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BARR

Immediate Action Report and NFA Request

To: Mathew Turner, Superior Refining Company, LLC
From: Lynette Carney and Kaitlin Montz
Subject: Tank 47 Crude Pipeline Release
Date: September 21, 2021
Project: 49161468.02 300 302
WDNR SERTS: 20210830NO16-1 – Crude Oil

This report summarizes the immediate environmental response activities performed by Barr Engineering Co. (Barr) and Insight Environmental (Insight) at the request of Superior Refining Company LLC (SRC) following the petroleum release from a crude oil pipeline in a maintenance excavation in the Tank 47 basin at the Superior Refinery in Superior, Wisconsin (Figure 1).

Background

On August 30, 2021, an SRC operator observed approximately 50 gallons of oil in a pipeline maintenance excavation in the southeast corner of the Tank 47 containment dike (Photo 1, Photo 2 and Figure 2). The source of the release was a leaking cold tap that had been installed on the pipeline during recent maintenance activities but began to leak sometime after it was installed. Immediately upon discovery, the cold tap leak was repaired, and free liquids were vacuumed up and a containment pan was put under the valve until the pipeline was de-inventoried later that same day.

The Wisconsin Department of Natural Resources (WDNR) was immediately notified of the release upon discovery by SRC on August 30, 2021. The WDNR assigned spill tracking number 20210830NO16-1 to the site. The associated WDNR *Notification For Hazardous Substance Discharge* reporting form and the Tank 47 release site and site contact information is provided in Attachment A.

In response to this release, and in accordance with NR 708.05 and the approved facility-wide *Site Investigation Report and Response Action Plan (SI/RAP) (*Gannett Fleming, 2014*)*, SRC arranged for the hydrocarbon impacted soil to be excavated and temporarily stockpiled on site until arrangements for offsite disposal at a landfill could be made. SRC requested that Barr and Insight assist with the following activities:

- field screen soil during the excavation to guide remediation efforts;
- collect soil samples from the final excavation extents for laboratory analysis to document residual soil conditions, and
- prepare a report summarizing the response actions and site conditions upon the completion of remedial activities.

Documentation of the immediate actions are being provided in accordance with NR 708.05 (6) and to support a no further action request under NR 708.09.

Field Activity Summary and Sample Results

The soil excavation response action was initiated by SRC and their contractor on August 31, the day following discovery of the release. Barr and Insight were on site to document response cleanup activities and to collect soil field screening and analytical samples from the final excavation limits. Soil headspace screening samples were collected from the removed soil and from the final sidewalls and bottom of the excavation and tested for the presence of organic vapors using a 10.6 eV photoionization detector (PID). PID headspace readings and other evidence of hydrocarbon impacts, such as odor and soil discoloration, were recorded on the field sampling and screening logs provided in Attachment B.

The final excavation extent was approximately 24 feet (northwest to southeast) by 14 feet (northeast to southwest) and up to 11 feet below ground surface (bgs) (Photo 5, Photo 6 and Attachment B). Clay soil was observed in the excavation sidewalls and bottom.

Insight collected 17 field screening soil samples (Photo 3 and Photo 4) and nine analytical confirmation soil samples (*TK47-B-1, TK47-S-1, TK47-S-2, TK47-S-3, TK47-S-4, TK47-S-5, TK47-S-6, TK47-S-7, and TK47-S-8*). Two analytical confirmation soil samples were collected from each side wall, one shallow (< 4.0 ft. bgs) and one deep (>4.0 ft. bgs). The soil analytical samples were submitted to ALS Laboratory (ALS) in Holland, Michigan for analysis of petroleum volatile organic compounds (PVOCs) plus naphthalene. The analytical confirmation soil sample locations are shown on Figure 2. Field headspace screening soil sample location and results are shown on the field screening form in Attachment B.

The field headspace screening results for soil samples collected from the final excavation extents did not identify evidence of hydrocarbon impacts. Headspace readings from the final sidewall and bottom soil headspace screening samples resulted in concentrations between 0.7 parts per million and 2.8 ppm. Laboratory results from the correlating laboratory samples collected at the final excavation extents did not show PVOC or naphthalene compound detections in any of the nine samples. The analytical results are summarized in Table 1 and the ALS laboratory report is provided in Attachment C.

Receptor Survey

No direct contact risks were identified in shallow soil based on the field screening and analytical sampling results. No impacts to surface water were identified and there is little risk of future surface water impacts based on the site's location within the tank containment basin. No groundwater risks were identified based on the immediate nature of the response actions and as documented by the soil analytical sampling results, and no water supply wells were identified within 500 feet of the release site location.

In addition, the groundwater pathway at the Superior Refinery is addressed on a facility-wide basis through the established hydrogeologic performance standard approved by the WDNR. SRC samples the

Refinery monitoring well network (Figure 3) on a semi-annual basis and provides the data to the WDNR on an annual basis.

The nearest enclosed structures are slab-on-grade refinery buildings approximately 650 feet southeast. The risk of hazardous vapor accumulation in those structures is low due to the documented soil conditions, the distance to the structures, and the slab-on-grade construction.

Material Management

Free liquids were removed from the excavation the same day as the release with a vacuum truck and transported to the on-site API separator and treated at the on-site Wastewater Treatment Plant.

During the response excavation, soil with evidence of hydrocarbon contamination was transported to the on-site three-sided contaminated soil storage building for secure and temporary staging prior to arranging for offsite disposal (Photo 7). The contaminated soil was disposed of under the SRC's facility-specific waste profile at Shamrock Environmental, LLC landfill in Cloquet, Minnesota. A total of 45.30 tons of contaminated soil was hauled to the landfill on September 3, 2021. Waste profile documents and the landfill summary report are included in Attachment D.

Conclusions

Approximately 50 gallons of crude oil, diesel fuel, and LEL suppressant mix were found to have leaked from a crude pipeline into an open excavation in the southeast corner of the Tank 47 containment dike. Upon discovery, the leak was immediately fixed, the crude pipeline was de-inventoried, free liquids were removed, and contaminated soil was excavated. Excavated soil with evidence of hydrocarbon contamination was managed and disposed of at an offsite landfill.

Based on the field screening and confirmation analytical sample results from the final excavation limits, the release was successfully remediated with no residual soil contamination remaining above the WDNR Direct Contact or Groundwater Residual Contaminant Limits (RCLs) remains. Clean backfill will be used to replace the excavated material upon completion of the maintenance activities at this location.

Based on the information provided in this report, the spill was contained to the maintenance excavation and successfully and fully remediated within 24-36 hours of discovery. The land use at the facility is industrial and is not expected to change. The soil in the vicinity of the release were documented to be clay material with extremely low permeability (Gannett Fleming, 2014). No direct contact or vapor risks remain and no potential impacts to nearby surface water and groundwater receptors were identified.

This report provides the required documentation to demonstrate that the immediate response action is complete, and no further action is necessary to investigate or respond to this release. SRC is requesting a no further Action (NFA) determination from the WDNR for this release in accordance with NR708.09.

Reference

Gannett Fleming, 2014. *Site Investigation and Response Action Plan Calumet Superior LLC Refinery, Superior Wisconsin, WDNR BRRTS# 02-16-559511*. Prepared for Calumet Superior LLC, April 2014.

