

TECHNICAL MEMORANDUM

DATE: October 14, 2022
TO: Karen Deal, Lakeside Industries
FROM: Lisa Gilbert
SUBJECT: September 2022 Groundwater Sampling Results
PROJECT NUMBER: 555-1857-002 (11.03)
PROJECT NAME: Durgin Road Asphalt Plant

This report summarizes the September 2022 (Third Quarter 2022) groundwater quality and elevation monitoring results for the Durgin Road Plant.

INTRODUCTION

Site Location and Description

The Nisqually Site is located in Township 18 North, Range 1 East, Section 17 at 11125 Durgin Road SE, Lacey, Washington. The Site is bordered on the east and southeast by a Burlington Northern Railroad Line, on the north by Durgin Road SE, and to the west and south by the Holroyd Land Company gravel mine (see Figure 1). The property is approximately 25 acres and includes an office building, a shop, asphalt plant equipment, storage tanks, material storage, stormwater detention ponds, and a stormwater infiltration pond. Site operations were initiated in 2007. The facility operates in accordance with Thurston County issued Special Use Permit (SUP) SUPT-APPL 990457.

Objectives

Monitoring is being conducted in accordance with the *Addendum to Final Groundwater Monitoring Plan (HWA Geosciences, Inc., July 1999) Lakeside Industries Durgin Road Asphalt Plant* (Groundwater Monitoring Plan; Parametrix 2021). The plan was updated as directed by the findings of Thurston County's most recent Five-Year Review (Thurston County 2021a,b) and has been approved by the County's hydrogeologist. The objective of the monitoring is to detect potential migration of contaminants from the operations of the Durgin Road Plant into the local groundwater system in accordance with the Thurston County Gravel Mining Ordinance (#10368) and the Washington State Department of Ecology's Draft Sand and Gravel Permit requirements.

Hydrogeology

Geology in the Site vicinity consists of Quaternary Vashon Recessional (Qvr) deposits (Drost et al. 1998; CDM 2002; Golder 2011; Thurston County 2004). These deposits comprise the sand and gravel materials that are being mined at the adjacent Holroyd gravel site. Monitoring wells at the Site encountered sandy gravel with cobbles to depths of 38 ft below ground surface. Silt was observed in the boring for well MW-13 between depths of about 10 and 30 ft below ground surface.

The Site is located just south of the Nisqually delta lowland area, in the northern portion of an upland plateau separating Medicine and McAllister Creeks. An east-west oriented reach of Medicine Creek, a tributary to

McAllister Creek, is located approximately one mile north of the Site. The Nisqually River which flows in a north-northeasterly direction into Puget Sound is located approximately 1-1/2 mile north-northeast of the Site. Lost Lake, situated within a glacially formed depression, is located approximately 0.5 mi south of the Site.

Water level elevations at the Site and the adjacent Holroyd gravel site have identified the prevailing flow direction to be toward the northwest. The groundwater gradient within the uppermost aquifer at the Site, based on the measured water levels, is very flat consistent with the highly transmissive shallow Qvr aquifer. Water level differences across the Site typically vary less than 0.2 ft. The wells were resurveyed in 2015, and since that time, most of the March and September potentiometric surface maps have indicated a northwesterly flow direction. The apparent change in flow direction compared to pre-2015 monitoring events is likely related to errors and/or inconsistencies between the previous surveyed reference elevations.

Summary of Historical Monitoring Data

Monitoring has been conducted since 2007 in accordance with the Final Groundwater Monitoring Plan (HWA 1999). In 2010, a Periodic Review Report was prepared (Parametrix 2010) summarizing the groundwater quality and flow data at the Durgin Road Plant collected during the August 2007 pre-operations event and the subsequent eight post-operational quarterly monitoring events through November 2009. The August 2007 event was conducted to evaluate background conditions prior to the start of plant operations. The contaminants of concern identified in the initial monitoring plan consisted of total petroleum hydrocarbons (TPH) and in the diesel to heavy oil range, pH, Total Dissolved Solids (TDS), iron and manganese.

The data collected during this period did not detect TPH in any of the wells and time-series plots showing the concentrations of the other parameters did not indicate any consistent upward or downward trends. Based on these results and in accordance with the monitoring plan, the monitoring frequency was reduced to semi-annual beginning in 2010, and sampling for total iron and manganese was discontinued.

MONITORING LOCATIONS

The current monitoring program consists of groundwater sampling at four monitoring wells MW-5, MW 6, MW-7X and MW-13R (see Figure 1). Monitoring well MW-5 represents background groundwater quality conditions. Well MW-6 monitors groundwater quality downgradient of the stormwater wet pond and the infiltration pond. Monitoring well MW-13R monitors groundwater quality downgradient of the shop and fuel tanks. Monitoring well MW-7X, located along the northern edge of the Site in a cross-gradient direction, is monitored for potential impacts from the shop and fuel tanks.

Water level monitoring is performed at these four wells, and four other wells located on the adjacent Holroyd gravel site (MW-1A, MW-2A, MW-3A, and MW-4A). Groundwater elevations are calculated and the groundwater gradient evaluated.

Beginning with the September 2021 monitoring event, wells MW-5, MW-6, and MW-13R are being tested quarterly for additional parameters (carcinogenic polycyclic aromatic hydrocarbons [cPAHs]) to assess potential groundwater impacts from the asphalt plant cleanout material stockpile on the southeastern portion of the Site (Figure 1).

SAMPLING PROCEDURES

Sampling was conducted on September 7, 2022 by Parametrix personnel, in accordance with the Groundwater Monitoring Plan. Approximate time synchronous static water levels were measured at the Site in wells MW-1A, MW-2A, MW-3R, MW-4A, MW-5, MW-6, MW-7X, and MW-13R.

Following measurement of static water levels, samples were collected from monitoring wells MW-5, MW-6, MW-7X and MW-13R. The wells were purged and sampled with a peristaltic pump using low flow methods with purge rates between 300 to 350 mL/min. Water quality parameters of pH, conductivity, temperature, oxidation-reduction potential, and dissolved oxygen were measured in the field using a flow through cell.

Water quality samples were submitted to Analytical Resources, Inc. (ARI), a laboratory accredited in the State of Washington, for analysis of TPH (using NWTPH-Dx) and TDS (EPA Method 160.1). In addition, samples from wells MW-5, MW-6, and MW-13R were submitted for analysis of cPAHs using EPA Method 8270-SIM.

SAMPLE RESULTS

The September 2022 data and historical data collected during the pre-operations event and subsequent monitoring events are presented in Table 1. The laboratory report is presented in Attachment A, and the field data sheets are presented in Attachment B. TPH was not detected in any of the samples.

No cPAHs were detected in the monitoring wells in the vicinity of the asphalt plant cleanout stockpile, and the cPAH reporting limits were below the Model Toxic Control Act (MTCA, WAC 173-340) groundwater cleanup level of 0.1 ug/L for benzo(a)pyrene¹. The cPAH data are presented in Table 2.

Time-series plots showing the concentrations of pH and TDS over time are presented in Figures 2 and 3, and do not indicate any consistent upward or downward trends except for potential seasonality. The September 2022 pH data were slightly higher than the June 2022 measurements but were still atypically low compared to historical measurements. However, TDS concentrations remained within historical conditions (Figure 3), and therefore it is likely that the atypically low pH readings may be related to issues with the pH probe or calibration of the field meter. pH will continue to be evaluated during subsequent events to confirm the measurements and/or assess potential causes.

GROUNDWATER ELEVATIONS AND FLOW DIRECTION

Depth to groundwater was measured in the Durgin Road monitoring wells and the monitoring wells at the adjacent Holroyd gravel site, and groundwater elevations were calculated from surveyed wellhead elevations. These data are presented in in Tables 3 and 4.

Groundwater elevations measured since 2007 are plotted in Figure 4. Groundwater elevations have fluctuated seasonally in the wells, with changes of more than 4 feet over the history of monitoring. The last 3 years of monitoring water levels have been relatively consistent seasonally with elevations ranging from approximately 11.5 to 15 feet above sea level (NGVD29).

The September 2022 water level contours are presented in Figure 5. The gradient below the site is relatively flat consistent with the highly transmissive shallow Qvr aquifer. Water level elevations at the Site and the adjacent Holroyd Site have identified the prevailing flow direction to be toward the northwest near the Durgin Road Plant.

¹ The MTCA Method A cleanup level for cPAHs is established by comparing the total cPAH results to benzo(a)pyrene using toxicity equivalency factors

CONCLUSIONS

Groundwater monitoring data do not show any characteristics that can be attributed to the Durgin Road Plant. TPH has not been detected in any of the wells.

No cPAHs were detected in monitoring wells in the vicinity of the asphalt plant cleanout stockpile.

The pH measurements were atypically low across the site for the second consecutive event; however, TDS remained within historical concentrations. The pH measurements will be reassessed during subsequent monitoring events.

Groundwater elevations were consistent with historical data indicating flow toward the northwest.

REFERENCES

- CDM. 2002. McAllister Wellfield Numerical Model Interim Report. Prepared for the City of Olympia Public Works Department.
- Drost, B.W., G.L Turney, N.P. Dion, and M.A. Jones. 1998. Hydrology and Quality of Ground Water in Northern Thurston County, Washington. USGS Water Resources Investigation Report 92-4109 (revised).
- Golder Associates, Inc. 2011. City of Lacey Wellhead Protection Report for the Water System Plan Update. Prepared for Carollo Engineering, Seattle, Washington.
- HWA Geosciences, Inc. 1999. Final Groundwater Monitoring Plan. July 16.
- Parametrix, Inc. 2010. Periodic Review Report, Durgin Road. Technical Memorandum prepared for Lakeside Industries. February 11.
- Parametrix, Inc. 2021. Addendum to Final Groundwater Monitoring Plan (HWA Geosciences, Inc., July 1999) Lakeside Industries Durgin Road Asphalt Plant. Prepared for Lakeside Industries. September.
- Thurston County. 2004. WRIA 13 Assessment, Chapter 4 – Geology & Groundwater.
- Thurston County (Thurston County Community Planning & Economic Development Department). 2021a. Office of the Hearing Examiner Report and Decision. Project No. 2019102295 – Durgin Road Asphalt Plant. July 1.
- Thurston County. 2021b. Hydrogeologic Review of the Lakeside Industries Submissions for the 5-Year Periodic review of the Durgin Road Plant Special Use Permit SUPT/APPL 990457; Project 2019102295. Memorandum from Kevin Hansen, County Hydrogeologist to Scott McCormick, Senior Planner. January 15.

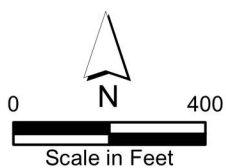
Figures



U:\PSO\Projects\Clients\1857-Lakeside\Industries\555-1857-002\99Sves\GIS\mapdocs\Durgin_rd041521_Fig1v2.mxd



Parametrix



- Legend**
- MW-7X
 - Monitoring Well
 - Property Boundary

Figure 1.
**Current Groundwater
Monitoring Locations,
Lakeside Durgin
Road Plant**

