



April 6, 2021

Electronic Delivery Only

Prathrap Kodial
Project Manager
Facilities Engineering, Crowley Fuels, LLC
201 Arctic Slope Ave.
Anchorage, AK 99518

RE: Removal of Institutional Controls – Vehicle Rollover MP 173 Richardson Highway

Dear Mr. Kodial,

On June 6, 2006, a truck operated by Service Oil and Gas (owned by Crowley Fuels, LLC) was involved in an accident at Milepost 171 of the Richardson Highway. The accident resulted in the release of approximately 580 gallons of unleaded gasoline on the west side of the Richardson Highway near Meiers Lake. A small but unknown amount of diesel fuel also leaked from the truck's saddle tank. Spill response activities conducted in 2006 included installation of interception trenches, use of sorbent booms, and flushing the spill area with water. An estimated 200 gallons of fuel was recovered with sorbent booms and vacuum trucks. The site was subsequently entered into the Contaminated Sites Database as "Vehicle Rollover MP 173^a Richardson Highway." Following product recovery activities, the site was granted a Cleanup Complete determination with institutional controls in September 2007. The 2007 cleanup complete letter indicated that residual soil contamination at the site did not pose an unacceptable risk to human health or the environment unless the soil is excavated during road construction activities. Institutional controls established as part of the site closure required that any proposal to excavate in the spill area would require the responsible party to hire a qualified environmental professional to create a work plan for management of contaminated soil.

The Alaska Department of Transportation and Public Facilities (ADOT&PF) intends to realign the Richardson Highway in the area of the spill site, which prompted Crowley Fuels to conduct a site characterization of the release area. In September 2019, a drill rig was used to advance soil borings in 26 locations in the road and right-of-way. Soil samples were field screened and analytical soil samples were collected and analyzed for diesel range organics (DRO), gasoline range organics (GRO), residual range organics (RRO), volatile organic compounds (VOCs), and polynuclear aromatic hydrocarbons (PAHs). Residual contamination exceeded the ADEC Method Two Migration to Groundwater cleanup levels in samples collected at 0-10 ft. below ground surface. The approved cleanup levels and residual concentrations are presented in Table 1 and on the attached figure. Deeper samples and all samples collected under the road surface and shoulder did not contain detectable quantities of any contaminants.

^a ADEC notes that the Service Oil and Gas rollover actually occurred at MP 171 Richardson Highway.

Table 1 Contamination remaining in surface and subsurface soils.

Contaminant of Concern	Highest Concentration Observed, 2019 Sampling (mg/kg)	ADEC Cleanup Levels (mg/kg)	
		Migration to Groundwater	Human Health
Benzene	0.519	0.022	11
Ethylbenzene	2.18	0.13	49
Xylenes	18.3	1.5	57
1,2,4-trimethylbenzene	9.32	0.61	43
1,3,5-trimethylbenzene	4.69	0.66	37
Naphthalene	0.145	0.038	29

mg/kg = milligrams per kilogram

ADEC DETERMINATION

Residual soil contamination at the Vehicle Rollover MP 173 Richardson Highway does not pose an unacceptable risk to human health or the environment. Institutional controls will be removed from the site and it will receive a “Cleanup Complete” designation in the Contaminated Sites Database, subject to the standard conditions applied to all sites.

Standard Conditions

1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC approval in accordance with 18 AAC 75.325(i). A “site” as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment. A copy of the letter will be sent to ADOT&PF to aid in planning of future road projects.

Thank you for your assistance in protecting human health and the environment, if you have any questions do not hesitate to contact me at (907) 451-5174 or via email at michael.hooper@alaska.gov.