Site Photographs

Photo 1 Oil contamination in excavation. Photo taken by SRC on August 30, 2021.
Photo 2 Oil contamination in excavation. Photo taken by SRC on August 30, 2021.
Photo 3 Excavation area before second trench box removed. Photo taken facing northwest on August 31, 2021.
Photo 4 Excavation activities. Photo taken facing northwest on August 31, 2021.
Photo 5 Final excavation extent. Photo taken facing north on August 31, 2021.
Photo 6 Final excavation extent. Photo taken facing west on August 31, 2021.
Photo 7 Contaminated material in three-sided building. Photo taken by Insight on August 31, 2021.

Tables

Table 1 Analytical Data Summary

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Figure 1 Site Location
Figure 2 Site Layout
Figure 3 Receptor Survey

Attachments

Attachment A WDNR Hazardous Substance Discharge Notification Form and Site Contact Information
Attachment B Site Investigation Field Sampling and Screening Log
Attachment C ALS Laboratory Report for Confirmation Soil Samples
Attachment D Material Management Documentation

Site Photographs

Photo 1 Oil contamination in excavation. Photo taken by SRC on August 30, 2021.

Photo 2 Oil contamination in excavation. Photo taken by SRC on August 30, 2021.

Photo 3 **Excavation area before second trench box removed. Photo taken facing northwest on August 31, 2021.**

Photo 4 **Excavation activities. Photo taken facing northwest on August 31, 2021.**

Photo 5 Final excavation extent. Photo taken facing north on August 31, 2021.

Photo 6 Final excavation extent. Photo taken facing west on August 31, 2021.

Photo 7 Contaminated material in three-sided building. Photo taken by Insight on August 31, 2021.

Tables

Table 1
Analytical Data Summary
Tank 47 Crude Pipeline

			Location	TK47-B-1	TK47-S-1	TK47-S-2	TK47-S-3	TK47-S-4	TK47-S-5	TK47-S-6	TK47-S-7	TK47-S-8
			Date	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021	8/31/2021
			Data Status	QC Pending	QC Pending	QC Pending	QC Pending	QC Pending	QC Pending	QC Pending	QC Pending	QC Pending
Parameter	Units	Wisconsin Groundwater RCLs, DF=2	Wisconsin Not to Exceed Direct Contact Industrial RCLs									
Effective Date		12/01/2018	12/01/2018									
Exceedance Key		No Exceedances	No Exceedances									
Volatile Organic Compounds												
1,2,4-Trimethylbenzene	mg/kg	1.3787 (1)	219	< 0.037 U	< 0.034 U	< 0.038 U	< 0.039 U	< 0.04 U	< 0.033 U	< 0.035 U	< 0.036 U	< 0.036 U
1,3,5-Trimethylbenzene	mg/kg	1.3787 (1)	182	< 0.059 U	< 0.054 U	< 0.061 U	< 0.061 U	< 0.063 U	< 0.053 U	< 0.056 U	< 0.057 U	< 0.057 U
Benzene	mg/kg	0.0051	7.07	< 0.024 U	< 0.022 U	< 0.025 U	< 0.025 U	< 0.026 U	< 0.022 U	< 0.023 U	< 0.024 U	< 0.024 U
Ethyl benzene	mg/kg	1.57	35.4	< 0.011 U	< 0.0097 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.0096 U	< 0.01 U	< 0.01 U	< 0.01 U
Methyl tertiary butyl ether (MTBE)	mg/kg	0.027	282	< 0.015 U	< 0.013 U	< 0.015 U	< 0.015 U	< 0.016 U	< 0.013 U	< 0.014 U	< 0.014 U	< 0.014 U
Naphthalene	mg/kg	0.6582	24.1	< 0.12 U	< 0.11 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.11 U	< 0.12 U	< 0.12 U	< 0.12 U
Toluene	mg/kg	1.1072	818	< 0.014 U	< 0.013 U	< 0.014 U	< 0.014 U	< 0.015 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.013 U
Xylene, total	mg/kg	3.96	260	< 0.067 U	< 0.061 U	< 0.07 U	< 0.07 U	< 0.072 U	< 0.06 U	< 0.064 U	< 0.065 U	< 0.065 U
Exceedance Count	no unit		0	0	0	0	0	0	0	0	0	0
Hazard Index	no unit		≤ 1.0	0.0013	0.0012	0.0013	0.0013	0.0014	0.0011	0.0012	0.0013	0.0013
Cumulative Cancer Risk	no unit		≤ 1E-0.5	0.000000038	0.000000035	0.000000041	0.000000041	0.000000041	0.000000035	0.000000038	0.000000038	0.000000038

U The analyte was analyzed for, but was not detected.
(1) Representing the criteria for combined Trimethylbenzenes.

Figures

Tank 47

Newton Creek

Nemadji River

Site Location

Approximate SRC Property Boundaries for Contiguous Operations

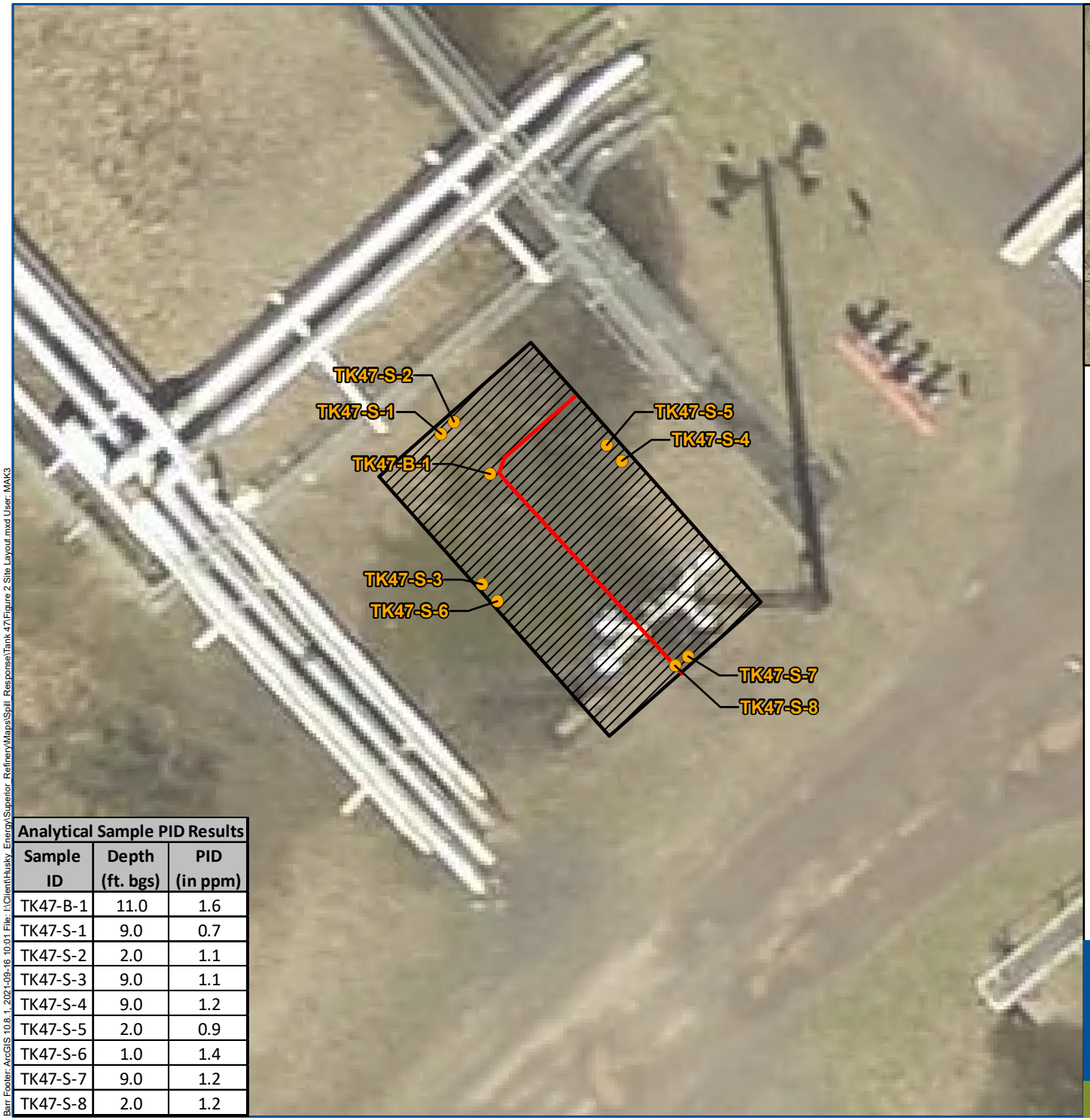
Approximate Fenceline Boundaries for Refining-Related Activities

