND U	0.50	1	03/26/21 19:34	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/26/21 19:34	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/26/21 19:34	
Tetrachloroethene (PCE)	ND U	0.50	1	03/26/21 19:34	
Toluene	ND U	0.50	1	03/26/21 19:34	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/26/21 19:34	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/26/21 19:34	
1,1,2-Trichloroethane	ND U	0.50	1	03/26/21 19:34	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/26/21 19:34	
Trichloroethene (TCE)	ND U	0.50	1	03/26/21 19:34	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/26/21 19:34	
1,2,3-Trichloropropane	ND U	0.50	1	03/26/21 19:34	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/26/21 19:34	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/26/21 19:34	
Vinyl Chloride	ND U	0.50	1	03/26/21 19:34	
o-Xylene	ND U	0.50	1	03/26/21 19:34	
m,p-Xylenes	ND U	0.50	1	03/26/21 19:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	86	68 - 117	03/26/21 19:34	
Dibromofluoromethane	87	73 - 122	03/26/21 19:34	
Toluene-d8	96	65 - 144	03/26/21 19:34	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 08:26  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-5-03182021  
**Lab Code:** K2102814-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/29/21 20:13	
Benzene	ND U	0.50	1	03/29/21 20:13	
Bromobenzene	ND U	2.0	1	03/29/21 20:13	
Bromochloromethane	ND U	0.50	1	03/29/21 20:13	
Bromodichloromethane	ND U	0.50	1	03/29/21 20:13	
Bromoform	ND U	0.50	1	03/29/21 20:13	
Bromomethane	ND U	0.50	1	03/29/21 20:13	*
2-Butanone (MEK)	ND U	20	1	03/29/21 20:13	
n-Butylbenzene	ND U	4.0	1	03/29/21 20:13	
sec-Butylbenzene	ND U	2.0	1	03/29/21 20:13	
tert-Butylbenzene	ND U	2.0	1	03/29/21 20:13	
Carbon Disulfide	ND U	0.50	1	03/29/21 20:13	
Carbon Tetrachloride	ND U	0.50	1	03/29/21 20:13	
Chlorobenzene	ND U	0.50	1	03/29/21 20:13	
Chloroethane	ND U	0.50	1	03/29/21 20:13	
Chloroform	ND U	0.50	1	03/29/21 20:13	
Chloromethane	ND U	0.50	1	03/29/21 20:13	
2-Chlorotoluene	ND U	2.0	1	03/29/21 20:13	
4-Chlorotoluene	ND U	2.0	1	03/29/21 20:13	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/29/21 20:13	
Dibromochloromethane	ND U	0.50	1	03/29/21 20:13	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/29/21 20:13	
Dibromomethane	ND U	0.50	1	03/29/21 20:13	
1,2-Dichlorobenzene	ND U	0.50	1	03/29/21 20:13	
1,3-Dichlorobenzene	ND U	0.50	1	03/29/21 20:13	
1,4-Dichlorobenzene	ND U	0.50	1	03/29/21 20:13	
Dichlorodifluoromethane	ND U	0.50	1	03/29/21 20:13	
1,1-Dichloroethane	ND U	0.50	1	03/29/21 20:13	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/29/21 20:13	
1,1-Dichloroethene	ND U	0.50	1	03/29/21 20:13	*
cis-1,2-Dichloroethene	<b>0.51</b>	0.50	1	03/29/21 20:13	
trans-1,2-Dichloroethene	ND U	0.50	1	03/29/21 20:13	
1,2-Dichloropropane	ND U	0.50	1	03/29/21 20:13	
1,3-Dichloropropane	ND U	0.50	1	03/29/21 20:13	
2,2-Dichloropropane	ND U	0.50	1	03/29/21 20:13	*
1,1-Dichloropropene	ND U	0.50	1	03/29/21 20:13	
cis-1,3-Dichloropropene	ND U	0.50	1	03/29/21 20:13	
trans-1,3-Dichloropropene	ND U	0.50	1	03/29/21 20:13	
Ethylbenzene	ND U	0.50	1	03/29/21 20:13	
Hexachlorobutadiene	ND U	2.0	1	03/29/21 20:13	
2-Hexanone	ND U	20	1	03/29/21 20:13	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 08:26  
**Date Received:** 03/18/21 13:20

**Sample Name:** MW-5-03182021  
**Lab Code:** K2102814-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/29/21 20:13	
4-Isopropyltoluene	ND U	2.0	1	03/29/21 20:13	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/29/21 20:13	
Methylene Chloride	ND U	2.0	1	03/29/21 20:13	
Naphthalene	ND U	2.0	1	03/29/21 20:13	
n-Propylbenzene	ND U	2.0	1	03/29/21 20:13	
Styrene	ND U	0.50	1	03/29/21 20:13	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/29/21 20:13	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/29/21 20:13	
Tetrachloroethene (PCE)	ND U	0.50	1	03/29/21 20:13	
Toluene	ND U	0.50	1	03/29/21 20:13	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/29/21 20:13	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/29/21 20:13	
1,1,2-Trichloroethane	ND U	0.50	1	03/29/21 20:13	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/29/21 20:13	
Trichloroethene (TCE)	1.2	0.50	1	03/29/21 20:13	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/29/21 20:13	*
1,2,3-Trichloropropane	ND U	0.50	1	03/29/21 20:13	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/29/21 20:13	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/29/21 20:13	
Vinyl Chloride	ND U	0.50	1	03/29/21 20:13	
o-Xylene	ND U	0.50	1	03/29/21 20:13	
m,p-Xylenes	ND U	0.50	1	03/29/21 20:13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	84	68 - 117	03/29/21 20:13	
Dibromofluoromethane	89	73 - 122	03/29/21 20:13	
Toluene-d8	95	65 - 144	03/29/21 20:13	