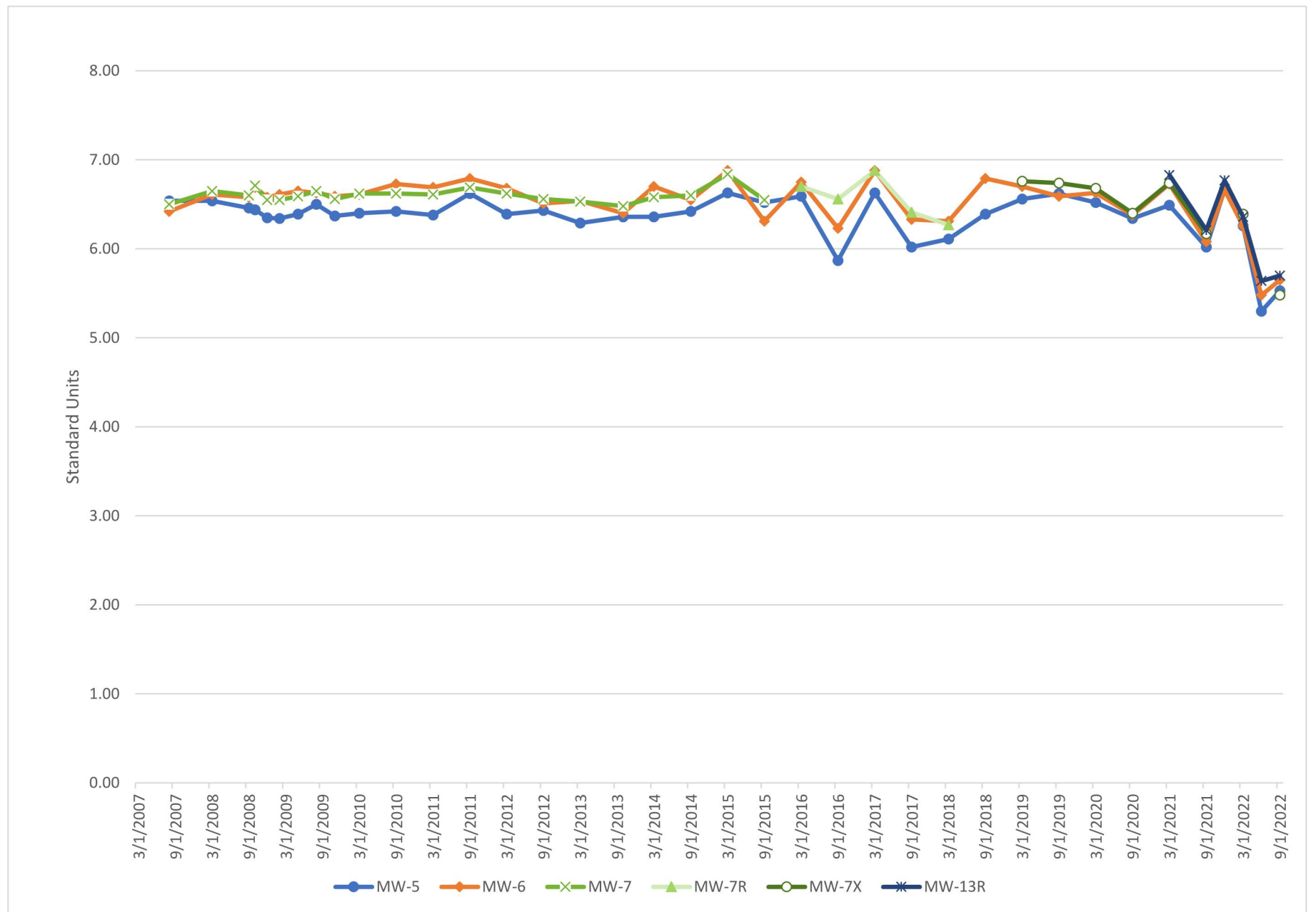


Figure 2. Lakeside Durgin Road Plant pH

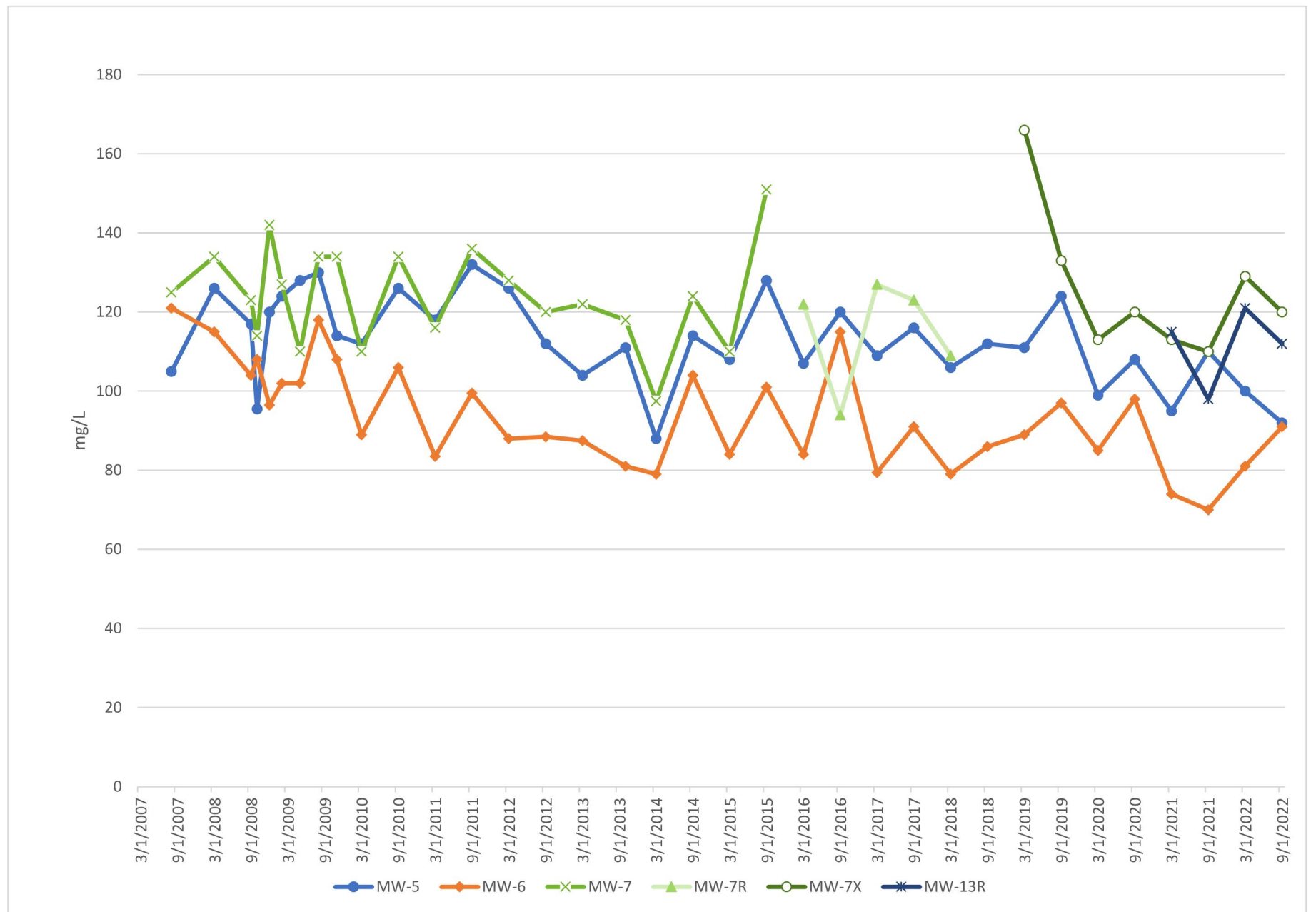


Figure 3. Lakeside Durgin Road Plant Total Dissolved Solids

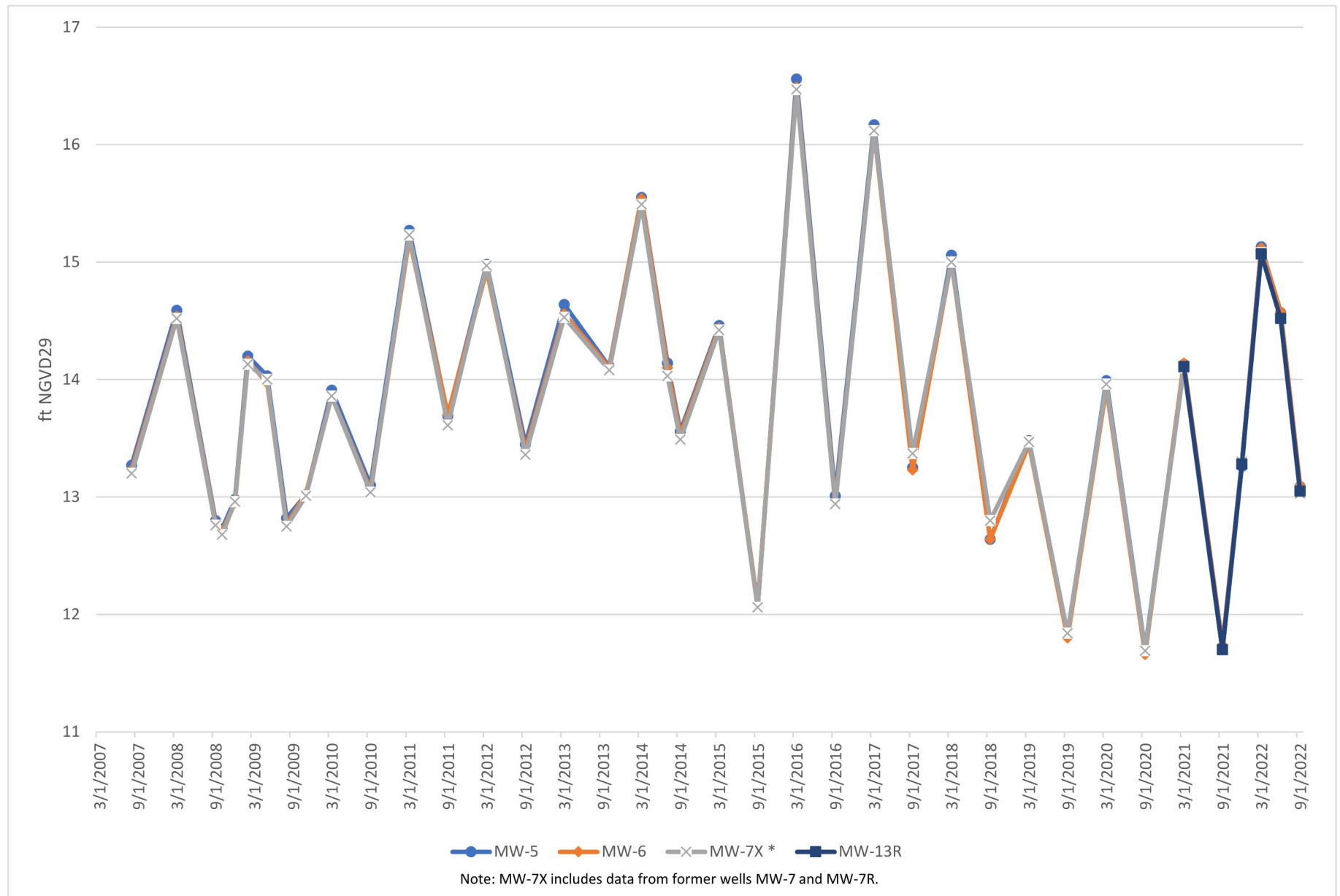


Figure 4. Groundwater Elevations Measured in Lakeside Durgin Road Plant Monitoring Wells



Parametrix

Legend

- MW-4a (12.90) ● Monitoring Well with Groundwater Elevation Measured September 7, 2022
- Property Boundary
- Groundwater Elevation Contour (ft NGVD29)

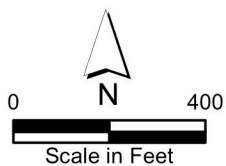


Figure 5.
Groundwater Potentiometric Surface Map September 2022, Lakeside Durgin Road Plant

Tables

Table 1. Groundwater Quality Summary, Durgin Road Asphalt Plant

Date Sampled	pH				TDS mg/L				TPH-diesel mg/L				TPH-oil mg/L				Iron, dissolved mg/L			Iron, total mg/L			Manganese, dissolved mg/L			Manganese, total mg/L		
	MW-5	MW-6	MW-7*	MW-13R	MW-5	MW-6	MW-7*	MW-13R	MW-5	MW-6	MW-7*	MW-13R	MW-5	MW-6	MW-7*	MW-13R	MW-5	MW-6	MW-7	MW-5	MW-6	MW-7	MW-5	MW-6	MW-7	MW-5	MW-6	MW-7
08/31/07	6.54	6.42	6.50	--	105	121	125	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	--	--	--	1.02	2.04	<0.05	--	--	--	0.068	0.122	0.002
03/18/08	6.54	6.61	6.65	--	126	115	134	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.51	0.81	<0.05	0.001	0.001	<0.001	0.014	0.052	<0.001
09/19/08	6.46	6.58	6.60	--	117	104	123	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.12	1.84	0.3	0.002	0.003	<0.001	0.004	0.103	0.005
10/23/08	6.44	6.69	6.71	--	95.5	108	114	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.26	1.75	0.34	<0.001	0.001	<0.001	0.007	0.084	0.006
12/09/08	6.35	6.58	6.55	--	120	96.5	142	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.92	0.6	0.49	<0.001	<0.001	<0.001	0.02	0.033	0.008
02/11/09	6.34	6.61	6.55	--	124	102	127	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.14	2.27	0.08	<0.001	<0.001	<0.001	0.005	0.12	0.001
05/18/09	6.39	6.65	6.59	--	128	102	110	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.62	1.87	<0.05	0.001	0.004	<0.001	0.02	0.092	<0.001
08/25/09	6.50	6.63	6.65	--	130	118	134	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.26	1.65	<0.05	<0.001	0.002	<0.001	0.009	0.092	0.001
11/18/09	6.37	6.59	6.56	--	114	108	134	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	<0.05	<0.05	<0.05	0.34	1.03	0.43	0.001	<0.001	0.003	0.012	0.041	0.008
03/18/10	6.40	6.61	6.62	--	112	89.0	110	--	<0.25	<0.25	<0.25	--	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--	--	--	--	--	--
09/02/10	6.42	6.73	6.62	--	126	106	134	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/11/11	6.38	6.69	6.61	--	118	84	116	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
09/16/11	6.62	6.79	6.69	--	132	99.5	136	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/22/12	6.39	6.68	6.62	--	126	88.0	128	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
09/28/12	6.43	6.51	6.56	--	112	88.5	120	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/12/13	6.29	6.54	6.53	--	104	87.5	122	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
10/09/13	6.36	6.40	6.48	--	111	81.0	118	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/20/14	6.36	6.70	6.58	--	88.0	79.0	97.5	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
09/30/14	6.42	6.55	6.60	--	114	104	124	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/19/15	6.63	6.88	6.84	--	108	84.0	110	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
09/09/15	6.52	6.31	6.55	--	128	101	151	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/17/16	6.59	6.75	6.70	--	107	84.0	122	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
09/28/16	5.87	6.23	6.56	--	120 J	115	94.0	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/22/17	6.63	6.88	6.88	--	109	79.4	127	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
09/29/17	6.02	6.33	6.41	--	116	91.0	123	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
03/29/18	6.11	6.31	6.27	--	106	79	109	--	<0.10	<0.10	<0.10	--	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
09/27/18	6.39	6.79	--	--	112	86	--	--	<0.10	<0.10	--	--	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/26/19	6.56	6.70	6.76		111	89	166		<0.10	<0.10	<0.10		<0.20	<0.20	<0.20		--	--	--	--	--	--	--	--	--	--	--	--
09/19/19	6.62	6.59	6.74		124	97	133		<0.10	<0.10	<0.10		<0.20	<0.20	<0.20		--	--	--	--	--	--	--	--	--	--	--	--
03/18/20	6.52	6.63	6.68		99	85	113		<0.10	<0.10	<0.10		<0.20	<0.20	<0.20		--	--	--	--	--	--	--	--	--	--	--	--
09/10/20	6.34	6.38	6.40		108	98	120		<0.10	<0.10	<0.10		<0.20	<0.20	<0.20		--	--	--	--	--	--	--	--	--	--	--	--
03/30/21	6.49	6.73	6.74	6.83	95	74	113	115	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--
09/21/21	6.02	6.08	6.17	6.21	110	70	110	98	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--
12/14/21	6.67	6.66	--	6.77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
03/15/22	6.26	6.26	6.39	6.36	100	81	129	121	<0.10 ¹	<0.10 ¹	<0.10 ¹	<0.10 ¹	<0.20 ¹	<0.20 ¹	<0.20 ¹	<0.20 ¹	--	--	--	--	--	--	--	--	--	--	--	--
06/17/22	5.30	5.48	--	5.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
09/07/22	5.53	5.65	5.48	5.70	92	91	120	112	<0.10	<0.10	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

-- = Not analyzed

TDS = Total Dissolved Solids

TPH = Total Petroleum Hydrocarbons

*Data For MW-7 includes MW-7R (03/16 through 03/18) and MW-7X (03/19 through present)

¹Silica gel cleanup procedure performed

Table 2. Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs), Durgin Road Asphalt Plant

Analyte	Units	TEF	9/7/2022 Sampling Event					
			MW-05		MW-06		MW-13R	
			Result ¹	TEF Result ²	Result ¹	TEF Result ²	Result ¹	TEF Result ²
Benzo(a)pyrene	µg/L	1	0.05 U	0.05	0.05 U	0.05	0.05 U	0.05
Benzo(a)anthracene	µg/L	0.1	0.05 U	0.005	0.05 U	0.005	0.05 U	0.005
Benzo(b)fluoranthene	µg/L	0.1	0.05 U	0.005	0.05 U	0.005	0.05 U	0.005
Benzo(k)fluoranthene	µg/L	0.1	0.05 U	0.005	0.05 U	0.005	0.05 U	0.005
Chrysene	µg/L	0	0.05 U	0.0005	0.05 U	0.0005	0.05 U	0.0005
Dibenzo(a,h)anthracene	µg/L	0.1	0.05 U	0.005	0.05 U	0.005	0.05 U	0.005
Indeno(1,2,3-cd)pyrene	µg/L	0.1	0.05 U	0.005	0.05 U	0.005	0.05 U	0.005
Total cPAHs TEF benzo(a)pyrene			0.0755		0.0755		0.0755	

Date Sampled	MTCA Method A	Historical TEF Result Summary		
		MW-05	MW-06	MW-13R
9/21/2021	0.1	0.0755	0.0755	0.0755
12/14/2021	0.1	0.0755	0.0755	0.0755
3/15/2022	0.1	0.0755	0.0755	0.0755
6/17/2022	0.1	0.0755	0.0755	0.0755
9/7/2002	0.1	0.0755	0.0755	0.0755

Notes:

¹ Non-detects reported at 1/2 the reporting limit

² TEF results are unitless

TEF = Toxicity Equivalency Factor for cPAHs using MTCA Table 708-2 and Chapter 173-340-708 WAC

U = Compound undetected at the specified detection limit

**Table 3. Groundwater Elevations in ft NGVD29,
Durgin Road Plant and Holroyd Gravel Pit**

Well	Reference Elevation (ft NGVD29)	9/7/2022	
		Depth to Water (ft)	Elevation (ft)
MW-1A	22.55	9.55	13.00
MW-2A	30.33	17.24	13.09
MW-3A	20.70	7.54	13.16
MW-4A	31.04	18.14	12.90
MW-5	41.45	28.36	13.09
MW-6	20.40	7.30	13.10
MW-7X	37.41	24.38	13.03
MW-13R	32.11	19.06	13.05

Table 4. Groundwater Elevations in ft NGVD29, Durgin Road Asphalt Plant

		MW-5	MW-6	MW-7	MW-7R	MW-7X	MW-13R
Reference Elevation		41.45	20.40	34.31	34.56	37.41	32.11
Date Measured	8/31/07	13.27	13.23	13.20			
	3/18/08	14.59	14.54	14.52			
	9/19/08	12.80	12.78	12.76			
	10/23/08	12.73	12.71	12.68			
	12/9/08	12.98	12.95	12.96			
	2/11/09	14.20	14.16	14.13			
	5/18/09	14.03	13.97	14.00			
	8/25/09	12.82	12.77	12.75			
	11/18/09	13.02	13.03	13.01			
	3/18/10	13.91	13.86	13.86			
	9/2/10	13.10	13.06	13.04			
	3/11/11	15.27	15.20	15.23			
	9/16/11	13.69	13.70	13.61			
	3/22/12	14.98	14.93	14.97			
	9/28/12	13.45	13.40	13.36			
	3/12/13	14.64	14.56	14.53			
	10/9/13	14.11	14.10	14.08			
	3/20/14	15.55	15.54	15.49			
	7/31/14	14.14	14.10	14.03			
	9/30/14	13.56	13.53	13.49			
	3/19/15	14.46	14.44	14.42			
	9/9/2015	12.06	12.08	12.06			
	3/17/2016	16.56	16.49		16.47		
	9/28/2016	13.01	12.95		12.94		
	3/22/2017	16.17	16.12		16.12		
	9/26/2017	13.25	13.23		13.37		
	3/29/2018	15.06	15.01		15.00		
	9/27/2018	12.64	12.64		12.80		
	3/27/2019	13.48	13.45			13.47	
	9/19/2019	11.82	11.80			11.84	
	3/18/2020	13.99	13.93			13.96	
	9/10/2020	11.70	11.66			11.69	
	3/30/2021	14.13	14.14			14.10	14.11
	9/21/2021	11.70	11.74			11.70	11.70
	12/14/2021	13.26	13.30			13.30	13.28
	3/15/2022	15.13	15.12			15.08	15.07
	6/17/2022	14.57	14.58			14.52	14.52
	9/7/2022	13.09	13.10			13.03	13.05

Attachment A

Laboratory Report





Analytical Resources, LLC
Analytical Chemists and Consultants

19 September 2022

Lisa Gilbert
Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle, WA 98104

RE: Durgin Road

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
22I0122

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

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.