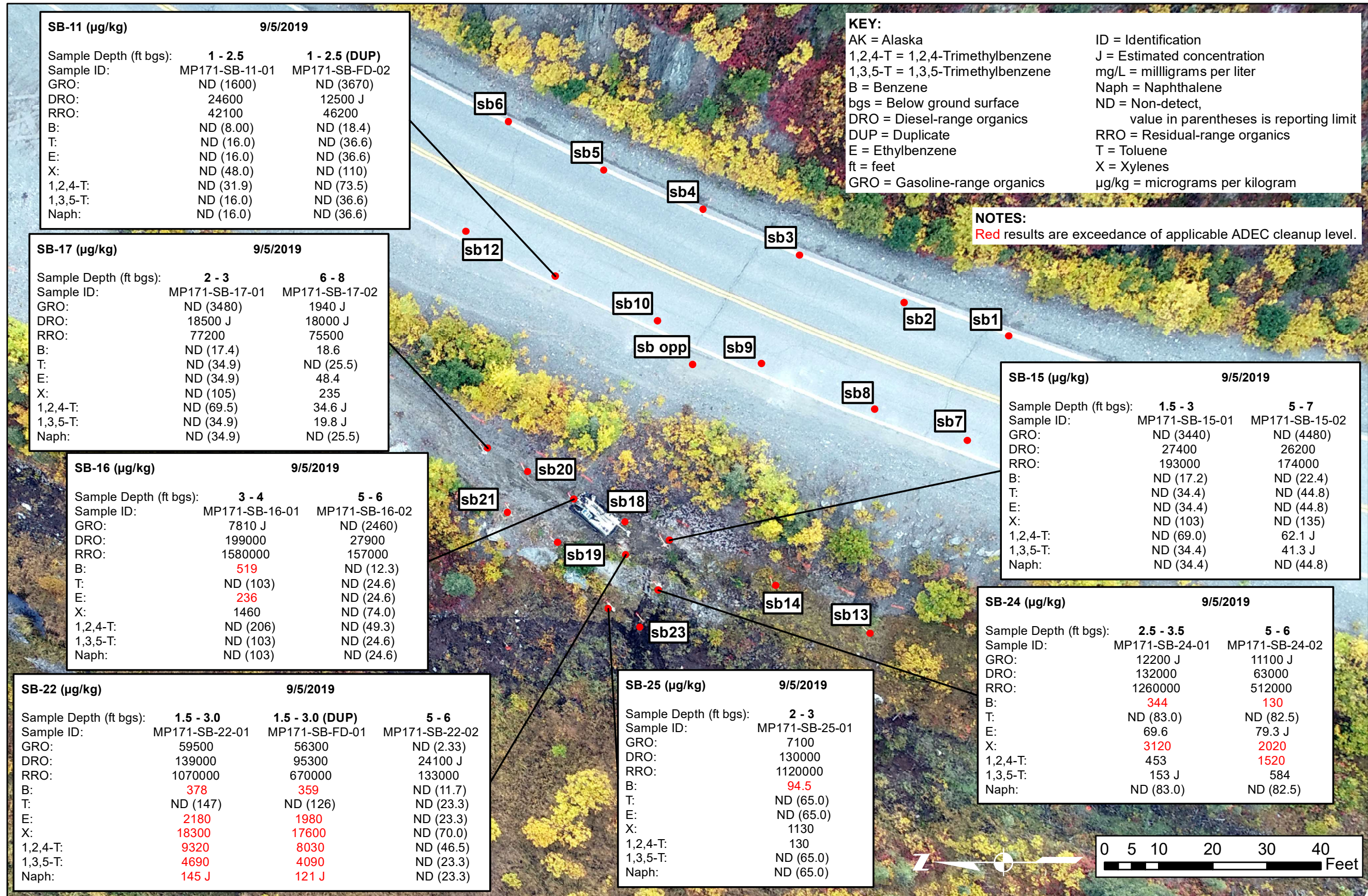
Sincerely,

Michael Hooper

Environmental Program Specialist

cc (via email): Dan Adamczak (ADOT&PF)
Jamie McKellar (ADEC)
Eric Breitenberger (ADEC)
Evonne Reese (ADEC)

Enclosure: Site figure showing 2019 Sampling Results



SB-11 (µg/kg) 9/5/2019

Sample Depth (ft bgs):	1 - 2.5	1 - 2.5 (DUP)
Sample ID:	MP171-SB-11-01	MP171-SB-FD-02
GRO:	ND (1600)	ND (3670)
DRO:	24600	12500 J
RRO:	42100	46200
B:	ND (8.00)	ND (18.4)
T:	ND (16.0)	ND (36.6)
E:	ND (16.0)	ND (36.6)
X:	ND (48.0)	ND (110)
1,2,4-T:	ND (31.9)	ND (73.5)
1,3,5-T:	ND (16.0)	ND (36.6)
Naph:	ND (16.0)	ND (36.6)