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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 12:00  
**Date Received:** 03/18/21 13:20

**Sample Name:** DUP-1-03182021  
**Lab Code:** K2102814-006

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/29/21 20:40	
Benzene	ND U	0.50	1	03/29/21 20:40	
Bromobenzene	ND U	2.0	1	03/29/21 20:40	
Bromochloromethane	ND U	0.50	1	03/29/21 20:40	
Bromodichloromethane	ND U	0.50	1	03/29/21 20:40	
Bromoform	ND U	0.50	1	03/29/21 20:40	
Bromomethane	ND U	0.50	1	03/29/21 20:40	*
2-Butanone (MEK)	ND U	20	1	03/29/21 20:40	
n-Butylbenzene	ND U	4.0	1	03/29/21 20:40	
sec-Butylbenzene	ND U	2.0	1	03/29/21 20:40	
tert-Butylbenzene	ND U	2.0	1	03/29/21 20:40	
Carbon Disulfide	ND U	0.50	1	03/29/21 20:40	
Carbon Tetrachloride	ND U	0.50	1	03/29/21 20:40	
Chlorobenzene	ND U	0.50	1	03/29/21 20:40	
Chloroethane	ND U	0.50	1	03/29/21 20:40	
Chloroform	ND U	0.50	1	03/29/21 20:40	
Chloromethane	ND U	0.50	1	03/29/21 20:40	
2-Chlorotoluene	ND U	2.0	1	03/29/21 20:40	
4-Chlorotoluene	ND U	2.0	1	03/29/21 20:40	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/29/21 20:40	
Dibromochloromethane	ND U	0.50	1	03/29/21 20:40	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/29/21 20:40	
Dibromomethane	ND U	0.50	1	03/29/21 20:40	
1,2-Dichlorobenzene	ND U	0.50	1	03/29/21 20:40	
1,3-Dichlorobenzene	ND U	0.50	1	03/29/21 20:40	
1,4-Dichlorobenzene	ND U	0.50	1	03/29/21 20:40	
Dichlorodifluoromethane	ND U	0.50	1	03/29/21 20:40	
1,1-Dichloroethane	ND U	0.50	1	03/29/21 20:40	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/29/21 20:40	
1,1-Dichloroethene	ND U	0.50	1	03/29/21 20:40	*
cis-1,2-Dichloroethene	<b>0.54</b>	0.50	1	03/29/21 20:40	
trans-1,2-Dichloroethene	ND U	0.50	1	03/29/21 20:40	
1,2-Dichloropropane	ND U	0.50	1	03/29/21 20:40	
1,3-Dichloropropane	ND U	0.50	1	03/29/21 20:40	
2,2-Dichloropropane	ND U	0.50	1	03/29/21 20:40	*
1,1-Dichloropropene	ND U	0.50	1	03/29/21 20:40	
cis-1,3-Dichloropropene	ND U	0.50	1	03/29/21 20:40	
trans-1,3-Dichloropropene	ND U	0.50	1	03/29/21 20:40	
Ethylbenzene	ND U	0.50	1	03/29/21 20:40	
Hexachlorobutadiene	ND U	2.0	1	03/29/21 20:40	
2-Hexanone	ND U	20	1	03/29/21 20:40	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 12:00  
**Date Received:** 03/18/21 13:20

**Sample Name:** DUP-1-03182021  
**Lab Code:** K2102814-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/29/21 20:40	
4-Isopropyltoluene	ND U	2.0	1	03/29/21 20:40	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/29/21 20:40	
Methylene Chloride	ND U	2.0	1	03/29/21 20:40	
Naphthalene	ND U	2.0	1	03/29/21 20:40	
n-Propylbenzene	ND U	2.0	1	03/29/21 20:40	
Styrene	ND U	0.50	1	03/29/21 20:40	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/29/21 20:40	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/29/21 20:40	
Tetrachloroethene (PCE)	ND U	0.50	1	03/29/21 20:40	
Toluene	ND U	0.50	1	03/29/21 20:40	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/29/21 20:40	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/29/21 20:40	
1,1,2-Trichloroethane	ND U	0.50	1	03/29/21 20:40	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/29/21 20:40	
Trichloroethene (TCE)	<b>1.3</b>	0.50	1	03/29/21 20:40	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/29/21 20:40	*
1,2,3-Trichloropropane	ND U	0.50	1	03/29/21 20:40	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/29/21 20:40	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/29/21 20:40	
Vinyl Chloride	ND U	0.50	1	03/29/21 20:40	
o-Xylene	ND U	0.50	1	03/29/21 20:40	
m,p-Xylenes	ND U	0.50	1	03/29/21 20:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	03/29/21 20:40	
Dibromofluoromethane	91	73 - 122	03/29/21 20:40	
Toluene-d8	97	65 - 144	03/29/21 20:40	