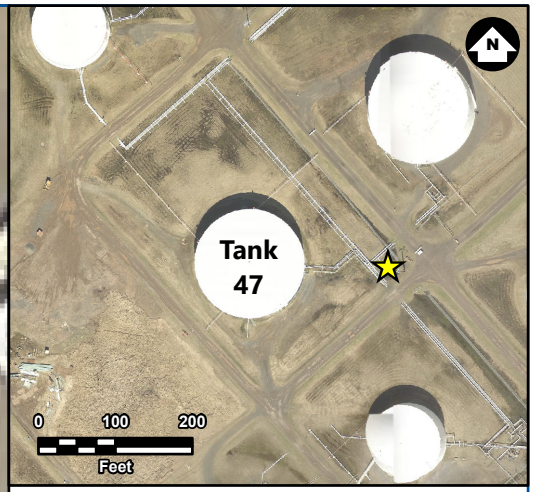
0 750 1,500

Feet

SITE LOCATION
Superior Refining Company LLC (SRC)
Superior, WI

FIGURE 1





Site Location

Analytical Sample Locations

Excavation Extent

Approximate Underground Crude Oil Pipeline Location

N

0 10 20

Feet

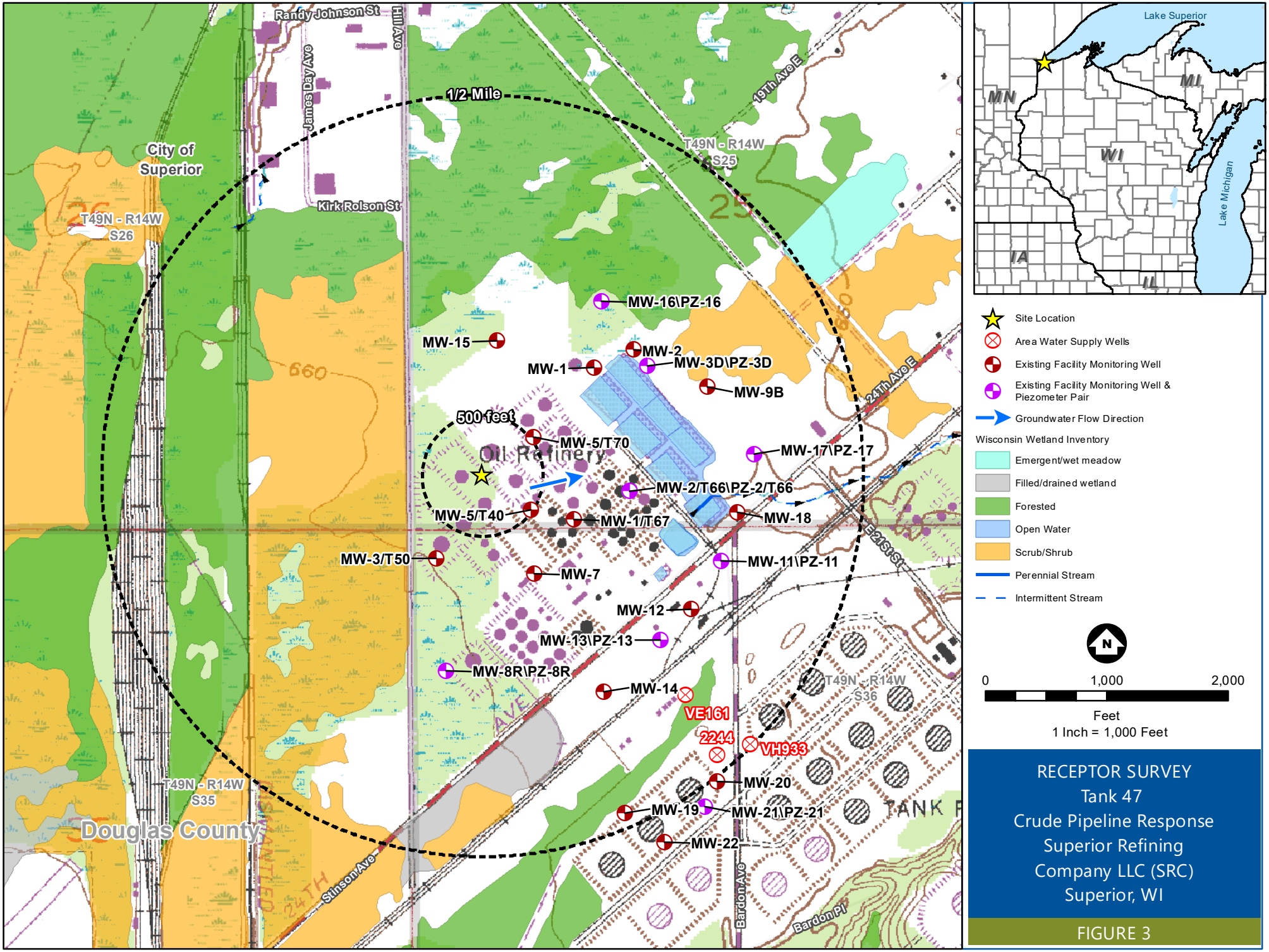
1 Inch = 10 Feet

Douglas County Imagery Circa May, 2019

Analytical Sample PID Results		
Sample ID	Depth (ft. bgs)	PID (in ppm)
TK47-B-1	11.0	1.6
TK47-S-1	9.0	0.7
TK47-S-2	2.0	1.1
TK47-S-3	9.0	1.1
TK47-S-4	9.0	1.2
TK47-S-5	2.0	0.9
TK47-S-6	1.0	1.4
TK47-S-7	9.0	1.2
TK47-S-8	2.0	1.2

SITE LAYOUT
Tank 47 Crude Pipeline Response
Superior Refining Company LLC (SRC)
Superior, WI

FIGURE 2



RECEPTOR SURVEY
Tank 47
Crude Pipeline Response
Superior Refining
Company LLC (SRC)
Superior, WI

FIGURE 3

Barr Footer: ArcGIS 10.8.1, 2021-09-16 16:13 File: I:\Client\Husky_Energy\Superior_Refinery\Maps\Spill_Response\Tank 47\Figure 3 Receptor Survey.mxd User: MAK3

Attachments

Attachment A

WDNR Hazardous Substance Discharge Notification Form

Hazardous Substance Discharge Notification Form - NR 706.05

Superior Refining Company LLC
2407 Stinson Ave., Superior, WI 54880
Phone: (715) 398-3533 Fax: (715) 398-8209

Refinery Map Coordinates: NW1/4, NW1/4, Sect. 36, T 49N, R 14N.