Shelly Fishel, Project Manager



ARI Assigned Number: 2270122	Turn-around Requested: Standard (2 weeks)
ARI Client Company: Parametrix	Phone: 206.394.3700
Client Contact: Lisa Gilbert	206-394-3667
Client Project Name: Lakeside Industries / Durgin Rd.	
Client Project #: 555-1857-002	Samplers: Aaraw Thom

Analysis Requested	Notes/Comments
--------------------	----------------



TDS							
TPH-Dx							
PAH							

TDS is in two Cont

Relinquished by: (Signature) 	Received by: (Signature) 	Relinquished by: (Signature)	Received by: (Signature)
Printed Name: AARON THON	Printed Name: Phillip Bates	Printed Name:	Printed Name:
Company: PMX	Company: ARI	Company:	Company:
Date & Time: 9/7/22 1606	Date & Time: 9/7/22 1606	Date & Time:	Date & Time:

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Page 2 of 48 2210122 ARISample_WithFuelPDFs FINAL 19 Sep 2022 1602



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-5	22I0122-01	Water	07-Sep-2022 12:25	07-Sep-2022 16:13
MW-6	22I0122-02	Water	07-Sep-2022 14:55	07-Sep-2022 16:13
MW-7x	22I0122-03	Water	07-Sep-2022 11:09	07-Sep-2022 16:13
MW-13R	22I0122-04	Water	07-Sep-2022 13:26	07-Sep-2022 16:13



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Case Narrative

Client: Parametrix, Inc.
Project: Durgin Road
Work Order: 2210122

Sample receipt

Samples as listed on the preceding page were received 07-Sep-2022 16:13 under ARI work order 2210122. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Polynuclear Aromatic Hydrocarbons (PAH) - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits except Dibenzo(a,h)anthracene-d14 was out of control high in the samples and QC as flagged.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits except Dibenzo(a,h)anthracene which was out of control high in the blank spike duplicate. Deviation has been flagged.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The reference material (SRM) percent recoveries were within control limits.

The duplicate (DUP) relative percent difference (RPD) were within advisory control limits.

Diesel/Heavy Oil Range Organics - WA-Ecology Method NW-TPHDx



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



WORK ORDER

22I0122

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: Parametrix, Inc.

Project Manager: Shelly Fishel

Project: Durgin Road

Project Number: [none]

Analysis	Due	TAT	Expires	Comments
22I0122-01 MW-5 [Water] Sampled 07-Sep-2022 12:25 (GMT-08:00) Pacific Time (US & Canada)				
A = HDPE NM, 1000 mL	B = Glass NM, Amber, 500 mL	C = Glass NM, Amber, 500 mL	D = Glass NM, Amber, 500 mL	
E = Glass NM, Amber, 500 mL				
8270E-SIM PAH (0.1ug/L or 5ug/kg)	22-Sep-2022 15:00	10	14-Sep-2022 23:59	Version
Solids, Total Dissolved EPA 160.1	22-Sep-2022 15:00	10	14-Sep-2022 23:59	
TPH NW (Extractables) low level	22-Sep-2022 15:00	10	14-Sep-2022 23:59	
22I0122-02 MW-6 [Water] Sampled 07-Sep-2022 14:55 (GMT-08:00) Pacific Time (US & Canada)				
A = HDPE NM, 500 mL	B = HDPE NM, 500 mL	C = Glass NM, Amber, 500 mL	D = Glass NM, Amber, 500 mL	
E = Glass NM, Amber, 500 mL	F = Glass NM, Amber, 500 mL			
8270E-SIM PAH (0.1ug/L or 5ug/kg)	22-Sep-2022 15:00	10	14-Sep-2022 23:59	Version
Solids, Total Dissolved EPA 160.1	22-Sep-2022 15:00	10	14-Sep-2022 23:59	TDS is in two containers
TPH NW (Extractables) low level	22-Sep-2022 15:00	10	14-Sep-2022 23:59	
22I0122-03 MW-7x [Water] Sampled 07-Sep-2022 11:09 (GMT-08:00) Pacific Time (US & Canada)				
A = HDPE NM, 1000 mL	B = Glass NM, Amber, 500 mL	C = Glass NM, Amber, 500 mL		
Solids, Total Dissolved EPA 160.1	22-Sep-2022 15:00	10	14-Sep-2022 23:59	
TPH NW (Extractables) low level	22-Sep-2022 15:00	10	14-Sep-2022 23:59	
22I0122-04 MW-13R [Water] Sampled 07-Sep-2022 13:26 (GMT-08:00) Pacific Time (US & Canada)				
A = HDPE NM, 1000 mL	B = Glass NM, Amber, 500 mL	C = Glass NM, Amber, 500 mL	D = Glass NM, Amber, 500 mL	
E = Glass NM, Amber, 500 mL				
8270E-SIM PAH (0.1ug/L or 5ug/kg)	22-Sep-2022 15:00	10	14-Sep-2022 23:59	Version
Solids, Total Dissolved EPA 160.1	22-Sep-2022 15:00	10	14-Sep-2022 23:59	
TPH NW (Extractables) low level	22-Sep-2022 15:00	10	14-Sep-2022 23:59	

Reviewed By

Date

Page 2 of 2



Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Parametrix
COC No(s): _____ NA
Assigned ARI Job No: 22I0122

Project Name: Lakeside industries
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
Were custody papers included with the cooler? YES NO
Were custody papers properly filled out (ink, signed, etc.) YES NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 16:09 7.9
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: tnetmo3

Cooler Accepted by: Phillip Bates Date: 9/7/22 Time: 16:13

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
Was sufficient ice used (if appropriate)? NA YES NO
How were bottles sealed in plastic bags? Individually Grouped Not
Did all bottles arrive in good condition (unbroken)? YES NO
Were all bottle labels complete and legible? YES NO
Did the number of containers listed on COC match with the number of containers received? YES NO
Did all bottle labels and tags agree with custody papers? YES NO
Were all bottles used correct for the requested analyses? YES NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
Were all VOC vials free of air bubbles? NA YES NO
Was sufficient amount of sample sent in each bottle? YES NO
Date VOC Trip Blank was made at ARI: _____ NA
Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: PB Date: HIOT 9/9/22 Time: 11:01 Labels checked by: _____

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By:

Date:



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-5
22I0122-01 (Water)

Wet Chemistry

Method: EPA 160.1

Sampled: 09/07/2022 12:25

Instrument: BAL2

Analyzed: 12-Sep-2022 11:25

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BKI0211 Sample Size: 200 mL
Prepared: 12-Sep-2022 Final Volume: 200 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Dissolved Solids		1	5	92	mg/L	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-5
22I0122-01 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/07/2022 12:25

Instrument: NT8

Analyzed: 16-Sep-2022 14:05

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3520C (Liq Liq)
Preparation Batch: BKI0195 Sample Size: 500 mL
Prepared: 12-Sep-2022 Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Benzo(a)anthracene	56-55-3	1	0.05	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.06	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.09	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.09	0.10	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.06	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.08	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.09	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10				31-120 %	57.9	%	
Surrogate: Dibenzo[a,h]anthracene-d14				10-125 %	142	%	*
Surrogate: Fluoranthene-d10				46-121 %	74.6	%	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-5
22I0122-01 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/07/2022 12:25

Instrument: FID3

Analyzed: 15-Sep-2022 09:37

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3510C SepF
Preparation Batch: BKI0203 Sample Size: 500 mL
Prepared: 13-Sep-2022 Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	91.0	%	

Data File: \\target\share\chem2\fid3b,1\20220915,b\32211510.D

Date : 15-SEP-2022 09:37

Client ID:

Sample Info: 2210122-01

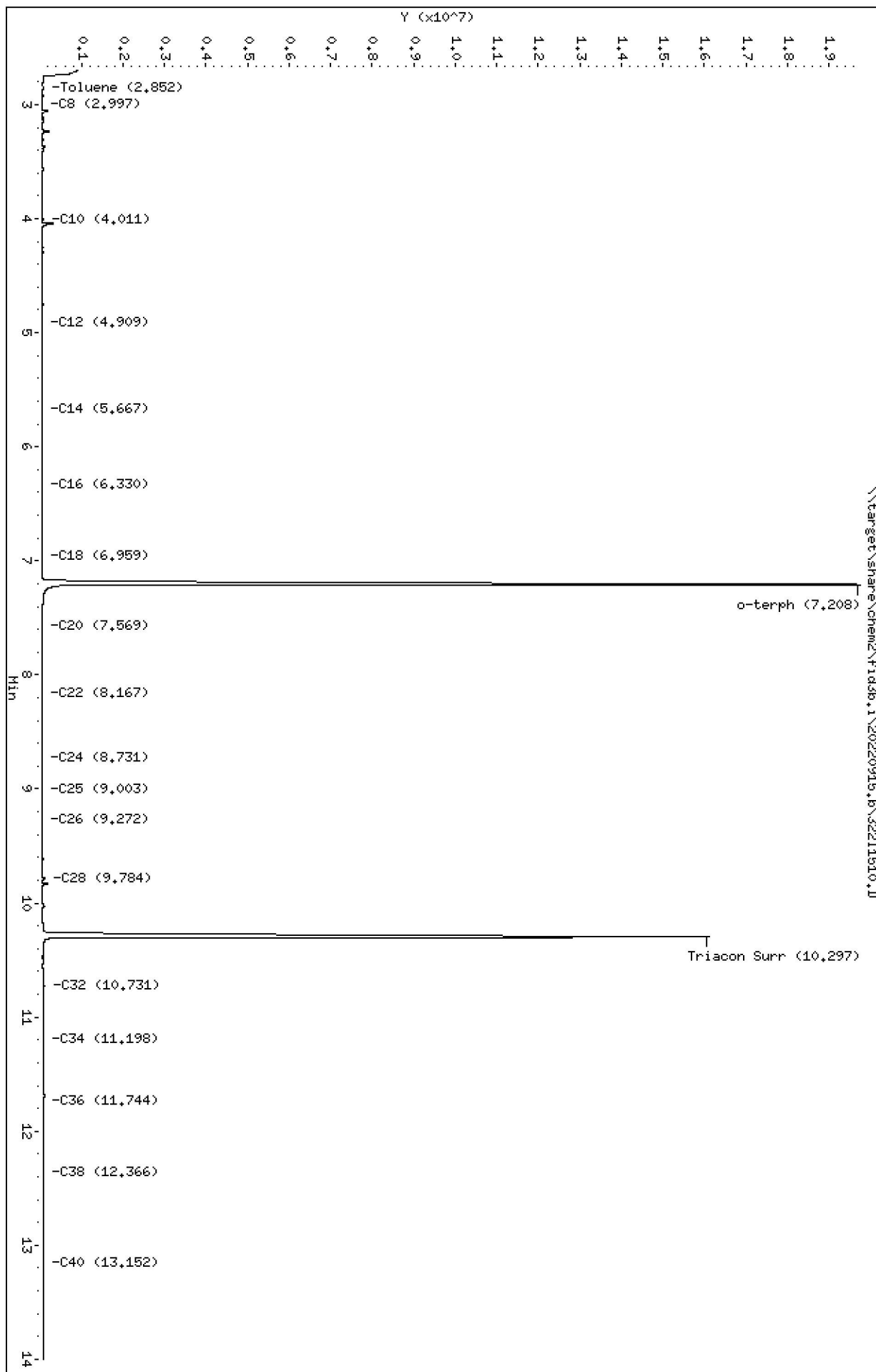
Column phase: RTX-1

Instrument: fid3b,1

Operator: JGR/HH

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20220915.b/322I1510.D

Method: 20220915.b\FID3TPH.m

Instrument: fid3b.i, JGR/AA

Report Date: 09/15/2022

Macro: FID3_05052022

Calibration Dates: Gas:xx-xx-xxxx Diesel:10-JAN-2022 M.Oil:15-DEC-2021

ARI ID: 22I0122-01

Client ID:

Injection: 15-SEP-2022 09:37

Dilution Factor: 1

RT Std: 322I1503.D

FID:3B RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg per L)
Toluene	2.852	0.006	37763	55202	WATPHG	(Tol-C12)	1456737	8.1
C8	2.997	-0.003	10875	11217	WATPHD	(C12-C24)	856615	5.0
C10	4.011	0.010	22223	33007	WATPHM	(C24-C38)	3370963	27.2
C12	4.909	0.001	2988	2466	AK102	(C10-C25)	1470478	7.2
C14	5.667	0.004	4181	3129	AK103	(C25-C36)	2659284	28.0
C16	6.330	-0.002	2982	2536	OR.DIES	(C10-C28)	2024799	9.9
C18	6.959	-0.003	7514	9969				
C20	7.569	-0.001	9750	8728				
C22	8.167	0.005	6395	9322				
C24	8.731	-0.001	8439	11177				
C25	9.003	-0.005	8340	16827				
C26	9.272	-0.005	9646	12091				
C28	9.784	-0.009	69153	62556	IT.DIES	(C10-C24)	1400583	6.9
C32	10.731	-0.004	52824	90898				
C34	11.198	-0.004	20057	16608	CREOSOT	(C12-C22)	673047	13.1
Filter Peak	13.986	0.004	17933	13018				
C36	11.744	0.016	21464	11736	BUNKERC	(C10-C38)	4771546	62.8
o-terph	7.208	0.001	19703078	24652248	JET-A	(C10-C18)	839080	4.9
Triacon Surr	10.297	-0.004	16051784	20976353				

Range Times: NW Diesel(4.958 - 8.782) NW Gas(2.797 - 4.958) NW M.Oil(8.782 - 12.407)
AK102(3.951 - 8.958) AK103(8.958 - 11.778) Jet A(3.951 - 7.012)

Surrogate	Area	Amount
o-Terphenyl	24652248	102.4
Triacontane	20976353	122.0

Analyte	RF	Curve Date
Gas	179445.5	xx-xx-xxxx
Diesel	172426.7	10-JAN-2022
Motor Oil	124145.6	15-DEC-2021
AK102	203784.0	10-JAN-2022
AK103	95006.4	17-NOV-2021
JetA	172029.3	03-OCT-2018
OR Diesel	204295.0	10-JAN-2022
IT Diesel	203365.7	10-JAN-2022
Bunker C	75926.1	03-OCT-2018
Creosote	51451.5	07-FEB-2019



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-6
22I0122-02 (Water)

Wet Chemistry

Method: EPA 160.1

Sampled: 09/07/2022 14:55

Instrument: BAL2

Analyzed: 12-Sep-2022 11:25

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BKI0211 Sample Size: 200 mL
Prepared: 12-Sep-2022 Final Volume: 200 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Dissolved Solids		1	5	91	mg/L	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-6
22I0122-02 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/07/2022 14:55

Instrument: NT8

Analyzed: 16-Sep-2022 14:32

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3520C (Liq Liq)
Preparation Batch: BKI0195 Sample Size: 500 mL
Prepared: 12-Sep-2022 Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Benzo(a)anthracene	56-55-3	1	0.05	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.06	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.09	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.09	0.10	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.06	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.08	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.09	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10				31-120 %	56.0	%	
Surrogate: Dibenzo[a,h]anthracene-d14				10-125 %	139	%	*
Surrogate: Fluoranthene-d10				46-121 %	71.2	%	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-6
22I0122-02 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/07/2022 14:55

Instrument: FID3

Analyzed: 15-Sep-2022 09:59

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3510C SepF
Preparation Batch: BKI0203 Sample Size: 500 mL
Prepared: 13-Sep-2022 Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	85.2	%	

Data File: \\target\share\chem2\fid3b,1\20220915,b\32211511.D

Date : 15-SEP-2022 09:59

Client ID:

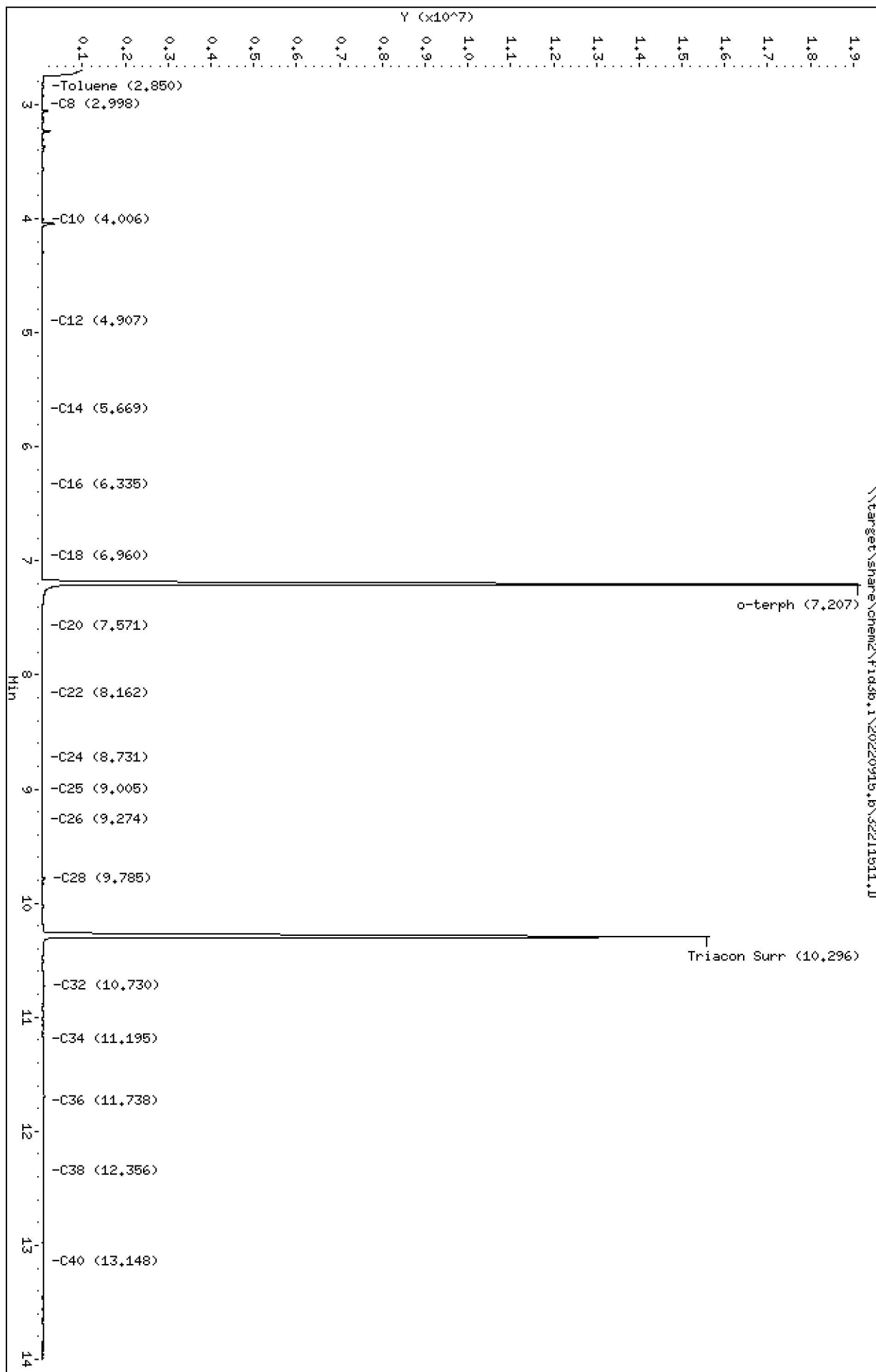
Sample Info: 2210122-02

Column phase: RTX-1

Instrument: fid3b,1

Operator: JGR/HH

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20220915.b/322I1511.D

Method: 20220915.b\FID3TPH.m

Instrument: fid3b.i, JGR/AA

Report Date: 09/15/2022

Macro: FID3_05052022

Calibration Dates: Gas:xx-xx-xxxx Diesel:10-JAN-2022 M.Oil:15-DEC-2021

ARI ID: 22I0122-02

Client ID:

Injection: 15-SEP-2022 09:59

Dilution Factor: 1

RT Std: 322I1503.D

FID:3B RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg per L)
Toluene	2.850	0.003	28674	50273	WATPHG	(Tol-C12)	1366769	7.6
C8	2.998	-0.002	9932	17878	WATPHD	(C12-C24)	576392	3.3
C10	4.006	0.006	17754	27176	WATPHM	(C24-C38)	2633849	21.2
C12	4.907	-0.001	1495	648	AK102	(C10-C25)	1117206	5.5
C14	5.669	0.006	3001	4997	AK103	(C25-C36)	2012128	21.2
C16	6.335	0.003	1586	2062	OR.DIES	(C10-C28)	1509948	7.4
C18	6.960	-0.001	7246	7950				
C20	7.571	0.001	7260	8483				
C22	8.162	-0.000	5326	10369				
C24	8.731	-0.000	6614	13398				
C25	9.005	-0.004	7010	14427				
C26	9.274	-0.004	8667	15557				
C28	9.785	-0.008	64494	73414	IT.DIES	(C10-C24)	1082498	5.3
C32	10.730	-0.004	49422	89854				
C34	11.195	-0.007	17748	29292	CREOSOT	(C12-C22)	456912	8.9
Filter Peak	13.988	0.006	16497	19048				
C36	11.738	0.010	18748	8401	BUNKERC	(C10-C38)	3716348	48.9
o-terph	7.207	-0.000	19112088	23072860	JET-A	(C10-C18)	698254	4.1
Triacon Surr	10.296	-0.004	15581234	20706141				

Range Times: NW Diesel(4.958 - 8.782) NW Gas(2.797 - 4.958) NW M.Oil(8.782 - 12.407)
AK102(3.951 - 8.958) AK103(8.958 - 11.778) Jet A(3.951 - 7.012)

Surrogate	Area	Amount
o-Terphenyl	23072860	95.9
Triacontane	20706141	120.5

Analyte	RF	Curve Date
Gas	179445.5	xx-xx-xxxx
Diesel	172426.7	10-JAN-2022
Motor Oil	124145.6	15-DEC-2021
AK102	203784.0	10-JAN-2022
AK103	95006.4	17-NOV-2021
JetA	172029.3	03-OCT-2018
OR Diesel	204295.0	10-JAN-2022
IT Diesel	203365.7	10-JAN-2022
Bunker C	75926.1	03-OCT-2018
Creosote	51451.5	07-FEB-2019



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-7x
22I0122-03 (Water)

Wet Chemistry

Method: EPA 160.1

Sampled: 09/07/2022 11:09

Instrument: BAL2

Analyzed: 12-Sep-2022 11:25

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BKI0211 Sample Size: 200 mL
Prepared: 12-Sep-2022 Final Volume: 200 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Dissolved Solids		1	5	120	mg/L	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-7x
22I0122-03 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/07/2022 11:09

Instrument: FID3

Analyzed: 15-Sep-2022 10:20

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3510C SepF
Preparation Batch: BK10203 Sample Size: 500 mL
Prepared: 13-Sep-2022 Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	83.8	%	

Data File: \\target\share\chem2\fid3b,1\20220915,b\32211512.D

Date : 15-SEP-2022 10:20

Client ID:

Sample Info: 2210122-03

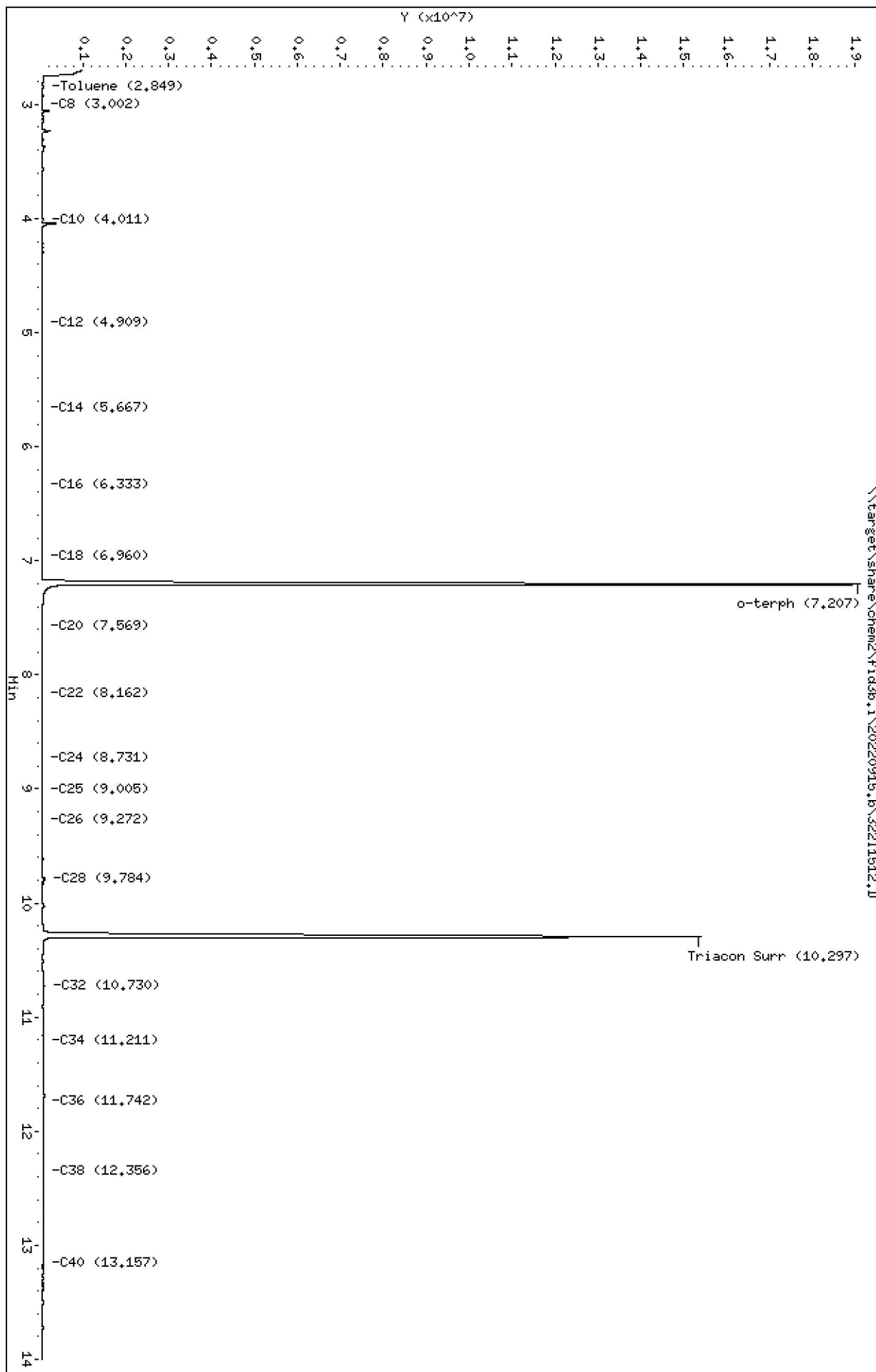
Column phase: RTX-1

Instrument: fid3b,1

Operator: JGR/HH

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20220915.b/322I1512.D

Method: 20220915.b\FID3TPH.m

Instrument: fid3b.i, JGR/AA

Report Date: 09/15/2022

Macro: FID3_05052022

Calibration Dates: Gas:xx-xx-xxxx Diesel:10-JAN-2022 M.Oil:15-DEC-2021

ARI ID: 22I0122-03

Client ID:

Injection: 15-SEP-2022 10:20

Dilution Factor: 1

RT Std: 322I1503.D

FID:3B RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg per L)
Toluene	2.849	0.002	28921	52379	WATPHG	(Tol-C12)	1478258	8.2
C8	3.002	0.002	10550	19388	WATPHD	(C12-C24)	629150	3.6
C10	4.011	0.010	31008	40440	WATPHM	(C24-C38)	2856257	23.0
C12	4.909	0.001	2361	1133	AK102	(C10-C25)	1237969	6.1
C14	5.667	0.003	3874	6124	AK103	(C25-C36)	2296280	24.2
C16	6.333	0.002	1760	2411	OR.DIES	(C10-C28)	1663083	8.1
C18	6.960	-0.002	5622	7296				
C20	7.569	-0.001	9151	10256				
C22	8.162	-0.001	5508	10170				
C24	8.731	-0.001	6183	15149				
C25	9.005	-0.003	6619	12901				
C26	9.272	-0.005	8038	6770				
C28	9.784	-0.008	67267	60550	IT.DIES	(C10-C24)	1201294	5.9
C32	10.730	-0.005	53940	86349				
C34	11.211	0.008	17491	4367	CREOSOT	(C12-C22)	513055	10.0
Filter Peak	13.982	-0.000	15250	7562				
C36	11.742	0.013	18542	7392	BUNKERC	(C10-C38)	4057552	53.4
o-terph	7.207	-0.001	19061741	22686395	JET-A	(C10-C18)	800805	4.7
Triacon Surr	10.297	-0.003	15355762	21089070				

Range Times: NW Diesel(4.958 - 8.782) NW Gas(2.797 - 4.958) NW M.Oil(8.782 - 12.407)
AK102(3.951 - 8.958) AK103(8.958 - 11.778) Jet A(3.951 - 7.012)

Surrogate	Area	Amount
o-Terphenyl	22686395	94.3
Triacontane	21089070	122.7

Analyte	RF	Curve Date
Gas	179445.5	xx-xx-xxxx
Diesel	172426.7	10-JAN-2022
Motor Oil	124145.6	15-DEC-2021
AK102	203784.0	10-JAN-2022
AK103	95006.4	17-NOV-2021
JetA	172029.3	03-OCT-2018
OR Diesel	204295.0	10-JAN-2022
IT Diesel	203365.7	10-JAN-2022
Bunker C	75926.1	03-OCT-2018
Creosote	51451.5	07-FEB-2019



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-13R
22I0122-04 (Water)

Wet Chemistry

Method: EPA 160.1

Sampled: 09/07/2022 13:26

Instrument: BAL2

Analyzed: 12-Sep-2022 11:25

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BKI0211 Sample Size: 200 mL
Prepared: 12-Sep-2022 Final Volume: 200 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Dissolved Solids		1	5	112	mg/L	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-13R
22I0122-04 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/07/2022 13:26

Instrument: NT8

Analyzed: 16-Sep-2022 14:59

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3520C (Liq Liq)
Preparation Batch: BKI0195 Sample Size: 500 mL
Prepared: 12-Sep-2022 Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Benzo(a)anthracene	56-55-3	1	0.05	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.06	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.09	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.09	0.10	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.06	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.08	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.09	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10				31-120 %	52.8	%	
Surrogate: Dibenzo[a,h]anthracene-d14				10-125 %	132	%	*
Surrogate: Fluoranthene-d10				46-121 %	70.3	%	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

MW-13R
22I0122-04 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/07/2022 13:26

Instrument: FID3

Analyzed: 15-Sep-2022 10:41

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3510C SepF
Preparation Batch: BKI0203 Sample Size: 500 mL
Prepared: 13-Sep-2022 Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	82.8	%	

Data File: \\target\share\chem2\fid3b,1\20220915,b\32211513.D

Date : 15-SEP-2022 10:41

Client ID:

Sample Info: 2210122-04

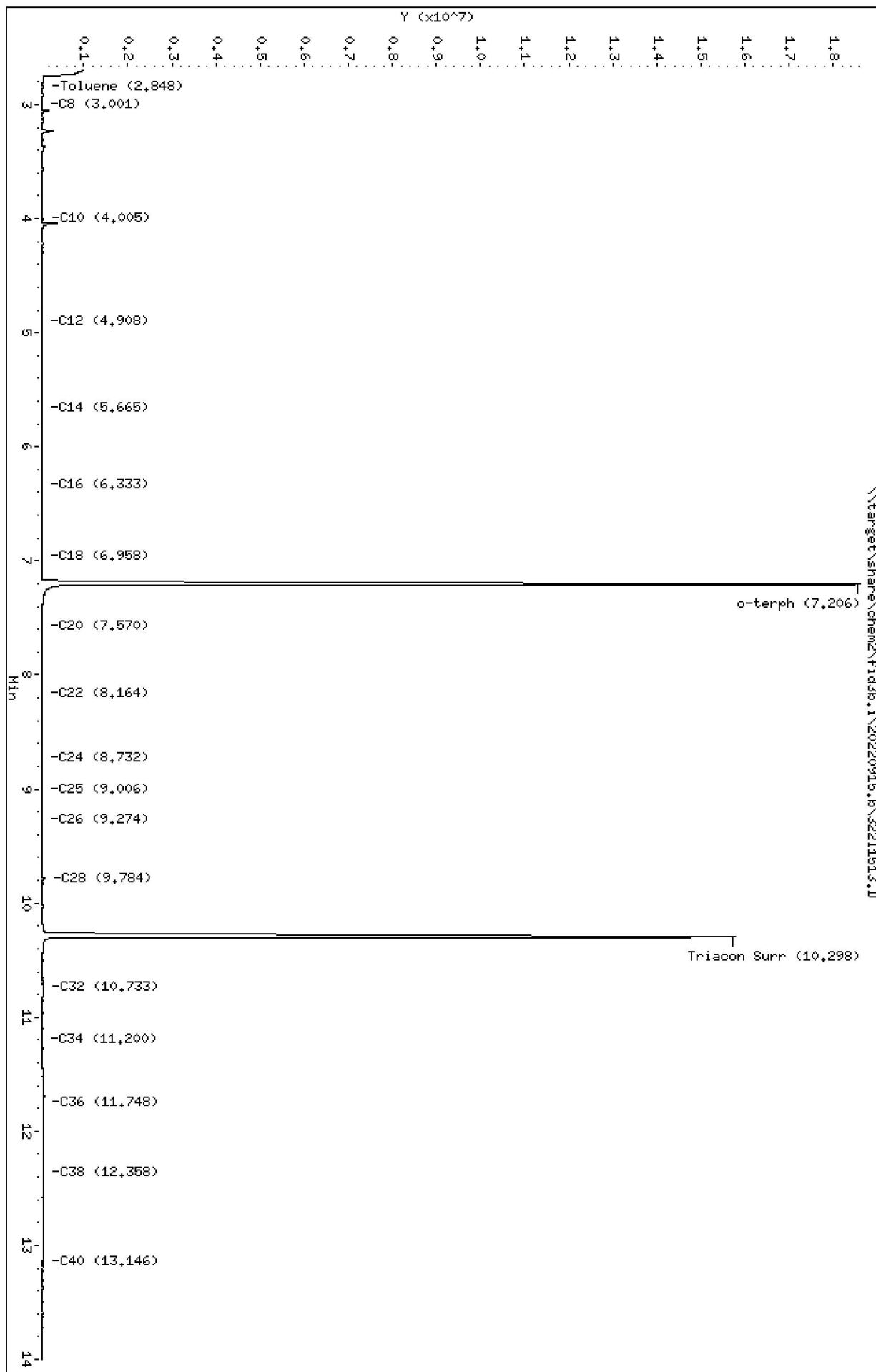
Column phase: RTX-1

Instrument: fid3b,1

Operator: JGR/HH

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20220915.b\322I1513.D

Method: 20220915.b\FID3TPH.m

Instrument: fid3b.i, JGR/AA

Report Date: 09/15/2022

Macro: FID3_05052022

Calibration Dates: Gas:xx-xx-xxxx Diesel:10-JAN-2022 M.Oil:15-DEC-2021

ARI ID: 22I0122-04

Client ID:

Injection: 15-SEP-2022 10:41

Dilution Factor: 1

RT Std: 322I1503.D

FID:3B RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg per L)
Toluene	2.848	0.002	28665	53987	WATPHG	(Tol-C12)	1548515	8.6
C8	3.001	0.001	9715	19428	WATPHD	(C12-C24)	551582	3.2
C10	4.005	0.004	22641	32923	WATPHM	(C24-C38)	2321855	18.7
C12	4.908	-0.001	2191	1687	AK102	(C10-C25)	1172321	5.8
C14	5.665	0.002	6711	16168	AK103	(C25-C36)	1754857	18.5
C16	6.333	0.002	1893	2363	OR.DIES	(C10-C28)	1485006	7.3
C18	6.958	-0.003	3930	5673				
C20	7.570	0.000	6492	6584				
C22	8.164	0.002	3905	6813				
C24	8.732	0.000	4686	4948				
C25	9.006	-0.002	5099	9972				
C26	9.274	-0.003	6076	6695				
C28	9.784	-0.008	64619	68881	IT.DIES	(C10-C24)	1148148	5.6
C32	10.733	-0.002	44479	79894				
C34	11.200	-0.002	15245	22032	CREOSOT	(C12-C22)	473795	9.2
Filter Peak	13.979	-0.002	14784	4425				
C36	11.748	0.020	17072	5953	BUNKERC	(C10-C38)	3470004	45.7
o-terph	7.206	-0.002	18562284	22425474	JET-A	(C10-C18)	850063	4.9
Triacon Surr	10.298	-0.003	15717089	21016584				

Range Times: NW Diesel(4.958 - 8.782) NW Gas(2.797 - 4.958) NW M.Oil(8.782 - 12.407)
AK102(3.951 - 8.958) AK103(8.958 - 11.778) Jet A(3.951 - 7.012)

Surrogate	Area	Amount
o-Terphenyl	22425474	93.2
Triacontane	21016584	122.3

Analyte	RF	Curve Date
Gas	179445.5	xx-xx-xxxx
Diesel	172426.7	10-JAN-2022
Motor Oil	124145.6	15-DEC-2021
AK102	203784.0	10-JAN-2022
AK103	95006.4	17-NOV-2021
JetA	172029.3	03-OCT-2018
OR Diesel	204295.0	10-JAN-2022
IT Diesel	203365.7	10-JAN-2022
Bunker C	75926.1	03-OCT-2018
Creosote	51451.5	07-FEB-2019



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BK10195 - EPA 3520C (Liq Liq)

Instrument: NT8

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BK10195-BLK1)					Prepared: 12-Sep-2022 Analyzed: 16-Sep-2022 12:43						
Benzo(a)anthracene	ND	0.05	0.10	ug/L							U
Chrysene	ND	0.06	0.10	ug/L							U
Benzo(b)fluoranthene	ND	0.09	0.10	ug/L							U
Benzo(k)fluoranthene	ND	0.09	0.10	ug/L							U
Benzo(a)pyrene	ND	0.06	0.10	ug/L							U
Indeno(1,2,3-cd)pyrene	ND	0.08	0.10	ug/L							U
Dibenzo(a,h)anthracene	ND	0.09	0.10	ug/L							U
Surrogate: 2-Methylnaphthalene-d10	1.68			ug/L	3.00		55.9	31-120			
Surrogate: Dibenzo[a,h]anthracene-d14	3.89			ug/L	3.00		130	10-125			*
Surrogate: Fluoranthene-d10	2.18			ug/L	3.00		72.7	46-121			



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BK10195 - EPA 3520C (Liq Liq)

Instrument: NT8

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BK10195-BS1)						Prepared: 12-Sep-2022 Analyzed: 16-Sep-2022 13:11					
Benzo(a)anthracene	2.14	0.05	0.10	ug/L	3.00		71.2	37-120			
Chrysene	2.36	0.06	0.10	ug/L	3.00		78.7	48-120			
Benzo(b)fluoranthene	3.37	0.09	0.10	ug/L	3.00		112	38-128			
Benzo(k)fluoranthene	3.49	0.09	0.10	ug/L	3.00		116	36-130			
Benzo(a)pyrene	2.53	0.06	0.10	ug/L	3.00		84.5	25-120			
Indeno(1,2,3-cd)pyrene	3.17	0.08	0.10	ug/L	3.00		106	32-120			
Dibenzo(a,h)anthracene	3.57	0.09	0.10	ug/L	3.00		119	21-120			
Surrogate: 2-Methylnaphthalene-d10	1.67			ug/L	3.00		55.5	31-120			
Surrogate: Dibenzo[a,h]anthracene-d14	3.96			ug/L	3.00		132	10-125			*
Surrogate: Fluoranthene-d10	2.11			ug/L	3.00		70.5	46-121			



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BK10195 - EPA 3520C (Liq Liq)

Instrument: NT8

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BK10195-BS1)						Prepared: 12-Sep-2022 Analyzed: 16-Sep-2022 13:38					
Benzo(a)anthracene	2.32	0.05	0.10	ug/L	3.00		77.2	37-120	8.10	30	
Chrysene	2.61	0.06	0.10	ug/L	3.00		87.0	48-120	10.00	30	
Benzo(b)fluoranthene	3.65	0.09	0.10	ug/L	3.00		122	38-128	8.07	30	
Benzo(k)fluoranthene	3.67	0.09	0.10	ug/L	3.00		122	36-130	5.18	30	
Benzo(a)pyrene	2.61	0.06	0.10	ug/L	3.00		87.0	25-120	2.97	30	
Indeno(1,2,3-cd)pyrene	3.55	0.08	0.10	ug/L	3.00		118	32-120	11.30	30	
Dibenzo(a,h)anthracene	3.93	0.09	0.10	ug/L	3.00		131	21-120	9.56	30	*
Surrogate: 2-Methylnaphthalene-d10	1.51			ug/L	3.00		50.4	31-120			
Surrogate: Dibenzo[a,h]anthracene-d14	4.09			ug/L	3.00		136	10-125			*
Surrogate: Fluoranthene-d10	2.21			ug/L	3.00		73.6	46-121			



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC

Analysis by: Analytical Resources, LLC

Petroleum Hydrocarbons - Quality Control

Batch BKI0203 - EPA 3510C SepF

Instrument: FID3

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKI0203-BLK1)				Prepared: 13-Sep-2022 Analyzed: 15-Sep-2022 08:34						
Diesel Range Organics (C12-C24)	ND	0.100	mg/L							U
Motor Oil Range Organics (C24-C38)	ND	0.200	mg/L							U
Surrogate: o-Terphenyl	0.143		mg/L	0.225		63.7	50-150			

Data File: \\target\share\chem2\fid3b,1\20220915,b\32211507.D

Date : 15-SEP-2022 08:34

Client ID:

Sample Info: BK10203-BLK1

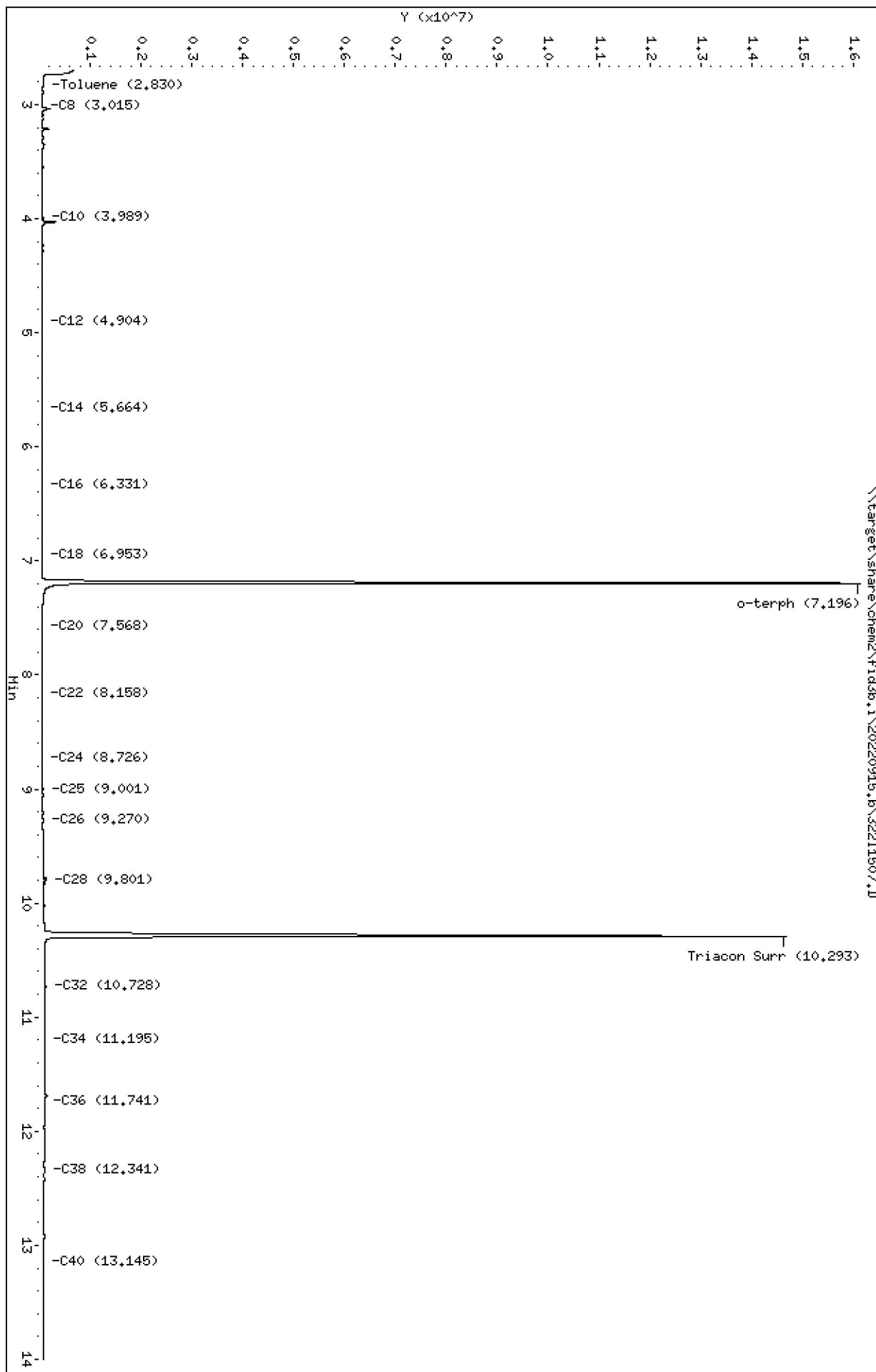
Column phase: RTX-1

Instrument: fid3b,1

Operator: JGR/HA

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20220915.b/322I1507.D

Method: 20220915.b\FID3TPH.m

Instrument: fid3b.i, JGR/AA

Report Date: 09/15/2022

Macro: FID3_05052022

Calibration Dates: Gas:xx-xx-xxxx Diesel:10-JAN-2022 M.Oil:15-DEC-2021

ARI ID: BKI0203-BLK1

Client ID:

Injection: 15-SEP-2022 08:34

Dilution Factor: 1

RT Std: 322I1503.D

FID:3B RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg per L)
Toluene	2.830	-0.016	19978	39067	WATPHG	(Tol-C12)	1203992	6.7
C8	3.015	0.016	8598	7908	WATPHD	(C12-C24)	751427	4.4
C10	3.989	-0.012	18192	26381	WATPHM	(C24-C38)	7584127	61.1
C12	4.904	-0.004	1175	284	AK102	(C10-C25)	1279531	6.3
C14	5.664	0.001	2510	2846	AK103	(C25-C36)	6100960	64.2 M
C16	6.331	-0.000	1534	1584	OR.DIES	(C10-C28)	2256161	11.0
C18	6.953	-0.009	5884	7561				
C20	7.568	-0.002	8781	14271				
C22	8.158	-0.004	10696	21641				
C24	8.726	-0.005	12876	17721				
C25	9.001	-0.007	16014	29774				
C26	9.270	-0.007	18380	46874				
C28	9.801	0.009	76224	79458	IT.DIES	(C10-C24)	1214925	6.0
C32	10.728	-0.007	83746	166743				
C34	11.195	-0.008	50702	157267	CREOSOT	(C12-C22)	516492	10.0
Filter Peak	13.979	-0.003	30507	10663				
C36	11.741	0.013	44643	15576	BUNKERC	(C10-C38)	8799052	115.9
o-terph	7.196	-0.011	16087591	17235690	JET-A	(C10-C18)	628547	3.7
Triacon Surr	10.293	-0.008	14560744	18219745				

Range Times: NW Diesel(4.958 - 8.782) NW Gas(2.797 - 4.958) NW M.Oil(8.782 - 12.407)
AK102(3.951 - 8.958) AK103(8.958 - 11.778) Jet A(3.951 - 7.012)