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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 07:30  
**Date Received:** 03/18/21 13:20

**Sample Name:** TB-01-03182021  
**Lab Code:** K2102814-007

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/29/21 21:06	
Benzene	ND U	0.50	1	03/29/21 21:06	
Bromobenzene	ND U	2.0	1	03/29/21 21:06	
Bromochloromethane	ND U	0.50	1	03/29/21 21:06	
Bromodichloromethane	ND U	0.50	1	03/29/21 21:06	
Bromoform	ND U	0.50	1	03/29/21 21:06	
Bromomethane	ND U	0.50	1	03/29/21 21:06	*
2-Butanone (MEK)	ND U	20	1	03/29/21 21:06	
n-Butylbenzene	ND U	4.0	1	03/29/21 21:06	
sec-Butylbenzene	ND U	2.0	1	03/29/21 21:06	
tert-Butylbenzene	ND U	2.0	1	03/29/21 21:06	
Carbon Disulfide	ND U	0.50	1	03/29/21 21:06	
Carbon Tetrachloride	ND U	0.50	1	03/29/21 21:06	
Chlorobenzene	ND U	0.50	1	03/29/21 21:06	
Chloroethane	ND U	0.50	1	03/29/21 21:06	
Chloroform	ND U	0.50	1	03/29/21 21:06	
Chloromethane	ND U	0.50	1	03/29/21 21:06	
2-Chlorotoluene	ND U	2.0	1	03/29/21 21:06	
4-Chlorotoluene	ND U	2.0	1	03/29/21 21:06	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/29/21 21:06	
Dibromochloromethane	ND U	0.50	1	03/29/21 21:06	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/29/21 21:06	
Dibromomethane	ND U	0.50	1	03/29/21 21:06	
1,2-Dichlorobenzene	ND U	0.50	1	03/29/21 21:06	
1,3-Dichlorobenzene	ND U	0.50	1	03/29/21 21:06	
1,4-Dichlorobenzene	ND U	0.50	1	03/29/21 21:06	
Dichlorodifluoromethane	ND U	0.50	1	03/29/21 21:06	
1,1-Dichloroethane	ND U	0.50	1	03/29/21 21:06	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/29/21 21:06	
1,1-Dichloroethene	ND U	0.50	1	03/29/21 21:06	*
cis-1,2-Dichloroethene	ND U	0.50	1	03/29/21 21:06	
trans-1,2-Dichloroethene	ND U	0.50	1	03/29/21 21:06	
1,2-Dichloropropane	ND U	0.50	1	03/29/21 21:06	
1,3-Dichloropropane	ND U	0.50	1	03/29/21 21:06	
2,2-Dichloropropane	ND U	0.50	1	03/29/21 21:06	*
1,1-Dichloropropene	ND U	0.50	1	03/29/21 21:06	
cis-1,3-Dichloropropene	ND U	0.50	1	03/29/21 21:06	
trans-1,3-Dichloropropene	ND U	0.50	1	03/29/21 21:06	
Ethylbenzene	ND U	0.50	1	03/29/21 21:06	
Hexachlorobutadiene	ND U	2.0	1	03/29/21 21:06	
2-Hexanone	ND U	20	1	03/29/21 21:06	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** 03/18/21 07:30  
**Date Received:** 03/18/21 13:20

**Sample Name:** TB-01-03182021  
**Lab Code:** K2102814-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/29/21 21:06	
4-Isopropyltoluene	ND U	2.0	1	03/29/21 21:06	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/29/21 21:06	
Methylene Chloride	ND U	2.0	1	03/29/21 21:06	
Naphthalene	ND U	2.0	1	03/29/21 21:06	
n-Propylbenzene	ND U	2.0	1	03/29/21 21:06	
Styrene	ND U	0.50	1	03/29/21 21:06	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/29/21 21:06	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/29/21 21:06	
Tetrachloroethene (PCE)	ND U	0.50	1	03/29/21 21:06	
Toluene	ND U	0.50	1	03/29/21 21:06	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/29/21 21:06	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/29/21 21:06	
1,1,2-Trichloroethane	ND U	0.50	1	03/29/21 21:06	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/29/21 21:06	
Trichloroethene (TCE)	ND U	0.50	1	03/29/21 21:06	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/29/21 21:06	*
1,2,3-Trichloropropane	ND U	0.50	1	03/29/21 21:06	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/29/21 21:06	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/29/21 21:06	
Vinyl Chloride	ND U	0.50	1	03/29/21 21:06	
o-Xylene	ND U	0.50	1	03/29/21 21:06	
m,p-Xylenes	ND U	0.50	1	03/29/21 21:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	68 - 117	03/29/21 21:06	
Dibromofluoromethane	90	73 - 122	03/29/21 21:06	
Toluene-d8	95	65 - 144	03/29/21 21:06	