SB-17 (µg/kg) 9/5/2019

Sample Depth (ft bgs):	2 - 3	6 - 8
Sample ID:	MP171-SB-17-01	MP171-SB-17-02
GRO:	ND (3480)	1940 J
DRO:	18500 J	18000 J
RRO:	77200	75500
B:	ND (17.4)	18.6
T:	ND (34.9)	ND (25.5)
E:	ND (34.9)	48.4
X:	ND (105)	235
1,2,4-T:	ND (69.5)	34.6 J
1,3,5-T:	ND (34.9)	19.8 J
Naph:	ND (34.9)	ND (25.5)

SB-16 (µg/kg) 9/5/2019

Sample Depth (ft bgs):	3 - 4	5 - 6
Sample ID:	MP171-SB-16-01	MP171-SB-16-02
GRO:	7810 J	ND (2460)
DRO:	199000	27900
RRO:	1580000	157000
B:	519	ND (12.3)
T:	ND (103)	ND (24.6)
E:	236	ND (24.6)
X:	1460	ND (74.0)
1,2,4-T:	ND (206)	ND (49.3)
1,3,5-T:	ND (103)	ND (24.6)
Naph:	ND (103)	ND (24.6)

SB-22 (µg/kg) 9/5/2019

Sample Depth (ft bgs):	1.5 - 3.0	1.5 - 3.0 (DUP)	5 - 6
Sample ID:	MP171-SB-22-01	MP171-SB-FD-01	MP171-SB-22-02
GRO:	59500	56300	ND (2.33)
DRO:	139000	95300	24100 J
RRO:	1070000	670000	133000
B:	378	359	ND (11.7)
T:	ND (147)	ND (126)	ND (23.3)
E:	2180	1980	ND (23.3)
X:	18300	17600	ND (70.0)
1,2,4-T:	9320	8030	ND (46.5)
1,3,5-T:	4690	4090	ND (23.3)
Naph:	145 J	121 J	ND (23.3)

SB-25 (µg/kg) 9/5/2019

Sample Depth (ft bgs):	2 - 3
Sample ID:	MP171-SB-25-01
GRO:	7100
DRO:	130000
RRO:	1120000
B:	94.5
T:	ND (65.0)
E:	ND (65.0)
X:	1130
1,2,4-T:	130
1,3,5-T:	ND (65.0)
Naph:	ND (65.0)

SB-15 (µg/kg) 9/5/2019

Sample Depth (ft bgs):	1.5 - 3	5 - 7
Sample ID:	MP171-SB-15-01	MP171-SB-15-02
GRO:	ND (3440)	ND (4480)
DRO:	27400	26200
RRO:	193000	174000
B:	ND (17.2)	ND (22.4)
T:	ND (34.4)	ND (44.8)
E:	ND (34.4)	ND (44.8)
X:	ND (103)	ND (135)
1,2,4-T:	ND (69.0)	62.1 J
1,3,5-T:	ND (34.4)	41.3 J
Naph:	ND (34.4)	ND (44.8)

SB-24 (µg/kg) 9/5/2019

Sample Depth (ft bgs):	2.5 - 3.5	5 - 6
Sample ID:	MP171-SB-24-01	MP171-SB-24-02
GRO:	12200 J	11100 J
DRO:	132000	63000
RRO:	1260000	512000
B:	344	130
T:	ND (83.0)	ND (82.5)
E:	69.6	79.3 J
X:	3120	2020
1,2,4-T:	453	1520
1,3,5-T:	153 J	584
Naph:	ND (83.0)	ND (82.5)

KEY:
 AK = Alaska
 1,2,4-T = 1,2,4-Trimethylbenzene
 1,3,5-T = 1,3,5-Trimethylbenzene
 B = Benzene
 bgs = Below ground surface
 DRO = Diesel-range organics
 DUP = Duplicate
 E = Ethylbenzene
 ft = feet
 GRO = Gasoline-range organics
 ID = Identification
 J = Estimated concentration
 mg/L = milligrams per liter
 Naph = Naphthalene
 ND = Non-detect,
 value in parentheses is reporting limit
 RRO = Residual-range organics
 T = Toluene
 X = Xylenes
 µg/kg = micrograms per kilogram

NOTES:
 Red results are exceedance of applicable ADEC cleanup level.

Figure: **5**

Sample Analysis

Date: 5/18/2020
 Drafted By: ECR
 19.CMS.03
 Checked By: DJF

MP 171 Site Characterization Report

1 in = 18 ft