1) Reporting Information

Name:	Matt Turner
Date:	8/30/2021
Phone:	715-969-4873
Position:	Env. Technologist

2) Discharge Information

Date:	8/30/2021
Time:	10:00
Amount Released:	~50 gallons
Duration:	Unknown
Material/Product:	Crude oil, diesel fuel and LEL suppressant mix
Response Time:	Immediate
Specific Location:	In the pipeline excavation in the SE corner of the Tank 47 containment dike
How was spill detected:	Operator checked the excavation for water following recent rains and saw the oil
Cause:	A cold tap was installed on the pipeline but it began to leak sometime after it was installed.

If necessary, continue on back

3) Additional Information

Physical Characteristics:	Black liquid
Chemical Properties:	
Possible Hazards:	
Immediate Corrective Action/Clean-up:	Free liquid was vacuumed up; pan was put under the leaking valve until pipeline is deinventoried
People/Companies Performing the Action:	Ops, shift foreman, pipeline project management, WCS
Speed and Movement of Discharge (if any):	N/A
Actual/Potential Impacts to Human Health(if any):	N/A
Actual/Potential Impacts to Environment(if any):	Reportable spill immediately cleaned up
Weather Conditions (i.e. precipitation, wind speed and direction):	Partly cloudy, 75 degrees F, wind NW12
Agencies On-scene During Spill (if any):	None
Further action needed (if any):	Cleanup affected soil once pipeline has been emptied
Amount reaching Navigable Waters:	None
Total Oil Storage Capacity of Tanks/Lines Material was Discharged From:	TBD
Adequate Secondary Containment:	Yes
Steps taken to Reduce Possibility of Recurrence:	Review cold tap procedure
Enforcement Actions (if any):	N/A
Effectiveness of Monitoring Equipment (if any):	N/A

Original: Refinery Manager CC: Operations Manager, Environmental Manager

Tank 47 Release
Site and Facility Contact Information

Site Information:

WDNR SERTS Number: 20210830NO16-1
Facility Identification Number: 816009590
Superior Refining Company LLC
2407 Stinson Avenue
Superior, Wisconsin
Douglas County, Wisconsin
SW ¼, SW ¼ of Section 25, T49N, R14W
Latitude / Longitude: 46.69276 / 92.07450
WTM91 Coordinates: X: 361386, Y: 693110

Responsible Party:

Superior Refining Company LLC
Attn: Matt Turner, Environmental Technologist
2407 Stinson Avenue
Superior, WI 54880
Phone: (403) 298-6050
Email: matthew.turner@cenovous.com

Environmental Consultant:

Barr Engineering Co.
Attn: Lynette Carney, Project Manager
325 South Lake Avenue, Suite 700
Duluth, MN 55802
Phone: (218) 529-7141
Email: lcarney@barr.com

Attachment B

Site Investigation Field Sampling and Screening Log

FIELD SAMPLING AND SCREENING LOG

Client: SRC Date: 8/31/21

Location: Superior WI, TK47 Sampler: Tim Cyr, Gareth Egeland

Sample Nomenclature *(Location - sample type - #)*:

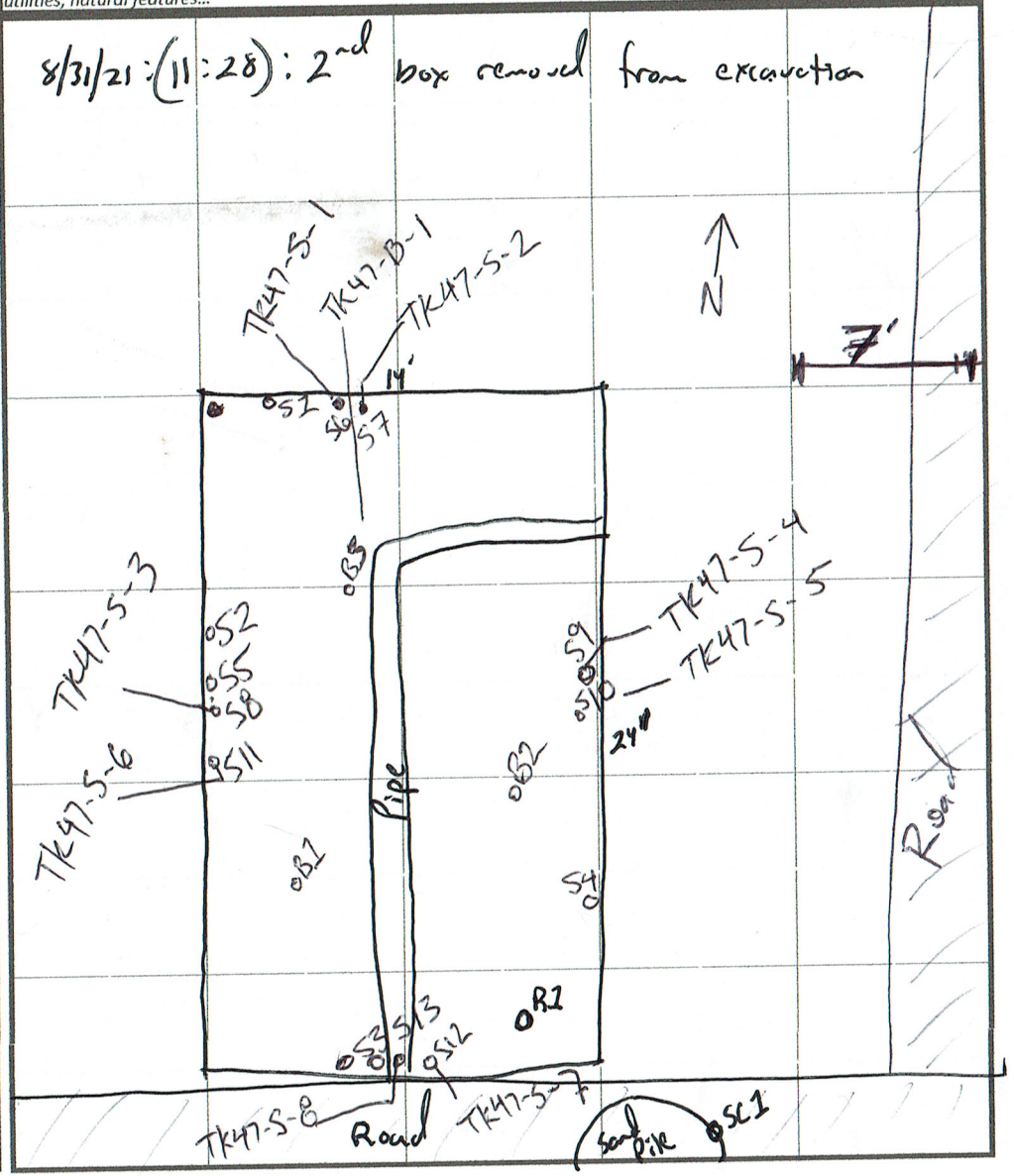
R = Removed **S** = Sidewall **B** = Bottom **Stockpile** = Stockpile