# QC Summary Forms

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Kelso Laboratory**  
1317 South 13th Avenue, Kelso, WA 98626  
Phone (360) 577-7222 Fax (360) 425-9096  
[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C

**Extraction Method:** None

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		68-117	73-122	65-144
MW-1-03182021	K2102814-001	86	92	96
MW-2-03182021	K2102814-002	87	87	94
MW-3-03182021	K2102814-003	86	89	98
MW-4-03182021	K2102814-004	86	87	96
MW-5-03182021	K2102814-005	84	89	95
DUP-1-03182021	K2102814-006	88	91	97
TB-01-03182021	K2102814-007	88	90	95
Method Blank	KQ2104930-05	85	90	95
Method Blank	KQ2105083-05	87	88	94
Lab Control Sample	KQ2104930-03	90	96	97
Duplicate Lab Control Sample	KQ2104930-04	92	95	98
Lab Control Sample	KQ2105083-03	86	94	97
Duplicate Lab Control Sample	KQ2105083-04	92	90	97

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** KQ2104930-05

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/29/21 15:48	
Benzene	ND U	0.50	1	03/29/21 15:48	
Bromobenzene	ND U	2.0	1	03/29/21 15:48	
Bromochloromethane	ND U	0.50	1	03/29/21 15:48	
Bromodichloromethane	ND U	0.50	1	03/29/21 15:48	
Bromoform	ND U	0.50	1	03/29/21 15:48	
Bromomethane	ND U	0.50	1	03/29/21 15:48	
2-Butanone (MEK)	ND U	20	1	03/29/21 15:48	
n-Butylbenzene	ND U	4.0	1	03/29/21 15:48	
sec-Butylbenzene	ND U	2.0	1	03/29/21 15:48	
tert-Butylbenzene	ND U	2.0	1	03/29/21 15:48	
Carbon Disulfide	ND U	0.50	1	03/29/21 15:48	
Carbon Tetrachloride	ND U	0.50	1	03/29/21 15:48	
Chlorobenzene	ND U	0.50	1	03/29/21 15:48	
Chloroethane	ND U	0.50	1	03/29/21 15:48	
Chloroform	ND U	0.50	1	03/29/21 15:48	
Chloromethane	ND U	0.50	1	03/29/21 15:48	
2-Chlorotoluene	ND U	2.0	1	03/29/21 15:48	
4-Chlorotoluene	ND U	2.0	1	03/29/21 15:48	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/29/21 15:48	
Dibromochloromethane	ND U	0.50	1	03/29/21 15:48	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/29/21 15:48	
Dibromomethane	ND U	0.50	1	03/29/21 15:48	
1,2-Dichlorobenzene	ND U	0.50	1	03/29/21 15:48	
1,3-Dichlorobenzene	ND U	0.50	1	03/29/21 15:48	
1,4-Dichlorobenzene	ND U	0.50	1	03/29/21 15:48	
Dichlorodifluoromethane	ND U	0.50	1	03/29/21 15:48	
1,1-Dichloroethane	ND U	0.50	1	03/29/21 15:48	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/29/21 15:48	
1,1-Dichloroethene	ND U	0.50	1	03/29/21 15:48	
cis-1,2-Dichloroethene	ND U	0.50	1	03/29/21 15:48	
trans-1,2-Dichloroethene	ND U	0.50	1	03/29/21 15:48	
1,2-Dichloropropane	ND U	0.50	1	03/29/21 15:48	
1,3-Dichloropropane	ND U	0.50	1	03/29/21 15:48	
2,2-Dichloropropane	ND U	0.50	1	03/29/21 15:48	
1,1-Dichloropropene	ND U	0.50	1	03/29/21 15:48	
cis-1,3-Dichloropropene	ND U	0.50	1	03/29/21 15:48	
trans-1,3-Dichloropropene	ND U	0.50	1	03/29/21 15:48	
Ethylbenzene	ND U	0.50	1	03/29/21 15:48	
Hexachlorobutadiene	ND U	2.0	1	03/29/21 15:48	
2-Hexanone	ND U	20	1	03/29/21 15:48	



**ALS Group USA, Corp.**  
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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** KQ2104930-05