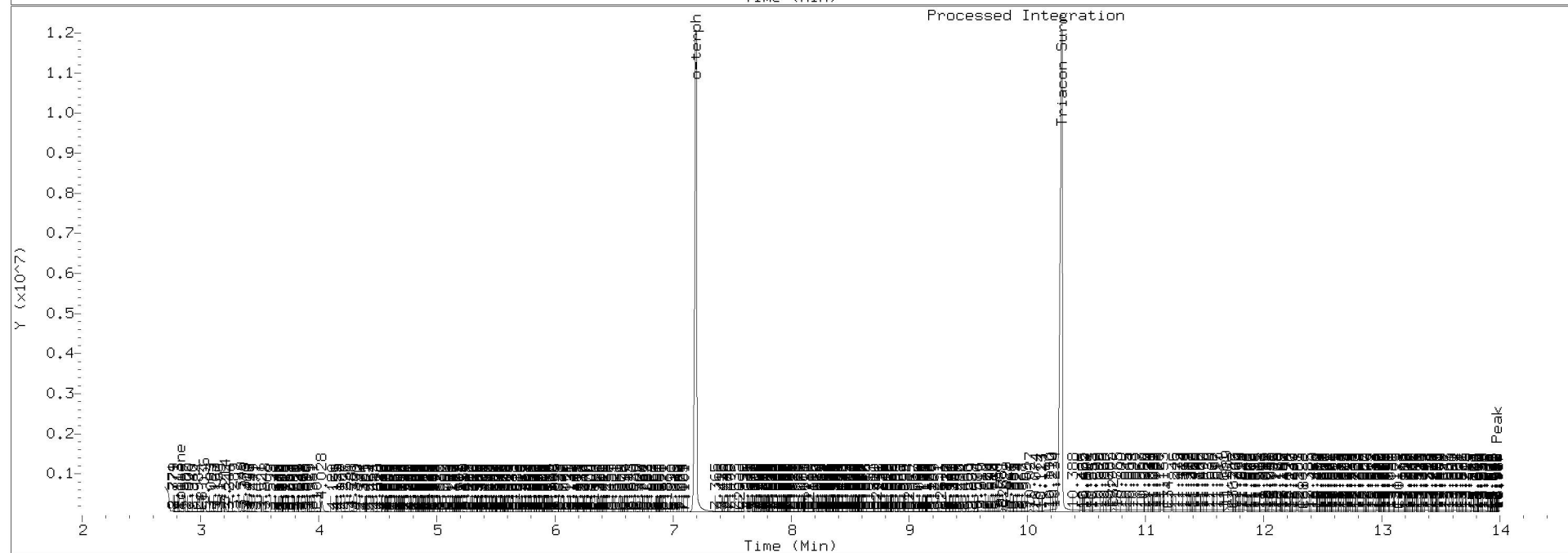
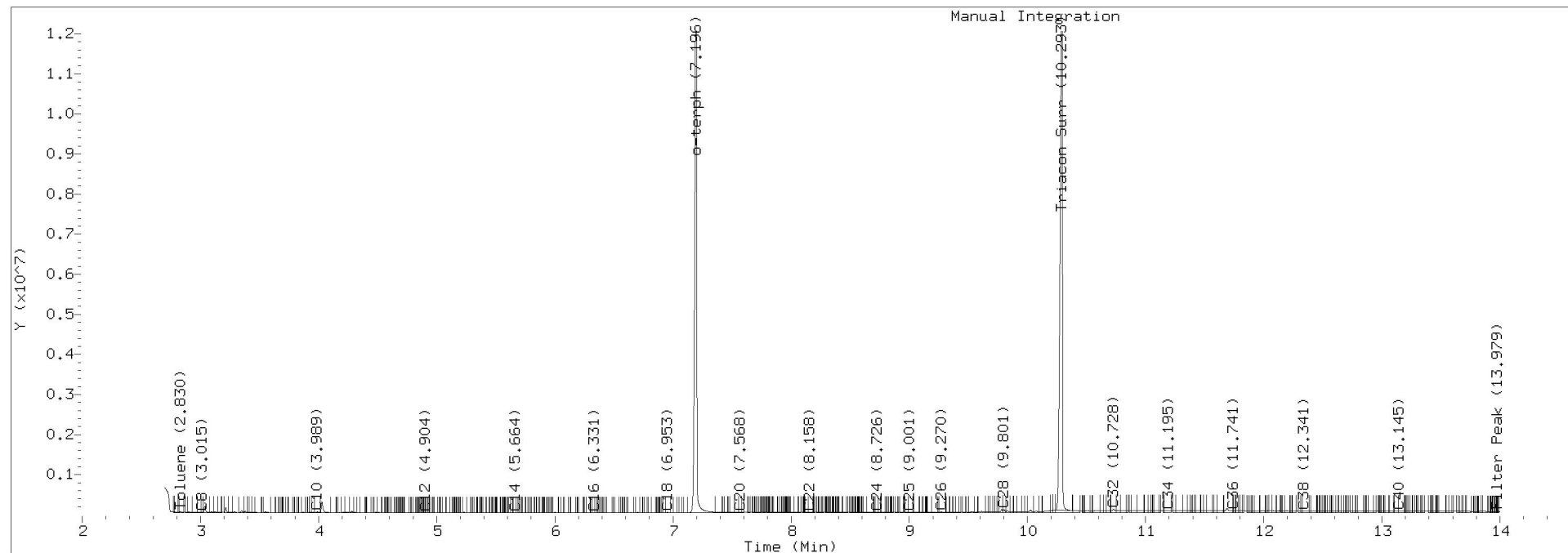
Surrogate	Area	Amount
o-Terphenyl	17235690	71.6
Triacontane	18219745	106.0

Analyte	RF	Curve Date
Gas	179445.5	xx-xx-xxxx
Diesel	172426.7	10-JAN-2022
Motor Oil	124145.6	15-DEC-2021
AK102	203784.0	10-JAN-2022
AK103	95006.4	17-NOV-2021
JetA	172029.3	03-OCT-2018
OR Diesel	204295.0	10-JAN-2022
IT Diesel	203365.7	10-JAN-2022
Bunker C	75926.1	03-OCT-2018
Creosote	51451.5	07-FEB-2019

TPH Manual Integrations Report

Datafile: FID3B, 20220915.b/322I1507.D Injection: 15-SEP-2022 08:34

Lab ID:BKI0203-BLK1





Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC
Petroleum Hydrocarbons - Quality Control

Batch BK10203 - EPA 3510C SepF

Instrument: FID3

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BK10203-BS1)				Prepared: 13-Sep-2022 Analyzed: 15-Sep-2022 08:55						
Diesel Range Organics (C12-C24)	1.99	0.100	mg/L	3.00		66.3	56-120			
Surrogate: o-Terphenyl	0.195		mg/L	0.225		86.8	50-150			

Data File: \\target\share\chem2\fid3b,1\20220915,b\32211508.D

Date : 15-SEP-2022 08:55

Client ID:

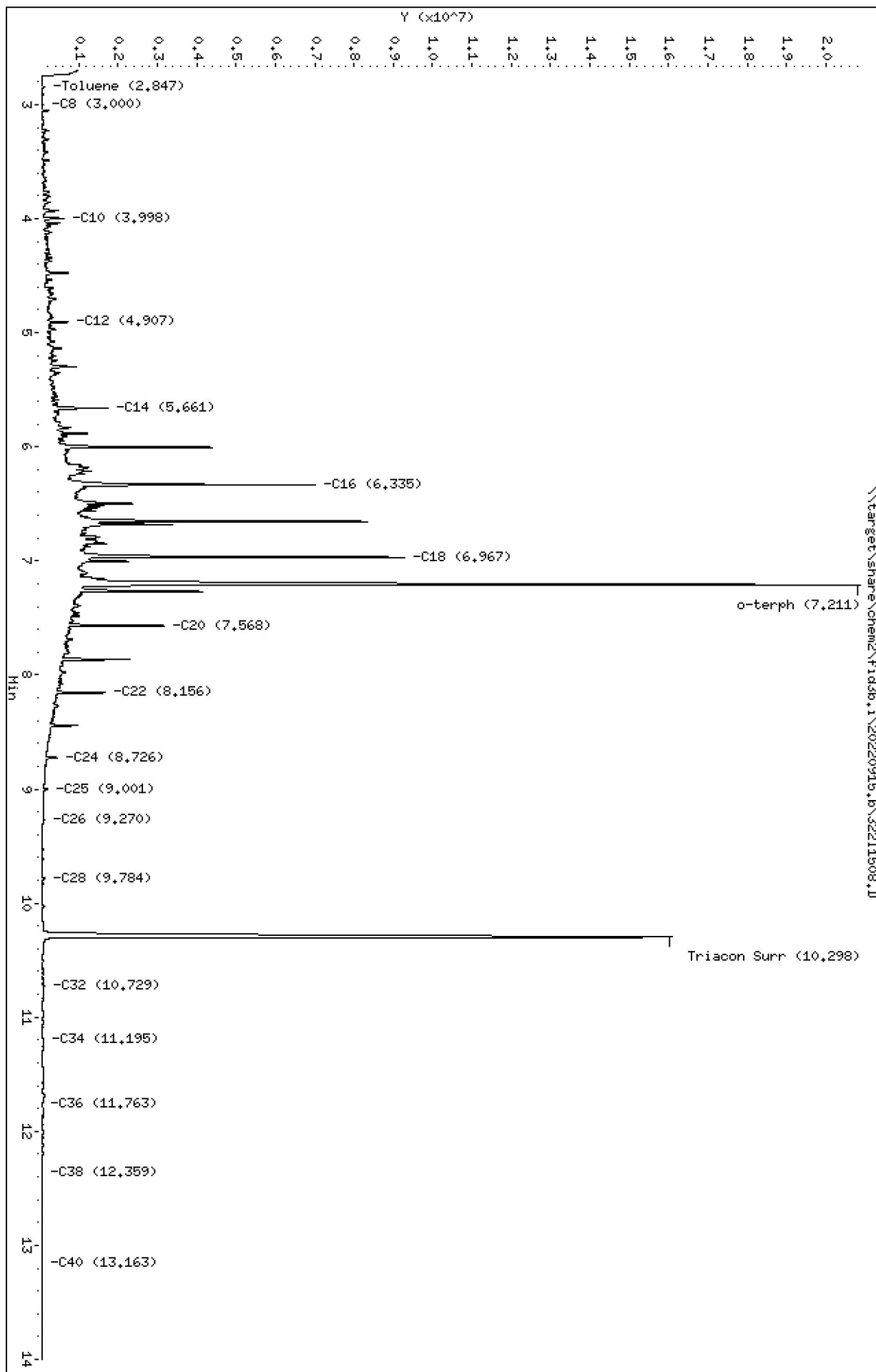
Sample Info: BK10203-B51

Column phase: RTX-1

Instrument: fid3b,1

Operator: JGR/HH

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20220915.b/322I1508.D

Method: 20220915.b\FID3TPH.m

Instrument: fid3b.i, JGR/AA

Report Date: 09/15/2022

Macro: FID3_05052022

Calibration Dates: Gas:xx-xx-xxxx Diesel:10-JAN-2022 M.Oil:15-DEC-2021

ARI ID: BKI0203-BS1

Client ID:

Injection: 15-SEP-2022 08:55

Dilution Factor: 1

RT Std: 322I1503.D

FID:3B RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg per L)
Toluene	2.847	0.001	66404	65187	WATPHG	(Tol-C12)	13667744	76.2
C8	3.000	-0.000	26738	20878	WATPHD	(C12-C24)	171455119	994.4
C10	3.998	-0.003	557549	520962	WATPHM	(C24-C38)	4177275	33.6
C12	4.907	-0.001	651471	764415	AK102	(C10-C25)	182418008	895.2 M
C14	5.661	-0.003	1661051	1803744	AK103	(C25-C36)	2888592	30.4
C16	6.335	0.003	6932289	8517544	OR.DIES	(C10-C28)	183560187	898.5 M
C18	6.967	0.006	9202474	10185093				
C20	7.568	-0.002	3102273	3473675				
C22	8.156	-0.006	1590816	1902541				
C24	8.726	-0.006	371377	650676				
C25	9.001	-0.007	145846	233525				
C26	9.270	-0.008	66381	115412				
C28	9.784	-0.009	79685	81762	IT.DIES	(C10-C24)	181635727	893.1
C32	10.729	-0.006	58860	84755				
C34	11.195	-0.008	20911	44837	CREOSOT	(C12-C22)	163529808	3178.3
Filter Peak	13.980	-0.002	9135	3181				
C36	11.763	0.035	17126	5127	BUNKERC	(C10-C38)	185813002	2447.3
o-terph	7.211	0.004	19659478	23493322	JET-A	(C10-C18)	116002496	674.3
Triacon Surr	10.298	-0.003	16023784	21997159				

Range Times: NW Diesel(4.958 - 8.782) NW Gas(2.797 - 4.958) NW M.Oil(8.782 - 12.407)
AK102(3.951 - 8.958) AK103(8.958 - 11.778) Jet A(3.951 - 7.012)

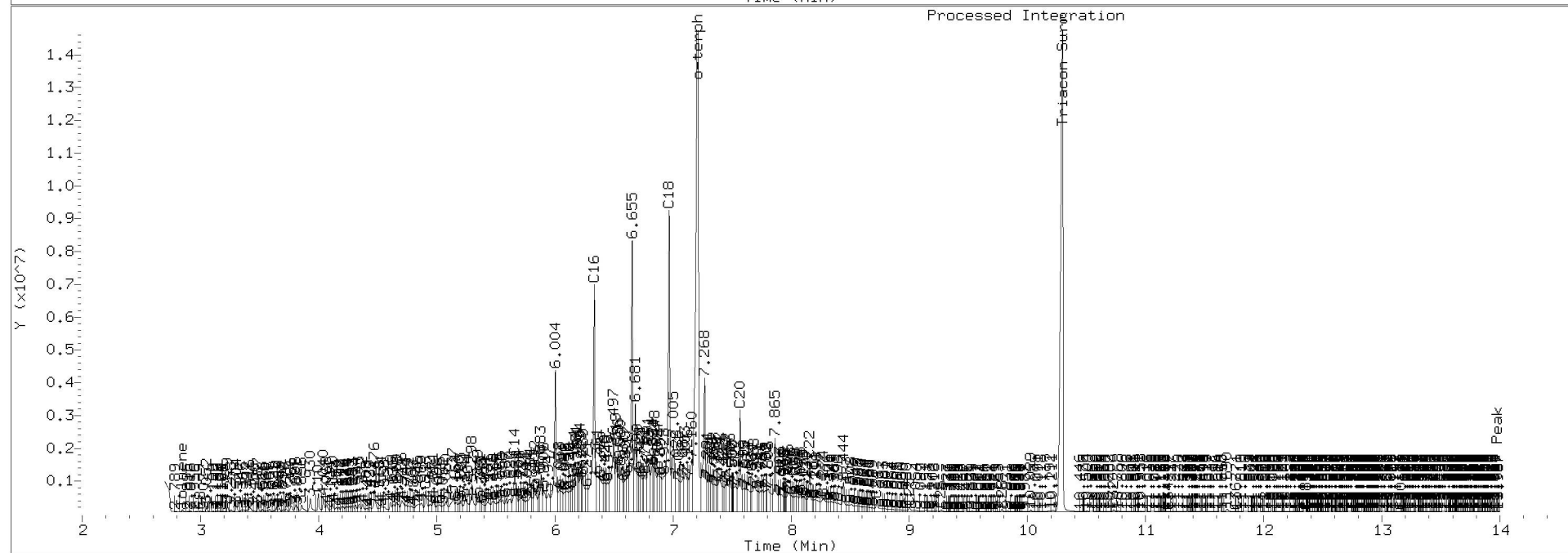
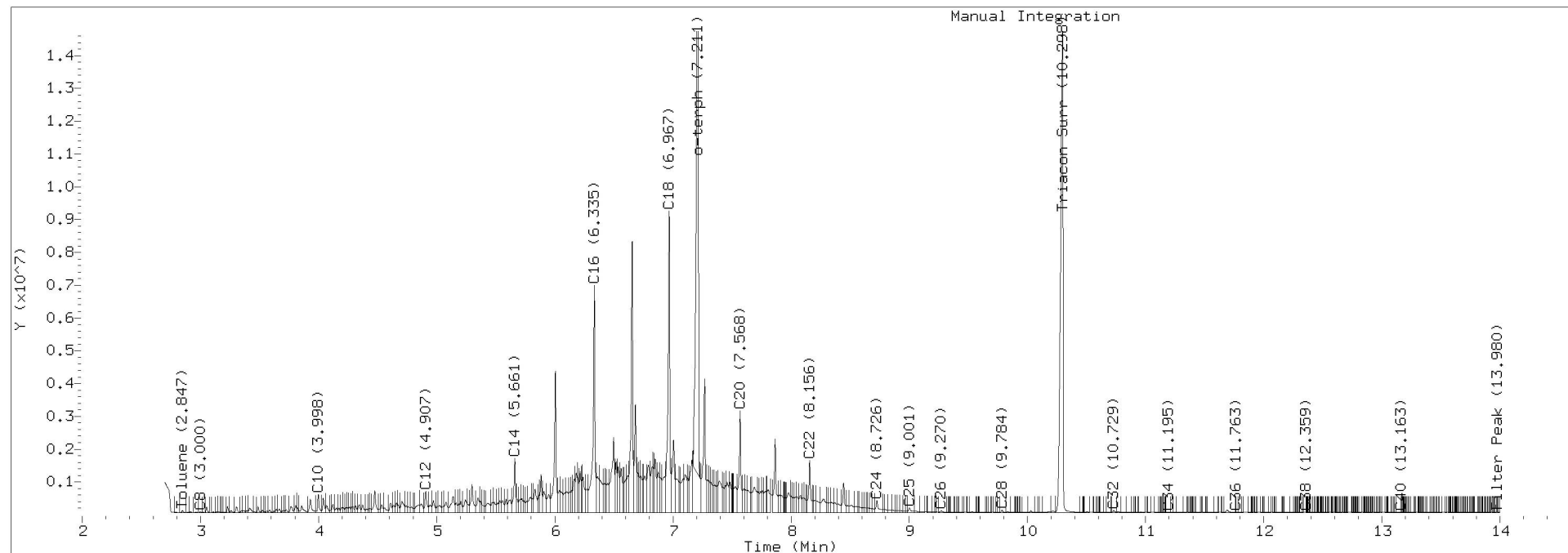
Surrogate	Area	Amount
o-Terphenyl	23493322	97.6
Triacontane	21997159	128.0