Sample ID	Depth (FT)	Time (military)	Soil Type (USCS)	Color/ Discolor	Odor/ Sheen	Headspace Reading (ppm)
Example: Stockpile-1	*4*	*16:30*	*CL*	*Reddish brown*	*Petroleum/ Rainbow*	*275*
Sand Clean1	6"	11:47	Sand	Brown	none	0.2
R1	8'8"	12:53	Gravel/Sd	Br/none	none	74.2
S1	9'	14:08	CH	Brown/None	None/None	0.7
S2 Removed	9'	14:16	CH	Brown/None	Slight/None	43.5
S3	3'	14:18	CH	Brown/None	None/None	2.8
S4	5'	14:21	CH	Brown/None	None/None	0.9
~~B1~~ B1	11'	14:23	CH	Brown/None	None/None	0.9
B2	11'	14:25	CH	Brown/None	None/None	1.0
S5	8'8"	14:29	CH	Brown/None	None/None	1.2
B3	11'	16:20	CH	Brown/None	None/None	1.6
S6	9'	16:25	CH	Brown/None	None/None	0.7
S7	2'	16:30	CH	Brown/None	None/None	1.1
S8	9'	16:33	CH	Brown/None	None/None	1.1
S9	9'	16:37	CH	Brown/None	None/None	1.2
S10	2'	16:41	CH	Brown/None	None/None	0.9
S11	1'	16:44	CH	Brown/None	None/None	1.4
S12	9'	16:48	CH	Brown/None	None/None	1.2
S13	2'	16:52	CH	Brown/None	None/None	1.2

Equipment: Photoionization detector with 10.6 eV bulb

	Calibration	Bump Test 1	Bump Test 2
Time	1100		
Zero reading (ppm)	0.0		
Span reading (ppm)	100.0		
Background (ppm)	0.6		

Site Sketch: north arrow, scale, excavation extents & depths, impacted areas, sample locations ,borings, wells, structures, utilities, natural features...



Attachment C

ALS Laboratory Report for Confirmation Soil Samples

07-Sep-2021

Lynette Carney
Barr Engineering Company
4300 Market Pointe Drive
Suite 200
Minneapolis, MN 55435

Re: **SRC TK47 (49161468.02 300 301)** Work Order: **21090215**

Dear Lynette,

ALS Environmental received 9 samples on 02-Sep-2021 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 18.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Jodi Blouw

Electronically approved by: Jodi Blouw

Jodi Blouw

ALS Group, USA

Date: 07-Sep-21

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Work Order: **21090215**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
21090215-01	TK47-B-1	Soil		8/31/2021 16:20	9/2/2021 09:00	☐
21090215-02	TK47-S-1	Soil		8/31/2021 16:25	9/2/2021 09:00	☐
21090215-03	TK47-S-2	Soil		8/31/2021 16:30	9/2/2021 09:00	☐
21090215-04	TK47-S-3	Soil		8/31/2021 16:33	9/2/2021 09:00	☐
21090215-05	TK47-S-4	Soil		8/31/2021 16:37	9/2/2021 09:00	☐
21090215-06	TK47-S-5	Soil		8/31/2021 16:41	9/2/2021 09:00	☐
21090215-07	TK47-S-6	Soil		8/31/2021 16:44	9/2/2021 09:00	☐
21090215-08	TK47-S-7	Soil		8/31/2021 16:48	9/2/2021 09:00	☐
21090215-09	TK47-S-8	Soil		8/31/2021 16:52	9/2/2021 09:00	☐

ALS Group, USA

Date: 07-Sep-21

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
WorkOrder: **21090215**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

Client:	Barr Engineering Company
Project:	SRC TK47 (49161468.02 300 301)
Work Order:	21090215

Case Narrative

Samples for the above noted Work Order were received on 09/02/2021. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Volatile Organics:
No deviations or anomalies were noted.

Wet Chemistry:
No deviations or anomalies were noted.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-B-1
Collection Date: 8/31/2021 04:20 PM

Work Order: 21090215
Lab ID: 21090215-01
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		37	120	µg/Kg-dry	1	9/4/2021 07:51
1,3,5-Trimethylbenzene	U		59	200	µg/Kg-dry	1	9/4/2021 07:51
Benzene	U		24	81	µg/Kg-dry	1	9/4/2021 07:51
Ethylbenzene	U		11	36	µg/Kg-dry	1	9/4/2021 07:51
Methyl tert-butyl ether	U		15	49	µg/Kg-dry	1	9/4/2021 07:51
Naphthalene	U		120	400	µg/Kg-dry	1	9/4/2021 07:51
Toluene	U		14	46	µg/Kg-dry	1	9/4/2021 07:51
Xylenes, Total	U		67	220	µg/Kg-dry	1	9/4/2021 07:51
Surr: 1,2-Dichloroethane-d4	*100*			*70-130*	*%REC*	1	9/4/2021 07:51
Surr: 4-Bromofluorobenzene	*102*			*70-130*	*%REC*	1	9/4/2021 07:51
Surr: Dibromofluoromethane	*97.4*			*70-130*	*%REC*	1	9/4/2021 07:51
Surr: Toluene-d8	*99.2*			*70-130*	*%REC*	1	9/4/2021 07:51
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**31**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-1
Collection Date: 8/31/2021 04:25 PM

Work Order: 21090215
Lab ID: 21090215-02
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		34	110	µg/Kg-dry	1	9/4/2021 08:10
1,3,5-Trimethylbenzene	U		54	180	µg/Kg-dry	1	9/4/2021 08:10
Benzene	U		22	74	µg/Kg-dry	1	9/4/2021 08:10
Ethylbenzene	U		9.7	32	µg/Kg-dry	1	9/4/2021 08:10
Methyl tert-butyl ether	U		13	44	µg/Kg-dry	1	9/4/2021 08:10
Naphthalene	U		110	370	µg/Kg-dry	1	9/4/2021 08:10
Toluene	U		13	42	µg/Kg-dry	1	9/4/2021 08:10
Xylenes, Total	U		61	200	µg/Kg-dry	1	9/4/2021 08:10
Surr: 1,2-Dichloroethane-d4	*98.2*			*70-130*	*%REC*	1	9/4/2021 08:10
Surr: 4-Bromofluorobenzene	*102*			*70-130*	*%REC*	1	9/4/2021 08:10
Surr: Dibromofluoromethane	*97.0*			*70-130*	*%REC*	1	9/4/2021 08:10
Surr: Toluene-d8	*97.5*			*70-130*	*%REC*	1	9/4/2021 08:10
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**26**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-2
Collection Date: 8/31/2021 04:30 PM

Work Order: 21090215
Lab ID: 21090215-03
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		38	130	µg/Kg-dry	1	9/4/2021 08:30
1,3,5-Trimethylbenzene	U		61	200	µg/Kg-dry	1	9/4/2021 08:30
Benzene	U		25	85	µg/Kg-dry	1	9/4/2021 08:30
Ethylbenzene	U		11	37	µg/Kg-dry	1	9/4/2021 08:30
Methyl tert-butyl ether	U		15	50	µg/Kg-dry	1	9/4/2021 08:30
Naphthalene	U		130	420	µg/Kg-dry	1	9/4/2021 08:30
Toluene	U		14	48	µg/Kg-dry	1	9/4/2021 08:30
Xylenes, Total	U		70	230	µg/Kg-dry	1	9/4/2021 08:30
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	9/4/2021 08:30
Surr: 4-Bromofluorobenzene	*104*			*70-130*	*%REC*	1	9/4/2021 08:30
Surr: Dibromofluoromethane	*99.1*			*70-130*	*%REC*	1	9/4/2021 08:30
Surr: Toluene-d8	*101*			*70-130*	*%REC*	1	9/4/2021 08:30
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**26**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-3
Collection Date: 8/31/2021 04:33 PM