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/29/21 15:48	
4-Isopropyltoluene	ND U	2.0	1	03/29/21 15:48	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/29/21 15:48	
Methylene Chloride	ND U	2.0	1	03/29/21 15:48	
Naphthalene	ND U	2.0	1	03/29/21 15:48	
n-Propylbenzene	ND U	2.0	1	03/29/21 15:48	
Styrene	ND U	0.50	1	03/29/21 15:48	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/29/21 15:48	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/29/21 15:48	
Tetrachloroethene (PCE)	ND U	0.50	1	03/29/21 15:48	
Toluene	ND U	0.50	1	03/29/21 15:48	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/29/21 15:48	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/29/21 15:48	
1,1,2-Trichloroethane	ND U	0.50	1	03/29/21 15:48	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/29/21 15:48	
Trichloroethene (TCE)	ND U	0.50	1	03/29/21 15:48	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/29/21 15:48	
1,2,3-Trichloropropane	ND U	0.50	1	03/29/21 15:48	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/29/21 15:48	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/29/21 15:48	
Vinyl Chloride	ND U	0.50	1	03/29/21 15:48	
o-Xylene	ND U	0.50	1	03/29/21 15:48	
m,p-Xylenes	ND U	0.50	1	03/29/21 15:48	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	85	68 - 117	03/29/21 15:48	
Dibromofluoromethane	90	73 - 122	03/29/21 15:48	
Toluene-d8	95	65 - 144	03/29/21 15:48	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** KQ2105083-05

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	ND U	20	1	03/26/21 12:03	
Benzene	ND U	0.50	1	03/26/21 12:03	
Bromobenzene	ND U	2.0	1	03/26/21 12:03	
Bromochloromethane	ND U	0.50	1	03/26/21 12:03	
Bromodichloromethane	ND U	0.50	1	03/26/21 12:03	
Bromoform	ND U	0.50	1	03/26/21 12:03	
Bromomethane	ND U	0.50	1	03/26/21 12:03	
2-Butanone (MEK)	ND U	20	1	03/26/21 12:03	
n-Butylbenzene	ND U	4.0	1	03/26/21 12:03	
sec-Butylbenzene	ND U	2.0	1	03/26/21 12:03	
tert-Butylbenzene	ND U	2.0	1	03/26/21 12:03	
Carbon Disulfide	ND U	0.50	1	03/26/21 12:03	
Carbon Tetrachloride	ND U	0.50	1	03/26/21 12:03	
Chlorobenzene	ND U	0.50	1	03/26/21 12:03	
Chloroethane	ND U	0.50	1	03/26/21 12:03	
Chloroform	ND U	0.50	1	03/26/21 12:03	
Chloromethane	ND U	0.50	1	03/26/21 12:03	
2-Chlorotoluene	ND U	2.0	1	03/26/21 12:03	
4-Chlorotoluene	ND U	2.0	1	03/26/21 12:03	
1,2-Dibromo-3-chloropropane	ND U	2.0	1	03/26/21 12:03	
Dibromochloromethane	ND U	0.50	1	03/26/21 12:03	
1,2-Dibromoethane (EDB)	ND U	2.0	1	03/26/21 12:03	
Dibromomethane	ND U	0.50	1	03/26/21 12:03	
1,2-Dichlorobenzene	ND U	0.50	1	03/26/21 12:03	
1,3-Dichlorobenzene	ND U	0.50	1	03/26/21 12:03	
1,4-Dichlorobenzene	ND U	0.50	1	03/26/21 12:03	
Dichlorodifluoromethane	ND U	0.50	1	03/26/21 12:03	
1,1-Dichloroethane	ND U	0.50	1	03/26/21 12:03	
1,2-Dichloroethane (EDC)	ND U	0.50	1	03/26/21 12:03	
1,1-Dichloroethene	ND U	0.50	1	03/26/21 12:03	
cis-1,2-Dichloroethene	ND U	0.50	1	03/26/21 12:03	
trans-1,2-Dichloroethene	ND U	0.50	1	03/26/21 12:03	
1,2-Dichloropropane	ND U	0.50	1	03/26/21 12:03	
1,3-Dichloropropane	ND U	0.50	1	03/26/21 12:03	
2,2-Dichloropropane	ND U	0.50	1	03/26/21 12:03	
1,1-Dichloropropene	ND U	0.50	1	03/26/21 12:03	
cis-1,3-Dichloropropene	ND U	0.50	1	03/26/21 12:03	
trans-1,3-Dichloropropene	ND U	0.50	1	03/26/21 12:03	
Ethylbenzene	ND U	0.50	1	03/26/21 12:03	
Hexachlorobutadiene	ND U	2.0	1	03/26/21 12:03	
2-Hexanone	ND U	20	1	03/26/21 12:03	

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water  
**Sample Name:** Method Blank  
**Lab Code:** KQ2105083-05