Analyte	RF	Curve Date
Gas	179445.5	xx-xx-xxxx
Diesel	172426.7	10-JAN-2022
Motor Oil	124145.6	15-DEC-2021
AK102	203784.0	10-JAN-2022
AK103	95006.4	17-NOV-2021
JetA	172029.3	03-OCT-2018
OR Diesel	204295.0	10-JAN-2022
IT Diesel	203365.7	10-JAN-2022
Bunker C	75926.1	03-OCT-2018
Creosote	51451.5	07-FEB-2019

TPH Manual Integrations Report

Datafile: FID3B, 20220915.b/322I1508.D Injection: 15-SEP-2022 08:55

Lab ID:BKI0203-BS1





Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC
Petroleum Hydrocarbons - Quality Control

Batch BK10203 - EPA 3510C SepF

Instrument: FID3

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BK10203-BSD1)				Prepared: 13-Sep-2022 Analyzed: 15-Sep-2022 09:16						
Diesel Range Organics (C12-C24)	1.99	0.100	mg/L	3.00		66.5	56-120	0.29	30	
Surrogate: o-Terphenyl	0.199		mg/L	0.225		88.6	50-150			

Data File: \\target\share\chem2\fid3b,1\20220915,b\32211509.D

Date : 15-SEP-2022 09:16

Client ID:

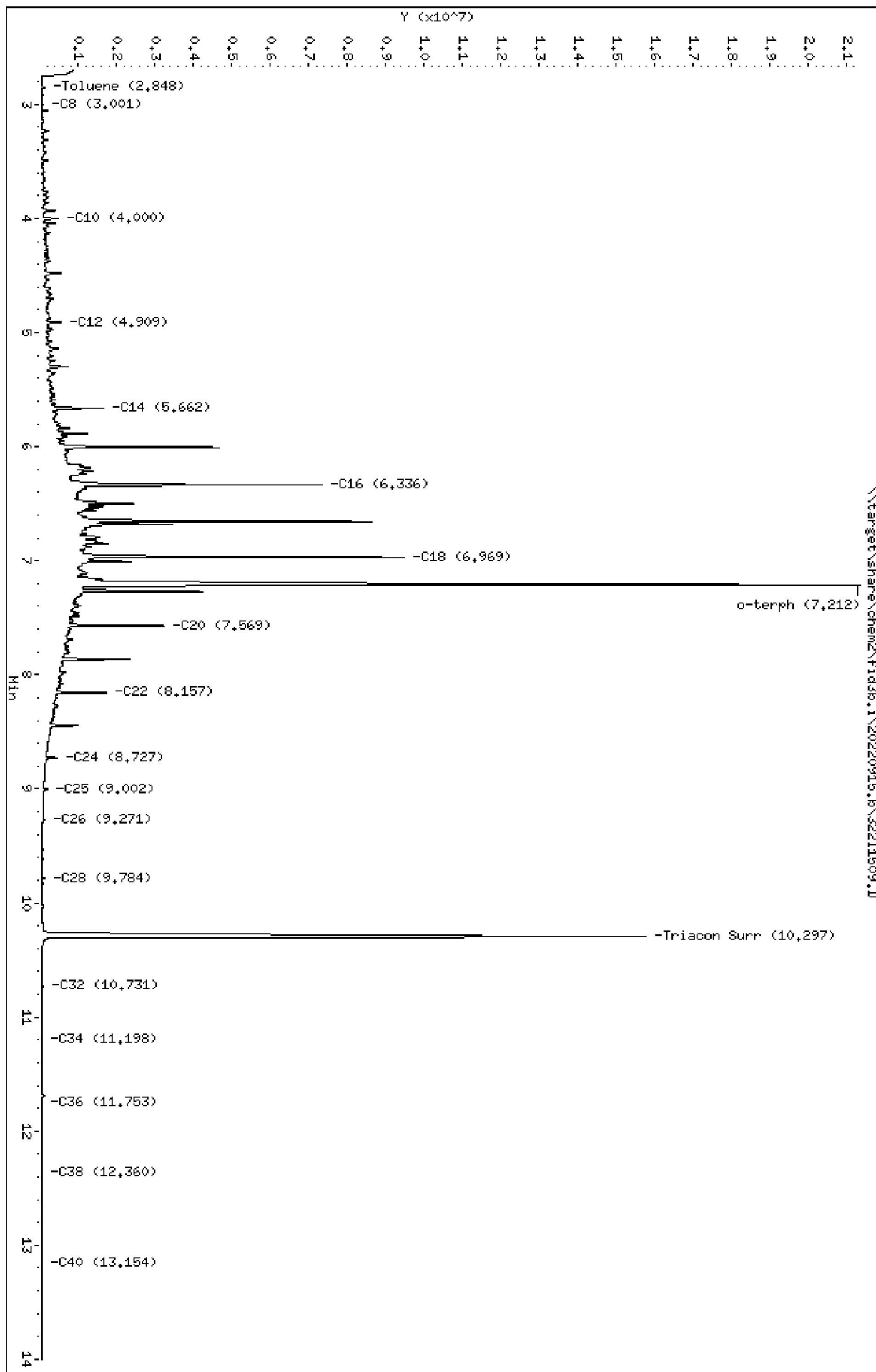
Sample Info: BK10203-BSD1

Column phase: RTX-1

Instrument: fid3b,1

Operator: JGR/HH

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20220915.b/322I1509.D

Method: 20220915.b\FID3TPH.m

Instrument: fid3b.i, JGR/AA

Report Date: 09/15/2022

Macro: FID3_05052022

Calibration Dates: Gas:xx-xx-xxxx Diesel:10-JAN-2022 M.Oil:15-DEC-2021

ARI ID: BKI0203-BSD1

Client ID:

Injection: 15-SEP-2022 09:16

Dilution Factor: 1

RT Std: 322I1503.D

FID:3B RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg per L)
Toluene	2.848	0.002	69270	66731	WATPHG	(Tol-C12)	10969017	61.1
C8	3.001	0.001	19655	16217	WATPHD	(C12-C24)	171960179	997.3
C10	4.000	-0.001	424940	390939	WATPHM	(C24-C38)	3096216	24.9
C12	4.909	0.001	507865	589258	AK102	(C10-C25)	180876567	887.6 M
C14	5.662	-0.001	1598970	1690436	AK103	(C25-C36)	2025683	21.3
C16	6.336	0.004	7272073	8857440	OR.DIES	(C10-C28)	181920929	890.5 M
C18	6.969	0.007	9435386	10191643				
C20	7.569	-0.001	3166762	3531051				
C22	8.157	-0.005	1672147	1864382				
C24	8.727	-0.005	376074	634105				
C25	9.002	-0.006	141703	235364				
C26	9.271	-0.007	56847	104908				
C28	9.784	-0.008	70069	59386	IT.DIES	(C10-C24)	180109508	885.6
C32	10.731	-0.004	41462	58629				
C34	11.198	-0.004	9084	18369	CREOSOT	(C12-C22)	163990854	3187.3
Filter Peak	13.979	-0.003	7406	2943				
C36	11.753	0.025	10360	8638	BUNKERC	(C10-C38)	183205724	2412.9
o-terph	7.212	0.005	20132883	23987460	JET-A	(C10-C18)	114341531	664.7
Triacon Surr	10.297	-0.003	15727562	21152769				

Range Times: NW Diesel(4.958 - 8.782) NW Gas(2.797 - 4.958) NW M.Oil(8.782 - 12.407)
AK102(3.951 - 8.958) AK103(8.958 - 11.778) Jet A(3.951 - 7.012)

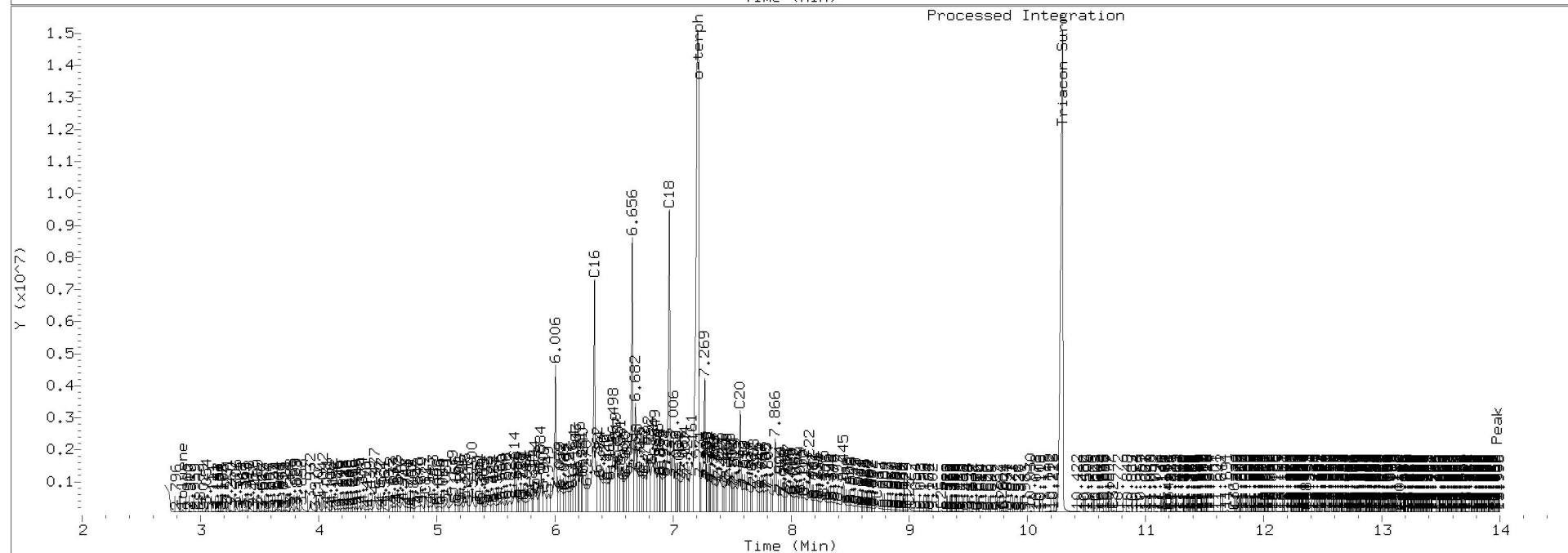
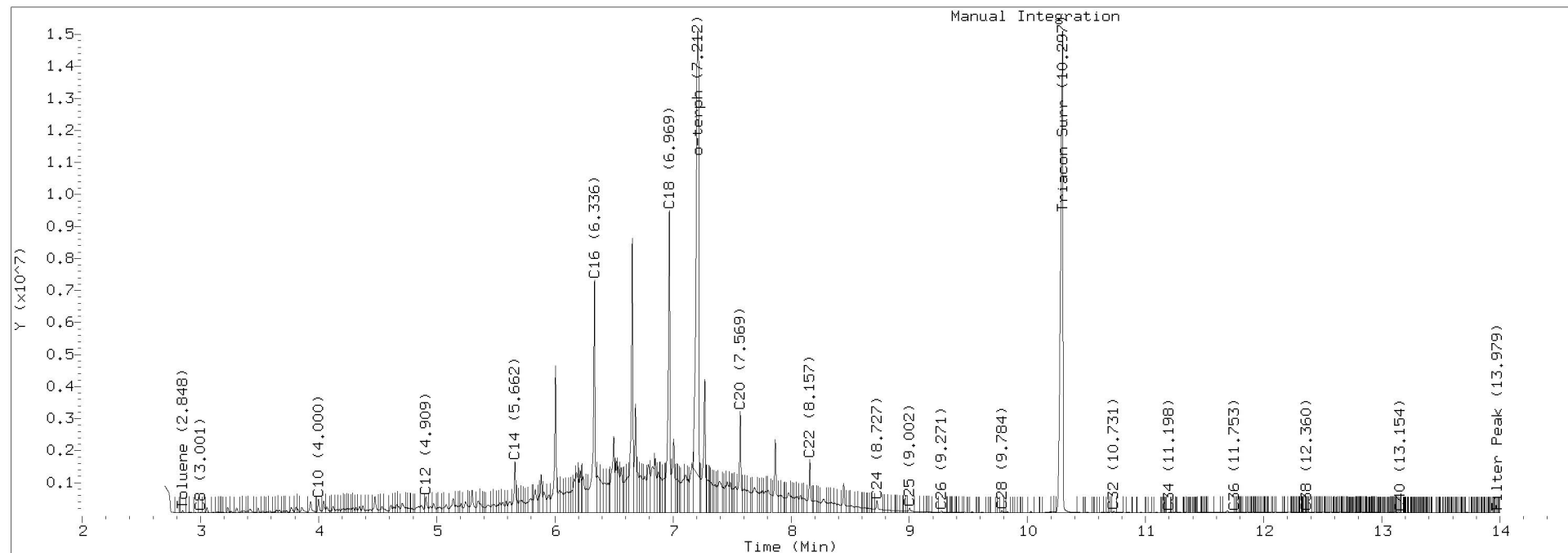
Surrogate	Area	Amount
o-Terphenyl	23987460	99.7
Triacontane	21152769	123.1

Analyte	RF	Curve Date
Gas	179445.5	xx-xx-xxxx
Diesel	172426.7	10-JAN-2022
Motor Oil	124145.6	15-DEC-2021
AK102	203784.0	10-JAN-2022
AK103	95006.4	17-NOV-2021
JetA	172029.3	03-OCT-2018
OR Diesel	204295.0	10-JAN-2022
IT Diesel	203365.7	10-JAN-2022
Bunker C	75926.1	03-OCT-2018
Creosote	51451.5	07-FEB-2019

TPH Manual Integrations Report

Datafile: FID3B, 20220915.b/322I1509.D Injection: 15-SEP-2022 09:16

Lab ID:BKI0203-BSD1





Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BK10211 - No Prep Wet Chem

Instrument: BAL2

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BK10211-BLK1)				Prepared: 12-Sep-2022 Analyzed: 12-Sep-2022 11:25						
Dissolved Solids	ND	5	mg/L							U



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BK10211 - No Prep Wet Chem

Instrument: BAL2

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BK10211-BS1)					Prepared: 12-Sep-2022 Analyzed: 12-Sep-2022 11:25					
Dissolved Solids	507	10	mg/L	501		101	90-110			



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BK10211 - No Prep Wet Chem

Instrument: BAL2

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Duplicate (BK10211-DUP1)		Source: 22I0122-01		Prepared: 12-Sep-2022		Analyzed: 12-Sep-2022 11:25				
Dissolved Solids	101	5	mg/L		92			9.33	20	



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Certified Analyses included in this Report

Analyte	Certifications
EPA 8270E-SIM in Water	
Naphthalene	DoD-ELAP
2-Methylnaphthalene	DoD-ELAP
1-Methylnaphthalene	DoD-ELAP
2-Chloronaphthalene	DoD-ELAP
Biphenyl	DoD-ELAP
2,6-Dimethylnaphthalene	DoD-ELAP
Acenaphthylene	DoD-ELAP
Acenaphthene	DoD-ELAP
Dibenzofuran	DoD-ELAP
2,3,5-Trimethylnaphthalene	DoD-ELAP
Fluorene	DoD-ELAP
Dibenzothiophene	DoD-ELAP
Phenanthrene	DoD-ELAP
Anthracene	DoD-ELAP
Carbazole	DoD-ELAP
1-Methylphenanthrene	DoD-ELAP
Fluoranthene	DoD-ELAP
Pyrene	DoD-ELAP
Benzo(a)anthracene	DoD-ELAP
Chrysene	DoD-ELAP
Benzo(b)fluoranthene	DoD-ELAP
Benzo(k)fluoranthene	DoD-ELAP
Benzo(j)fluoranthene	DoD-ELAP
Benzo(a)fluoranthene, Total	DoD-ELAP
Benzo(e)pyrene	DoD-ELAP
Benzo(a)pyrene	DoD-ELAP
Perylene	DoD-ELAP
Indeno(1,2,3-cd)pyrene	DoD-ELAP
Dibenzo(a,h)anthracene	DoD-ELAP
Benzo(g,h,i)perylene	DoD-ELAP
Benzo(b)thiophene	DoD-ELAP
NWTPH-Dx in Water	
Diesel Range Organics (C12-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C25)	DoD-ELAP,NELAP,WADOE