Work Order: 21090215
Lab ID: 21090215-04
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		39	130	µg/Kg-dry	1	9/4/2021 08:49
1,3,5-Trimethylbenzene	U		61	200	µg/Kg-dry	1	9/4/2021 08:49
Benzene	U		25	85	µg/Kg-dry	1	9/4/2021 08:49
Ethylbenzene	U		11	37	µg/Kg-dry	1	9/4/2021 08:49
Methyl tert-butyl ether	U		15	51	µg/Kg-dry	1	9/4/2021 08:49
Naphthalene	U		130	420	µg/Kg-dry	1	9/4/2021 08:49
Toluene	U		14	48	µg/Kg-dry	1	9/4/2021 08:49
Xylenes, Total	U		70	230	µg/Kg-dry	1	9/4/2021 08:49
Surr: 1,2-Dichloroethane-d4	*99.3*			*70-130*	*%REC*	1	9/4/2021 08:49
Surr: 4-Bromofluorobenzene	*103*			*70-130*	*%REC*	1	9/4/2021 08:49
Surr: Dibromofluoromethane	*99.7*			*70-130*	*%REC*	1	9/4/2021 08:49
Surr: Toluene-d8	*99.2*			*70-130*	*%REC*	1	9/4/2021 08:49
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**28**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-4
Collection Date: 8/31/2021 04:37 PM

Work Order: 21090215
Lab ID: 21090215-05
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		40	130	µg/Kg-dry	1	9/4/2021 09:09
1,3,5-Trimethylbenzene	U		63	210	µg/Kg-dry	1	9/4/2021 09:09
Benzene	U		26	88	µg/Kg-dry	1	9/4/2021 09:09
Ethylbenzene	U		11	38	µg/Kg-dry	1	9/4/2021 09:09
Methyl tert-butyl ether	U		16	52	µg/Kg-dry	1	9/4/2021 09:09
Naphthalene	U		130	430	µg/Kg-dry	1	9/4/2021 09:09
Toluene	U		15	49	µg/Kg-dry	1	9/4/2021 09:09
Xylenes, Total	U		72	240	µg/Kg-dry	1	9/4/2021 09:09
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	9/4/2021 09:09
Surr: 4-Bromofluorobenzene	*105*			*70-130*	*%REC*	1	9/4/2021 09:09
Surr: Dibromofluoromethane	*97.7*			*70-130*	*%REC*	1	9/4/2021 09:09
Surr: Toluene-d8	*98.4*			*70-130*	*%REC*	1	9/4/2021 09:09
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**30**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-5
Collection Date: 8/31/2021 04:41 PM

Work Order: 21090215
Lab ID: 21090215-06
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		33	110	µg/Kg-dry	1	9/4/2021 09:28
1,3,5-Trimethylbenzene	U		53	180	µg/Kg-dry	1	9/4/2021 09:28
Benzene	U		22	73	µg/Kg-dry	1	9/4/2021 09:28
Ethylbenzene	U		9.6	32	µg/Kg-dry	1	9/4/2021 09:28
Methyl tert-butyl ether	U		13	44	µg/Kg-dry	1	9/4/2021 09:28
Naphthalene	U		110	360	µg/Kg-dry	1	9/4/2021 09:28
Toluene	U		12	41	µg/Kg-dry	1	9/4/2021 09:28
Xylenes, Total	U		60	200	µg/Kg-dry	1	9/4/2021 09:28
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	9/4/2021 09:28
Surr: 4-Bromofluorobenzene	*103*			*70-130*	*%REC*	1	9/4/2021 09:28
Surr: Dibromofluoromethane	*102*			*70-130*	*%REC*	1	9/4/2021 09:28
Surr: Toluene-d8	*98.8*			*70-130*	*%REC*	1	9/4/2021 09:28
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**25**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-6
Collection Date: 8/31/2021 04:44 PM

Work Order: 21090215
Lab ID: 21090215-07
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		35	120	µg/Kg-dry	1	9/4/2021 09:48
1,3,5-Trimethylbenzene	U		56	190	µg/Kg-dry	1	9/4/2021 09:48
Benzene	U		23	78	µg/Kg-dry	1	9/4/2021 09:48
Ethylbenzene	U		10	34	µg/Kg-dry	1	9/4/2021 09:48
Methyl tert-butyl ether	U		14	46	µg/Kg-dry	1	9/4/2021 09:48
Naphthalene	U		120	390	µg/Kg-dry	1	9/4/2021 09:48
Toluene	U		13	44	µg/Kg-dry	1	9/4/2021 09:48
Xylenes, Total	U		64	210	µg/Kg-dry	1	9/4/2021 09:48
Surr: 1,2-Dichloroethane-d4	*103*			*70-130*	*%REC*	1	9/4/2021 09:48
Surr: 4-Bromofluorobenzene	*103*			*70-130*	*%REC*	1	9/4/2021 09:48
Surr: Dibromofluoromethane	*101*			*70-130*	*%REC*	1	9/4/2021 09:48
Surr: Toluene-d8	*98.8*			*70-130*	*%REC*	1	9/4/2021 09:48
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**24**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-7
Collection Date: 8/31/2021 04:48 PM

Work Order: 21090215
Lab ID: 21090215-08
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		36	120	µg/Kg-dry	1	9/4/2021 10:08
1,3,5-Trimethylbenzene	U		57	190	µg/Kg-dry	1	9/4/2021 10:08
Benzene	U		24	79	µg/Kg-dry	1	9/4/2021 10:08
Ethylbenzene	U		10	35	µg/Kg-dry	1	9/4/2021 10:08
Methyl tert-butyl ether	U		14	47	µg/Kg-dry	1	9/4/2021 10:08
Naphthalene	U		120	390	µg/Kg-dry	1	9/4/2021 10:08
Toluene	U		13	45	µg/Kg-dry	1	9/4/2021 10:08
Xylenes, Total	U		65	220	µg/Kg-dry	1	9/4/2021 10:08
Surr: 1,2-Dichloroethane-d4	*99.7*			*70-130*	*%REC*	1	9/4/2021 10:08
Surr: 4-Bromofluorobenzene	*105*			*70-130*	*%REC*	1	9/4/2021 10:08
Surr: Dibromofluoromethane	*100*			*70-130*	*%REC*	1	9/4/2021 10:08
Surr: Toluene-d8	*100*			*70-130*	*%REC*	1	9/4/2021 10:08
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**23**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *07-Sep-21*

Client: Barr Engineering Company
Project: SRC TK47 (49161468.02 300 301)
Sample ID: TK47-S-8
Collection Date: 8/31/2021 04:52 PM