**Service Request:** K2102814  
**Date Collected:** NA  
**Date Received:** NA  
**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Isopropylbenzene	ND U	2.0	1	03/26/21 12:03	
4-Isopropyltoluene	ND U	2.0	1	03/26/21 12:03	
4-Methyl-2-pentanone (MIBK)	ND U	20	1	03/26/21 12:03	
Methylene Chloride	ND U	2.0	1	03/26/21 12:03	
Naphthalene	ND U	2.0	1	03/26/21 12:03	
n-Propylbenzene	ND U	2.0	1	03/26/21 12:03	
Styrene	ND U	0.50	1	03/26/21 12:03	
1,1,1,2-Tetrachloroethane	ND U	0.50	1	03/26/21 12:03	
1,1,2,2-Tetrachloroethane	ND U	0.50	1	03/26/21 12:03	
Tetrachloroethene (PCE)	ND U	0.50	1	03/26/21 12:03	
Toluene	ND U	0.50	1	03/26/21 12:03	
1,2,3-Trichlorobenzene	ND U	2.0	1	03/26/21 12:03	
1,2,4-Trichlorobenzene	ND U	2.0	1	03/26/21 12:03	
1,1,2-Trichloroethane	ND U	0.50	1	03/26/21 12:03	
1,1,1-Trichloroethane (TCA)	ND U	0.50	1	03/26/21 12:03	
Trichloroethene (TCE)	ND U	0.50	1	03/26/21 12:03	
Trichlorofluoromethane (CFC 11)	ND U	0.50	1	03/26/21 12:03	
1,2,3-Trichloropropane	ND U	0.50	1	03/26/21 12:03	
1,2,4-Trimethylbenzene	ND U	2.0	1	03/26/21 12:03	
1,3,5-Trimethylbenzene	ND U	2.0	1	03/26/21 12:03	
Vinyl Chloride	ND U	0.50	1	03/26/21 12:03	
o-Xylene	ND U	0.50	1	03/26/21 12:03	
m,p-Xylenes	ND U	0.50	1	03/26/21 12:03	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	87	68 - 117	03/26/21 12:03	
Dibromofluoromethane	88	73 - 122	03/26/21 12:03	
Toluene-d8	94	65 - 144	03/26/21 12:03	

ALS Group USA, Corp.  
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QA/QC Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Analyzed:** 03/29/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 717997

Analyte Name	Lab Control Sample KQ2104930-03			Duplicate Lab Control Sample KQ2104930-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	10.4	10.0	104	10.7	10.0	107	66-124	3	30
1,1,1-Trichloroethane (TCA)	9.37	10.0	94	9.18	10.0	92	59-136	2	30
1,1,2,2-Tetrachloroethane	10.7	10.0	107	10.3	10.0	103	70-127	4	30
1,1,2-Trichloroethane	10.2	10.0	102	10.1	10.0	101	74-118	<1	30
1,1-Dichloroethane	9.96	10.0	100	10.1	10.0	101	68-132	<1	30
1,1-Dichloroethene	7.93	10.0	79	8.16	10.0	82	66-129	3	30
1,1-Dichloropropene	9.49	10.0	95	9.70	10.0	97	59-134	2	30
1,2,3-Trichlorobenzene	10.4	10.0	104	10.7	10.0	107	68-120	3	30
1,2,3-Trichloropropane	11.0	10.0	110	10.5	10.0	105	69-123	4	30
1,2,4-Trichlorobenzene	10.5	10.0	105	10.1	10.0	101	58-126	3	30
1,2,4-Trimethylbenzene	10.4	10.0	104	10.4	10.0	104	63-122	<1	30
1,2-Dibromo-3-chloropropane	9.59	10.0	96	10.8	10.0	108	55-132	12	30
1,2-Dibromoethane (EDB)	9.52	10.0	95	10.1	10.0	101	74-118	6	30
1,2-Dichlorobenzene	10.7	10.0	107	10.8	10.0	108	72-115	<1	30
1,2-Dichloroethane (EDC)	10.0	10.0	100	10.1	10.0	101	56-142	1	30
1,2-Dichloropropane	10.4	10.0	104	10.6	10.0	106	67-126	2	30
1,3,5-Trimethylbenzene	10.2	10.0	102	10.0	10.0	100	62-126	1	30
1,3-Dichlorobenzene	10.3	10.0	103	10.3	10.0	103	70-116	<1	30
1,3-Dichloropropane	10.1	10.0	101	10.4	10.0	104	75-116	2	30
1,4-Dichlorobenzene	10.4	10.0	104	10.3	10.0	103	73-115	1	30
2,2-Dichloropropane	7.43	10.0	74	7.67	10.0	77	37-145	3	30
2-Butanone (MEK)	54.7	50.0	109	57.4	50.0	115	71-149	5	30
2-Chlorotoluene	10.4	10.0	104	10.5	10.0	105	55-131	<1	30
2-Hexanone	48.9	50.0	98	50.9	50.0	102	59-131	4	30
4-Chlorotoluene	10.5	10.0	105	10.5	10.0	105	66-121	<1	30
4-Isopropyltoluene	10.5	10.0	105	10.3	10.0	103	61-128	3	30
4-Methyl-2-pentanone (MIBK)	53.5	50.0	107	56.3	50.0	113	64-134	5	30
Acetone	55.7	50.0	111	55.2	50.0	110	68-135	<1	30
Benzene	10.2	10.0	102	10.3	10.0	103	69-124	2	30
Bromobenzene	10.4	10.0	104	10.7	10.0	107	72-116	2	30
Bromochloromethane	10.9	10.0	109	10.5	10.0	105	75-131	4	30
Bromodichloromethane	10.9	10.0	109	11.0	10.0	110	63-129	1	30
Bromoform	11.2	10.0	112	11.3	10.0	113	52-144	<1	30
Bromomethane	7.86	10.0	79	7.84	10.0	78	35-113	<1	30
Carbon Disulfide	18.1	20.0	90	17.9	20.0	89	46-144	<1	30
Carbon Tetrachloride	9.75	10.0	98	9.86	10.0	99	55-140	1	30
Chlorobenzene	10.3	10.0	103	10.4	10.0	104	72-116	<1	30
Chloroethane	9.79	10.0	98	9.78	10.0	98	58-134	<1	30
Chloroform	10.1	10.0	101	10.3	10.0	103	70-129	2	30
Chloromethane	10.0	10.0	100	9.58	10.0	96	34-130	4	30
cis-1,2-Dichloroethene	10.2	10.0	102	10.2	10.0	102	71-118	<1	30