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Diesel Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C24)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C10-C28)	DoD-ELAP,NELAP,WADOE
Diesel Range Organics (C12-C22)	DoD-ELAP
Diesel Range Organics (C12-C25)	DoD-ELAP
Motor Oil Range Organics (C24-C38)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C25-C36)	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C24-C40)	DoD-ELAP,NELAP,WADOE
Residual Range Organics (C23-C32)	DoD-ELAP
Mineral Spirits Range Organics (Tol-C12)	DoD-ELAP,NELAP,WADOE
Mineral Oil Range Organics (C16-C28)	DoD-ELAP,NELAP,WADOE
Kerosene Range Organics (Tol-C18)	DoD-ELAP,NELAP,WADOE
JP8 Range Organics (C8-C18)	DoD-ELAP,NELAP,WADOE
JP5 Range Organics (C10-C16)	DoD-ELAP,NELAP,WADOE
JP4 Range Organics (Tol-C14)	DoD-ELAP,NELAP,WADOE
Jet-A Range Organics (C10-C18)	DoD-ELAP,NELAP,WADOE
Creosote Range Organics (C12-C22)	DoD-ELAP,NELAP,WADOE
Bunker C Range Organics (C10-C38)	DoD-ELAP,NELAP,WADOE
Stoddard Range Organics (C8-C12)	DoD-ELAP,NELAP,WADOE
Transformer Oil Range Organics (C12-C28)	DoD-ELAP,NELAP,WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2023



Parametrix, Inc.
719 2nd Avenue, Suite 200
Seattle WA, 98104

Project: Durgin Road
Project Number: 555-1857-02
Project Manager: Lisa Gilbert

Reported:
19-Sep-2022 16:02

Notes and Definitions

U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
*	Flagged value is not within established 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
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

Attachment B

Field Data Sheets



Field Report/Well Data

TO:

DATE 9/7/2021		JOB NO. 555-1857-002	
PROJECT Durgin Road			
LOCATION Lacey, WA			
CONTRACTOR		OWNER	
WEATHER Partly cloudy		TEMP 57°	° at 8:53 AM ° at PM
PRESENT AT SITE AARON THOM			

THE FOLLOWING WAS NOTED:

WN (WELL NUMBER)	Time	DTW (DEPTH TO WATER)	MP (MEASURE POINT)	SU (STICK UP OF WELL CASING)	TD (TOTAL DEPTH OF WELL)	WD (WELL DIAMETER)
MW-1A	1005	9.55	TOC			
MW-2A	0956	17.24	TOC			
MW-3A	0946	7.54	TOC			
MW-4A	0920	18.14	Top of bladder pump threads			
✓ MW-5	0913	28.36	TOC			
✓ MW-6	0938	7.30	TOC			
✓ MW-7X	0900	24.38	TOC			
✓ MW-13R	0930	19.06	TOC			

TOC (Top of Locking Casing)

TOW (Top of Well Casing)

COPIES _____

SIGNED _____



Groundwater Sampling Field Data Sheet

Well #: **MW-06**

Project Number: <u>555-1857-002</u>		Date: _____	
Project Name: <u>Durgin Road</u>		Client Name: <u>Lakeside Industries</u>	
Project Address: <u>Lacey, WA</u>		Sampled By: <u>Aaron Thon</u>	
		Purged By: <u>Aaron Thon</u>	

Casing Diameter: <u>2" x</u> <u>4" _</u> <u>6" _</u> Other <u>_____</u>

Initial Depth to Water (feet): <u>7.30</u>	Purge Flow Rate Measurement Method: <u>Grad. Cyl</u>
Depth of Well (feet): <u>38</u>	Date Purged: <u>9/7/22</u>
Top of Screen (feet): <u>22</u>	Purge Time (from/to): <u>1350 1355 - 1450</u>
Reference Point (surveyor's notch, etc.): <u>North</u>	Time Sampled: <u>1500 1455</u>

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units) (± 0.1)	Ec (µmhos/cm 25°C) (± 3%)	TEMP °C	Redox (mv) (± 10)	Dissolved Oxygen mg/L (± 10%)	TURBIDITY (visual)	PUMP SETTING ml/min	Purge Volume (g)
Initial	<u>7.30</u>								
<u>1405</u> <u>1460</u> <u>10</u>	<u>7.30</u>	<u>5.75</u>	<u>127.0</u>	<u>15.3</u>	<u>123.6</u>	<u>2.35</u>	<u>Clear</u>	<u>320</u>	<u>0.75</u>
<u>1410</u> <u>15</u>	<u>7.30</u>	<u>5.68</u>	<u>127.9</u>	<u>15.1</u>	<u>116.1</u>	<u>2.35</u>	<u>Clear</u>	<u>320</u>	<u>1.25</u>
<u>1415</u> <u>20</u>	<u>7.30</u>	<u>5.67</u>	<u>127.1</u>	<u>15.2</u>	<u>75.2</u>	<u>2.38</u>	<u>Clear</u>	<u>320</u>	<u>1.75</u>
<u>1420</u> <u>25</u>	<u>7.30</u>	<u>5.65</u>	<u>126.1</u>	<u>15.0</u>	<u>56.3</u>	<u>2.32</u>	<u>Clear</u>	<u>320</u>	<u>2.25</u>
<u>1425</u> <u>30</u>	<u>7.30</u>	<u>5.66</u>	<u>124.5</u>	<u>15.0</u>	<u>44.2</u>	<u>2.33</u>	<u>Clear</u>	<u>320</u>	<u>2.75</u>
<u>1430</u> <u>35</u>	<u>7.30</u>	<u>5.65</u>	<u>125.3</u>	<u>15.2</u>	<u>41.0</u>	<u>2.61</u>	<u>Clear</u>	<u>320</u>	<u>—</u>
<u>1435</u> <u>40</u>	<u>7.30</u>	<u>5.63</u>	<u>124.7</u>	<u>15.0</u>	<u>26.5</u>	<u>2.64</u>	<u>Clear</u>	<u>320</u>	<u>3.6</u>

Purge Equipment: <u>Peri</u>	Sampling Equipment: <u>Peri</u>
Purge Flow Rate: <u>320 ml/min</u>	Sampling Flow Rate: <u>320 ml/min</u>
Field Parameter Instrument	

Laboratory: <u>ARI</u>	Date Sent to Lab: <u>9/7/22</u>
	Field QC Sample Number: _____
Shipment Method: <u>Delivered</u>	Split With (names[s]/organization): _____

Well Integrity:									
Remarks:									
Time	Depth	pH	SPC	EC	ORP	DO	Turb	Pump	Vol
<u>1440</u> <u>45</u>	<u>7.30</u>	<u>5.64</u>	<u>125.2</u>	<u>15.0</u>	<u>18.0</u>	<u>2.65</u>	<u>Clear</u>	<u>320</u>	<u>4.0</u>
<u>1445</u> <u>50</u>	<u>7.30</u>	<u>5.65</u>	<u>125.0</u>	<u>15.1</u>	<u>11.4</u>	<u>2.64</u>	<u>Clear</u>	<u>320</u>	<u>5.5</u>
<u>1450</u> <u>55</u>	<u>7.30</u>	<u>5.65</u>	<u>125.0</u>	<u>15.0</u>	<u>8.4</u>	<u>2.62</u>	<u>Clear</u>	<u>320</u>	<u>5.0</u>
<u>1455</u> <u>60</u>	<u>Sampled</u>								

Signature: <u>[Signature]</u>

Groundwater Sampling Field Data Sheet

Well #: **MW-13R**

Project Number: <u>555-1857-002</u>		Date: <u>9/17/12</u>	
Project Name: <u>Durgin Road</u>		Client Name: <u>Lakeside Industries</u>	
Project Address: <u>Lacey, WA</u>		Sampled By: <u>Aaron Titum</u>	
		Purged By: <u>Aaron Titum</u>	

Casing Diameter: <u>2" x</u>	<u>4" _</u>	<u>6" _</u>	Other <u>_____</u>
------------------------------	-------------	-------------	--------------------

Initial Depth to Water (feet): <u>19.05</u>	Purge Flow Rate Measurement Method: <u>Graduated cylinder</u>
Depth of Well (feet): <u>37</u>	Date Purged: <u>9/17/12</u>
Top of Screen (feet): <u>17</u>	Purge Time (from/to): <u>1256 - 1321</u>
Reference Point (surveyor's notch, etc.): <u>_____</u>	Time Sampled: <u>1326</u>

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units) (± 0.1)	Ec (µmhos/cm 25°C) (± 3%)	TEMP °C	Redox (mv) (± 10)	Dissolved Oxygen mg/L (± 10%)	TURBIDITY (visual)	PUMP SETTING	
Initial	<u>19.05</u>				<u>123.6</u>				
<u>1306</u>	<u>19.05</u>	<u>5.07</u>	<u>150.7</u>	<u>14.6</u>	<u>57.0</u>	<u>2.15</u>	<u>Clear</u>	<u>350</u>	Purge Volume
<u>1311</u>	<u>19.05</u>	<u>5.69</u>	<u>151.2</u>	<u>14.4</u>	<u>123.9</u>	<u>2.08</u>	<u>Clear</u>	<u>350</u>	1.2 yellow
<u>1316</u>	<u>19.05</u>	<u>5.70</u>	<u>150.8</u>	<u>14.4</u>	<u>121.8</u>	<u>2.05</u>	<u>Clear</u>	<u>350</u>	1.5
<u>1321</u>	<u>19.05</u>	<u>5.70</u>	<u>150.9</u>	<u>14.4</u>	<u>118.7</u>	<u>2.04</u>	<u>Clear</u>	<u>350</u>	1.9
									2.3

Purge Equipment: <u>Peri</u>	Sampling Equipment: <u>Peri</u>
Purge Flow Rate: <u>350 ml/min</u>	Sampling Flow Rate: <u>350 ml/min</u>
Field Parameter Instrument	

Laboratory: <u>ARI</u>	Date Sent to Lab: <u>9/17/12</u>
	Field QC Sample Number: <u>_____</u>
Shipment Method: <u>Delivered</u>	Split With (names[s]/organization): <u>_____</u>

Well Integrity:
Remarks:
Signature: <u></u>

Groundwater Sampling Field Data Sheet

Well #: **MW-05**

Project Number: <u>555-1857-002</u>		Date: <u>9/7/22</u>	
Project Name: <u>Durgin Road</u>		Client Name: <u>Lakeside Industries</u>	
Project Address: <u>Lacey, WA</u>		Sampled By: <u>A. Thom</u>	
		Purged By: <u>A. Thom</u>	

Casing Diameter: <u>2" x</u>	<u>4" _</u>	<u>6" _</u>	Other: <u>_____</u>
------------------------------	-------------	-------------	---------------------

Initial Depth to Water (feet): <u>28.38</u>	Purge Flow Rate Measurement Method: <u>Graduated cylinder</u>
Depth of Well (feet): <u>38</u>	Date Purged: <u>9/7/22</u>
Top of Screen (feet): <u>22</u>	Purge Time (from/to): <u>1145 - 1155 - 1220</u>
Reference Point (surveyor's notch, etc.): <u>Neft</u>	Time Sampled: <u>1225</u>

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units) (± 0.1)	Ec (µmhos/cm 25°C) (± 3%)	TEMP °C	Redox (mv) (± 10)	Dissolved Oxygen mg/L (± 10%)	TURBIDITY (visual)	PUMP SETTING	Purge (g) val (g)
<u>Initial</u>	<u>28.38</u>								
<u>1205</u>	<u>28.38</u>	<u>5.50</u>	<u>127.0</u>	<u>14.5</u>	<u>103.6</u>	<u>5.16</u>	<u>Clear</u>	<u>300 ml</u>	<u>0.75</u>
<u>1210</u>	<u>28.38</u>	<u>5.50</u>	<u>126.5</u>	<u>14.4</u>	<u>126.2</u>	<u>6.63</u>	<u>Clear</u>	<u>300</u>	<u>1.15</u>
<u>1215</u>	<u>28.38</u>	<u>5.51</u>	<u>125.0</u>	<u>14.7</u>	<u>125.1</u>	<u>6.51</u>	<u>Clear</u>	<u>300</u>	<u>1.5</u>
<u>1220</u>	<u>28.38</u>	<u>5.53</u>	<u>125.6</u>	<u>14.5</u>	<u>126.0</u>	<u>6.50</u>	<u>Clear</u>	<u>300</u>	
<u>30</u>									
<u>35</u>									
<u>40</u>									

Purge Equipment: <u>Peri</u>	Sampling Equipment: <u>Peri</u>
Purge Flow Rate: <u>300 ml/min</u>	Sampling Flow Rate: <u>300 ml/min</u>
Field Parameter Instrument	

Laboratory: <u>ARI</u>	Date Sent to Lab: <u>9/7/22</u>
	Field QC Sample Number: _____
Shipment Method: <u>Refrigerated</u>	Split With (names[s]/organization): _____

Well Integrity:
Remarks:
Signature: <u>[Signature]</u>

Groundwater Sampling Field Data Sheet

Well #: **MW-07X**

Project Number: <u>555-1857-002</u>		Date: <u>9/7/22</u>	
Project Name: <u>Durgin Road</u>		Client Name: <u>Lakeside Industries</u>	
Project Address: <u>Lacey, WA</u>		Sampled By: <u>A. Thom</u>	
		Purged By: <u>A. Thom</u>	

Casing Diameter:	2" <u>x</u>	4" <u> </u>	6" <u> </u>	Other <u> </u>
------------------	-------------	--------------	--------------	-----------------

Initial Depth to Water (feet): <u>24.37</u>	Purge Flow Rate Measurement Method: <u>Grad Cylinder</u>
Depth of Well (feet): <u>38</u>	Date Purged: <u>9/7/22</u>
Top of Screen (feet): <u>18</u>	Purge Time (from/to): <u>1044 to 1104</u>
Reference Point (surveyor's notch, etc.): <u>North</u>	Time Sampled: <u>1109</u>

TIME (2400 hr)	DEPTH TO WATER (ft)	pH (units) (± 0.1)	Ec (µmhos/cm 25°C) (± 3%)	TEMP °C	Redox (mv) (± 10)	Dissolved Oxygen mg/L (± 10%)	TURBIDITY (visual)	PUMP SETTING ml/min
Initial	<u>24.37</u>							
<u>1054</u> 10	<u>24.37</u>	<u>5.52</u>	<u>164.9</u>	<u>14.0</u>	<u>88.1</u>	<u>1.38</u>	<u>clear</u>	<u>350</u> <u>300</u>
<u>1059</u> 15	<u>24.37</u>	<u>5.49</u>	<u>164.7</u>	<u>14.0</u>	<u>90.3</u>	<u>1.39</u>	<u>clear</u>	<u>300</u>
<u>1104</u> 20	<u>24.37</u>	<u>5.48</u>	<u>164.7</u>	<u>14.0</u>	<u>91.3</u>	<u>1.47</u>	<u>clear</u>	<u>300</u>

Purge Equipment: <u>Peri</u>	Sampling Equipment: <u>Peri</u>
Purge Flow Rate: <u>300 ml/min</u>	Sampling Flow Rate: <u>300 ml/min</u>
Field Parameter Instrument	

Laboratory: <u>ARI</u>	Date Sent to Lab: <u>9/7/22</u>
	Field QC Sample Number: <u> </u>
Shipment Method: <u>Deliver</u>	Split With (names[s]/organization): <u> </u>

Well Integrity:
Remarks: <u>Intake @ 30'</u>
Signature: <u></u>

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page:	1	of	1
ARI Client Company:	Standard (2 weeks)	Date:	9/7/12	Ice Present?	Y
Client Contact:	Phone: 206.394.3700	No. of Coolers:		Cooler Temps:	



Analytical Resources, LLC
 Analytical Chemists and Consultants
 4611 South 134th Place, Suite 100
 Tukwila, WA 98168
 206-695-6200 206-695-6201 (fax)

Client Project Name:	LakeSide Industries/Purkin Rd.				Analysis Requested				Notes/Comments						
Client Project #:	555-1853-002				Samplers:				Apoos Then						
Sample ID	Date	Time	Matrix	No. Containers	TDS	TH-D	PAH								
MW-5	9/7/12	1225	Water	5	X	X	X								
MW-6	9/7/12	1455	"	86	X	X	X								
MW-7x	9/7/12	1109	"	3	X	X									
MW-13R	9/7/12	1326	"	5	X	X	X								
Comments/Special Instructions															
Relinquished by:				Received by:				Relinquished by:				Received by:			
(Signature)				(Signature)				(Signature)				(Signature)			
Printed Name:				Printed Name:				Printed Name:				Printed Name:			
Company:				Company:				Company:				Company:			
Date & Time:				Date & Time:				Date & Time:				Date & Time:			

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.