Work Order: 21090215
Lab ID: 21090215-09
Matrix: SOIL

Analyses	Result	Qual	MDL	PQL	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS		Method: **SW8260C**					Analyst: **HJ**
1,2,4-Trimethylbenzene	U		36	120	µg/Kg-dry	1	9/4/2021 10:27
1,3,5-Trimethylbenzene	U		57	190	µg/Kg-dry	1	9/4/2021 10:27
Benzene	U		24	79	µg/Kg-dry	1	9/4/2021 10:27
Ethylbenzene	U		10	34	µg/Kg-dry	1	9/4/2021 10:27
Methyl tert-butyl ether	U		14	47	µg/Kg-dry	1	9/4/2021 10:27
Naphthalene	U		120	390	µg/Kg-dry	1	9/4/2021 10:27
Toluene	U		13	44	µg/Kg-dry	1	9/4/2021 10:27
Xylenes, Total	U		65	220	µg/Kg-dry	1	9/4/2021 10:27
Surr: 1,2-Dichloroethane-d4	*101*			*70-130*	*%REC*	1	9/4/2021 10:27
Surr: 4-Bromofluorobenzene	*103*			*70-130*	*%REC*	1	9/4/2021 10:27
Surr: Dibromofluoromethane	*99.9*			*70-130*	*%REC*	1	9/4/2021 10:27
Surr: Toluene-d8	*98.6*			*70-130*	*%REC*	1	9/4/2021 10:27
MOISTURE		Method: **SW3550C**					Analyst: **ALG**
Moisture	**23**		**0.10**	**0.10**	**% of sample**	1	9/3/2021 11:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Batch ID: **183138w** Instrument ID **VMS8** Method: **SW8260C**

MBLK Sample ID: **MBLK-183138-183138w** Units: **µg/Kg-dry** Analysis Date: **9/4/2021 07:31 AM**

Client ID: Run ID: **VMS8_210903B** SeqNo: **7724617** Prep Date: **9/3/2021** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	U	22	73								
1,3,5-Trimethylbenzene	U	35	120								
Benzene	U	15	48								
Ethylbenzene	U	6.3	21								
Methyl tert-butyl ether	U	8.6	29								
Naphthalene	U	72	240								
Toluene	U	8.2	27								
Xylenes, Total	U	40	130								
Surr: 1,2-Dichloroethane-d4	*1012*	0	0	*1000*	0	*101*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1020*	0	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*979.5*	0	0	*1000*	0	*98*	*70-130*	0			
Surr: Toluene-d8	*984.5*	0	0	*1000*	0	*98.4*	*70-130*	0			

LCS Sample ID: **LCS-183138-183138w** Units: **µg/Kg-dry** Analysis Date: **9/4/2021 06:33 AM**

Client ID: Run ID: **VMS8_210903B** SeqNo: **7724615** Prep Date: **9/3/2021** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	811	22	73	1000	0	81.1	65-135	0			
1,3,5-Trimethylbenzene	862.5	35	120	1000	0	86.2	65-135	0			
Benzene	899.5	15	48	1000	0	90	75-125	0			
Ethylbenzene	855	6.3	21	1000	0	85.5	75-125	0			
Methyl tert-butyl ether	767.5	8.6	29	1000	0	76.8	75-125	0			
Naphthalene	826.5	72	240	1000	0	82.6	40-140	0			
Toluene	895	8.2	27	1000	0	89.5	70-125	0			
Xylenes, Total	2582	40	130	3000	0	86.1	75-125	0			
Surr: 1,2-Dichloroethane-d4	*987*	0	0	*1000*	0	*98.7*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1016*	0	0	*1000*	0	*102*	*70-130*	0			
Surr: Dibromofluoromethane	*999*	0	0	*1000*	0	*99.9*	*70-130*	0			
Surr: Toluene-d8	*1010*	0	0	*1000*	0	*101*	*70-130*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Barr Engineering Company
Work Order: 21090215
Project: SRC TK47 (49161468.02 300 301)

QC BATCH REPORT

Batch ID: **183138w** Instrument ID **VMS8** Method: **SW8260C**

MS Sample ID: **21090215-01A MS** Units: **µg/Kg-dry** Analysis Date: **9/4/2021 11:06 AM**
Client ID: **TK47-B-1** Run ID: **VMS8_210903B** SeqNo: **7724628** Prep Date: **9/3/2021** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	1744	42	140	1899	0	91.9	65-135	0			
1,3,5-Trimethylbenzene	1821	66	220	1899	0	95.9	65-135	0			
Benzene	1937	28	92	1899	0	102	75-125	0			
Ethylbenzene	1794	12	40	1899	0	94.5	75-125	0			
Methyl tert-butyl ether	1902	16	55	1899	0	100	75-125	0			
Naphthalene	1679	140	460	1899	0	88.5	40-140	0			
Toluene	1831	16	52	1899	0	96.4	70-125	0			
Xylenes, Total	5382	76	250	5696	0	94.5	75-125	0			
Surr: 1,2-Dichloroethane-d4	*1876*	0	0	*1899*	0	*98.8*	*70-130*	0			
Surr: 4-Bromofluorobenzene	*1915*	0	0	*1899*	0	*101*	*70-130*	0			
Surr: Dibromofluoromethane	*1893*	0	0	*1899*	0	*99.7*	*70-130*	0			
Surr: Toluene-d8	*1854*	0	0	*1899*	0	*97.6*	*70-130*	0			

MSD Sample ID: **21090215-01A MSD** Units: **µg/Kg-dry** Analysis Date: **9/4/2021 11:26 AM**
Client ID: **TK47-B-1** Run ID: **VMS8_210903B** SeqNo: **7724629** Prep Date: **9/3/2021** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	1693	42	140	1899	0	89.2	65-135	1744	2.98	30	
1,3,5-Trimethylbenzene	1786	66	220	1899	0	94.1	65-135	1821	1.95	30	
Benzene	1872	28	92	1899	0	98.6	75-125	1937	3.39	30	
Ethylbenzene	1746	12	40	1899	0	92	75-125	1794	2.74	30	
Methyl tert-butyl ether	1800	16	55	1899	0	94.8	75-125	1902	5.54	30	
Naphthalene	1694	140	460	1899	0	89.3	40-140	1679	0.9	30	
Toluene	1776	16	52	1899	0	93.5	70-125	1831	3.05	30	
Xylenes, Total	5249	76	250	5696	0	92.2	75-125	5382	2.5	30	
Surr: 1,2-Dichloroethane-d4	*1872*	0	0	*1899*	0	*98.6*	*70-130*	1876	*0.203*	*30*	
Surr: 4-Bromofluorobenzene	*1878*	0	0	*1899*	0	*98.9*	*70-130*	1915	*1.95*	*30*	
Surr: Dibromofluoromethane	*1893*	0	0	*1899*	0	*99.7*	*70-130*	1893	*0*	*30*	
Surr: Toluene-d8	*1843*	0	0	*1899*	0	*97.1*	*70-130*	1854	*0.565*	*30*	

The following samples were analyzed in this batch:

21090215-01A	21090215-02A	21090215-03A
21090215-04A	21090215-05A	21090215-06A
21090215-07A	21090215-08A	21090215-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Barr Engineering Company
Work Order: 21090215
Project: SRC TK47 (49161468.02 300 301)

QC BATCH REPORT

Batch ID: **R326061** Instrument ID **MOIST** Method: **SW3550C**

MBLK Sample ID: **WBLKS-R326061** Units: **% of sample** Analysis Date: **9/3/2021 11:33 AM**
Client ID: Run ID: **MOIST_210903A** SeqNo: **7723407** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.1	0.10								