**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Analyzed:** 03/29/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 717997

Analyte Name	Lab Control Sample KQ2104930-03			Duplicate Lab Control Sample KQ2104930-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
cis-1,3-Dichloropropene	10.5	10.0	105	10.9	10.0	109	62-132	4	30
Dibromochloromethane	11.1	10.0	111	11.6	10.0	116	67-126	5	30
Dibromomethane	9.96	10.0	100	10.2	10.0	102	69-128	2	30
Dichlorodifluoromethane	8.86	10.0	89	8.97	10.0	90	32-124	1	30
Ethylbenzene	9.50	10.0	95	9.63	10.0	96	67-121	1	30
Hexachlorobutadiene	10.6	10.0	106	9.93	10.0	99	57-119	6	30
Isopropylbenzene	9.66	10.0	97	9.77	10.0	98	67-129	1	30
m,p-Xylenes	19.1	20.0	96	19.6	20.0	98	69-121	2	30
Methylene Chloride	10.3	10.0	103	10.6	10.0	106	71-122	2	30
Naphthalene	10.3	10.0	103	10.2	10.0	102	64-126	1	30
n-Butylbenzene	9.67	10.0	97	9.57	10.0	96	55-130	1	30
n-Propylbenzene	10.3	10.0	103	10.0	10.0	100	61-124	2	30
o-Xylene	9.82	10.0	98	10.3	10.0	103	71-119	4	30
sec-Butylbenzene	9.90	10.0	99	9.57	10.0	96	59-128	3	30
Styrene	10.6	10.0	106	10.6	10.0	106	74-121	<1	30
tert-Butylbenzene	9.85	10.0	99	9.72	10.0	97	61-127	1	30
Tetrachloroethene (PCE)	9.58	10.0	96	9.57	10.0	96	62-126	<1	30
Toluene	10.5	10.0	105	10.6	10.0	106	69-124	1	30
trans-1,2-Dichloroethene	9.96	10.0	100	10.6	10.0	106	67-125	6	30
trans-1,3-Dichloropropene	9.01	10.0	90	9.21	10.0	92	59-125	2	30
Trichloroethene (TCE)	10.0	10.0	100	10.3	10.0	103	67-128	3	30
Trichlorofluoromethane (CFC 11)	7.56	10.0	76	7.62	10.0	76	52-141	<1	30
Vinyl Chloride	9.40	10.0	94	9.50	10.0	95	55-123	1	30

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Analyzed:** 03/26/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 717604

Analyte Name	Lab Control Sample KQ2105083-03			Duplicate Lab Control Sample KQ2105083-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	10.4	10.0	104	10.6	10.0	106	66-124	2	30
1,1,1-Trichloroethane (TCA)	10.0	10.0	100	9.91	10.0	99	59-136	1	30
1,1,2,2-Tetrachloroethane	11.0	10.0	110	10.8	10.0	108	70-127	2	30
1,1,2-Trichloroethane	9.94	10.0	99	10.3	10.0	103	74-118	3	30
1,1-Dichloroethane	10.3	10.0	103	10.5	10.0	105	68-132	2	30
1,1-Dichloroethene	8.96	10.0	90	8.92	10.0	89	66-129	<1	30
1,1-Dichloropropene	10.6	10.0	106	10.5	10.0	105	59-134	<1	30
1,2,3-Trichlorobenzene	10.5	10.0	105	10.8	10.0	108	68-120	3	30
1,2,3-Trichloropropane	11.0	10.0	110	10.8	10.0	108	69-123	1	30
1,2,4-Trichlorobenzene	10.5	10.0	105	10.7	10.0	107	58-126	1	30
1,2,4-Trimethylbenzene	11.0	10.0	110	11.2	10.0	112	63-122	2	30
1,2-Dibromo-3-chloropropane	11.7	10.0	117	10.7	10.0	107	55-132	9	30
1,2-Dibromoethane (EDB)	9.79	10.0	98	9.99	10.0	100	74-118	2	30
1,2-Dichlorobenzene	10.9	10.0	109	10.7	10.0	107	72-115	2	30
1,2-Dichloroethane (EDC)	9.33	10.0	93	9.82	10.0	98	56-142	5	30
1,2-Dichloropropane	10.3	10.0	103	10.4	10.0	104	67-126	1	30
1,3,5-Trimethylbenzene	11.1	10.0	111	10.9	10.0	109	62-126	2	30
1,3-Dichlorobenzene	10.7	10.0	107	10.8	10.0	108	70-116	<1	30
1,3-Dichloropropane	10.0	10.0	100	10.2	10.0	102	75-116	2	30
1,4-Dichlorobenzene	10.7	10.0	107	10.4	10.0	104	73-115	3	30
2,2-Dichloropropane	8.20	10.0	82	8.27	10.0	83	37-145	<1	30
2-Butanone (MEK)	114	100	114	112	100	112	71-149	2	30
2-Chlorotoluene	10.9	10.0	109	10.7	10.0	107	55-131	2	30
2-Hexanone	103	100	103	103	100	103	59-131	<1	30
4-Chlorotoluene	11.0	10.0	110	10.8	10.0	108	66-121	2	30
4-Isopropyltoluene	11.0	10.0	110	11.1	10.0	111	61-128	<1	30
4-Methyl-2-pentanone (MIBK)	108	100	108	107	100	107	64-134	1	30
Acetone	111	100	111	112	100	112	68-135	1	30
Benzene	10.2	10.0	102	10.2	10.0	102	69-124	<1	30
Bromobenzene	10.9	10.0	109	10.7	10.0	107	72-116	1	30
Bromochloromethane	10.5	10.0	105	10.5	10.0	105	75-131	<1	30
Bromodichloromethane	10.7	10.0	107	10.7	10.0	107	63-129	<1	30
Bromoform	10.7	10.0	107	11.1	10.0	111	52-144	4	30
Bromomethane	8.31	10.0	83	8.02	10.0	80	35-113	4	30
Carbon Disulfide	10.1	10.0	101	10.2	10.0	102	46-144	<1	30
Carbon Tetrachloride	10.7	10.0	107	11.1	10.0	111	55-140	4	30
Chlorobenzene	9.98	10.0	100	10.3	10.0	103	72-116	3	30
Chloroethane	10.7	10.0	107	10.9	10.0	109	58-134	2	30
Chloroform	10.1	10.0	101	10.2	10.0	102	70-129	<1	30
Chloromethane	11.1	10.0	111	11.0	10.0	110	34-130	<1	30
cis-1,2-Dichloroethene	10.1	10.0	101	10.8	10.0	108	71-118	6	30

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** Georgia-Pacific Consumer Products (Camas) LLC  
**Project:** Environmental Waste and Landfill Analysis - 2021  
**Sample Matrix:** Water

**Service Request:** K2102814  
**Date Analyzed:** 03/26/21  
**Date Extracted:** NA

**Duplicate Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** None

**Units:** ug/L  
**Basis:** NA  
**Analysis Lot:** 717604

Analyte Name	Lab Control Sample KQ2105083-03			Duplicate Lab Control Sample KQ2105083-04			% Rec Limits	RPD	RPD Limit
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
cis-1,3-Dichloropropene	10.5	10.0	105	10.6	10.0	106	62-132	<1	30
Dibromochloromethane	11.7	10.0	117	12.0	10.0	120	67-126	2	30
Dibromomethane	10.2	10.0	102	10.2	10.0	102	69-128	<1	30
Dichlorodifluoromethane	12.4	10.0	124	11.9	10.0	119	32-124	4	30
Ethylbenzene	9.81	10.0	98	10.1	10.0	101	67-121	3	30
Hexachlorobutadiene	11.4	10.0	114	11.7	10.0	117	57-119	3	30
Isopropylbenzene	10.1	10.0	101	10.6	10.0	106	67-129	4	30
m,p-Xylenes	19.5	20.0	97	20.2	20.0	101	69-121	4	30
Methylene Chloride	9.98	10.0	100	10.5	10.0	105	71-122	5	30
Naphthalene	10.4	10.0	104	10.8	10.0	108	64-126	4	30
n-Butylbenzene	10.9	10.0	109	10.8	10.0	108	55-130	<1	30
n-Propylbenzene	11.4	10.0	114	11.3	10.0	113	61-124	1	30
o-Xylene	9.98	10.0	100	10.4	10.0	104	71-119	4	30
sec-Butylbenzene	11.1	10.0	111	10.8	10.0	108	59-128	2	30
Styrene	10.4	10.0	104	10.7	10.0	107	74-121	2	30
tert-Butylbenzene	11.0	10.0	110	10.8	10.0	108	61-127	1	30
Tetrachloroethene (PCE)	10.2	10.0	102	10.4	10.0	104	62-126	2	30
Toluene	10.5	10.0	105	10.7	10.0	107	69-124	1	30
trans-1,2-Dichloroethene	10.1	10.0	101	10.3	10.0	103	67-125	2	30
trans-1,3-Dichloropropene	8.95	10.0	90	9.11	10.0	91	59-125	2	30
Trichloroethene (TCE)	10.4	10.0	104	10.3	10.0	103	67-128	1	30
Trichlorofluoromethane (CFC 11)	10.1	10.0	101	10.0	10.0	100	52-141	<1	30
Vinyl Chloride	11.2	10.0	112	10.8	10.0	108	55-123	3	30