LCS Sample ID: **LCS-R326061** Units: **% of sample** Analysis Date: **9/3/2021 11:33 AM**
Client ID: Run ID: **MOIST_210903A** SeqNo: **7723406** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	99.97	0.1	0.10	100	0	100	98-102	0			

DUP Sample ID: **21082361-01A DUP** Units: **% of sample** Analysis Date: **9/3/2021 11:33 AM**
Client ID: Run ID: **MOIST_210903A** SeqNo: **7723385** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	40.78	0.1	0.10	0	0	0	0-0	40.6	0.442	10	

DUP Sample ID: **21082612-01A DUP** Units: **% of sample** Analysis Date: **9/3/2021 11:33 AM**
Client ID: Run ID: **MOIST_210903A** SeqNo: **7723388** Prep Date: DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	17.25	0.1	0.10	0	0	0	0-0	16.99	1.52	10	

The following samples were analyzed in this batch:

21090215-01B	21090215-02B	21090215-03B
21090215-04B	21090215-05B	21090215-06B
21090215-07B	21090215-08B	21090215-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

21090215

Barr Engineering Co. Chain of Custody

Sample Origination State
☐ CO ☐ MI ☐ MN ☐ MO ☐ ND ☐ TX ☐ UT ☒ WI ☐ Other: _____

COC Number: Nº 589644
COC 1 of 1

REPORT TO	INVOICE TO
Company: Barr Engineering Co.	Company: Barr
Address: 325 S. Lake Ave.	Address:
Address: Duluth, MN 55802	Address:
Name: Lynette Carney	Name:
email: lcarney@barr.com	email:
Copy to: BarrDM@barr.com	P.O. –
Project Name: SRC TK47	Barr Project No: 4916/1468.02 300 301

Matrix Code:
GW = Groundwater
SW = Surface Water
WW = Waste Water
DW = Drinking Water
S = Soil/Solid
SD = Sediment
O = Other

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
I = Ascorbic Acid
J = Zn Acetate
K = Other

Location	Sample Depth Start	Stop	Unit (m./ft. or in.)	Collection Date (mm/dd/yyyy)	Collection Time (hh:mm)	Matrix Code	Perform MS/MSD Y / N	Total Number Of Containers	Analysis Requested: Water	Soil: PVOC + Naphthalene	Soil: % Solids	Preservative Code	Field Filtered Y/N	
												F	A	
												N	N	
1. TK47-B-1	11	11	ft	08/31/2021	1620	S	N	3				X	X	ASAP TAT
2. TK47-S-1	9	9	ft		1625	S	N	3				X	X	
3. TK47-S-2	2	2	ft		1630	S	N	3				X	X	
4. TK47-S-3	9	9	ft		1633	S	N	3				X	X	
5. TK47-S-4	9	9	ft		1637	S	N	3				X	X	
6. TK47-S-5	2	2	ft		1641	S	N	3				X	X	
7. TK47-S-6	1	1	ft		1644	S	N	3				X	X	
8. TK47-S-7	9	9	ft		1648	S	N	3				X	X	
9. TK47-S-8	2	2	ft		1652	S	N	3				X	X	
10.														

BARR USE ONLY
Sampled by: KMJ3 / GE
Barr Proj. Manager: LMC
Barr DQ Manager: JET
Lab Name: ALS KMJ3
Lab Location: ~~Green Bay WI~~ Holland MI

Relinquished by: [signature] On Ice? (Y) N Date 9/1/2021 Time 1515 Received by: FedEx Date Time
Relinquished by: FedEx On Ice? (Y) N Date 9/2/21 Time 0900 Received by: [signature] Date Time

Samples Shipped VIA: ☐ Ground Courier ☐ Air Carrier ☐ Sampler ☐ Other: _____
Air Bill Number: 4.1°C 1F3
Lab WO: Temperature on Receipt (°C): Custody Seal Intact? ☐ Y ☐ N ☐ None

Requested Due Date:
☐ Standard Turn Around Time
☒ Rush ASAP TAT (mm/dd/yyyy)

Distribution - White-Original: Accompanies Shipment to Laboratory; **Yellow Copy:** Include in Field Documents; **Scan and email:** a copy to BarrDM@barr.com for tracking and filing procedures

H:\RLG\STDFORMS\Chain of Custody Form 2015 RLG Rev. 01/30/2020

ALS Group, USA

Sample Receipt Checklist

Client Name: **BARRENG-MN** Date/Time Received: **02-Sep-21 09:00**

Work Order: **21090215** Received by: **KRW**

Checklist completed by Keith Wierenga (eSignature) 02-Sep-21 (Date) Reviewed by: Jodi Blouw (eSignature) 02-Sep-21 (Date)

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.1/5.1 C	IR3	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	9/2/2021 1:44:13 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Attachment D

Material Management Documentation

Print Date: 9/7/2021

Start Date: 9/3/2021 Stop Date: 9/3/2021

Shamrock Landfill Tonnage Report

9/3/21 19-0020-02

BILL TO ACCOUNT

2708 LAKEHEAD CONSTRUCTORS

HUSS1

Husky Energy/Superior Refining

2407 Stinson Ave

Superior, WI 54880

TICKET	Manifest	DATE	Waste Stream	Waste Name	TONS
78821	1655	9/3/21	19-0020-02	Petroleum Impacted Soil	14.87
78851	1656	9/3/21	19-0020-02	Petroleum Impacted Soil	15.72
78879	1657	9/3/21	19-0020-02	Petroleum Impacted Soil	14.71
	# of Loads: 3			**SUBTOTAL FOR Waste Stream**	**45.30**
				GRAND TOTALS	**45.30**

Shamrock Landfill
761 Minnesota 45
Cloquet, MN 55720

INBOUND CHARGE

SITE	TICKET	GRID	WEIGHMASTER
01	00078879	LANDFILL	ALEXUS P

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
09/03/21	09/03/21	14:02	14:02	K1	19-0020-02

REFERENCE	ORIGIN
19-0020-02	VIN: RB31867-WI-5AXLES

002708 LAKEHEAD CONSTRUCTORS INC
3801 WINTER ST
SUPERIOR WI 54880-5560

Scale 1 Gross Wt.	57720 LB
Stored Tare Wt.	28300 LB
Net Weight	29420 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
14.71	TON	Industrial/ton				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

Generator: HUSKY ENERGY/SUPERIOR REFINING
Address: 2407 STINSON AVE
City/ST: SUPERIOR, WI 54880
Manifest: 1657

SKB-WCI 4410

SIGNATURE _____

Shamrock Landfill
761 Minnesota 45
Cloquet, MN 55720

INBOUND CHARGE

SITE	TICKET	GRID	WEIGHMASTER
01	00078879	LANDFILL	ALEXUS P

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
09/03/21	09/03/21	14:02	14:02	K1	19-0020-02

REFERENCE	ORIGIN
19-0020-02	VIN: RB31867-WI-5AXLES

002708 LAKEHEAD CONSTRUCTORS INC
3801 WINTER ST
SUPERIOR WI 54880-5560

Scale 1 Gross Wt.	57720 LB
Stored Tare Wt.	28300 LB
Net Weight	29420 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
14.71	TON	Industrial/ton				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

Generator: HUSKY ENERGY/SUPERIOR REFINING
Address: 2407 STINSON AVE
City/ST: SUPERIOR, WI 54880
Manifest: 1657

SKB-WCI 4410

SIGNATURE _____

SKB ENVIRONMENTAL

Non Hazardous Industrial Waste

Shamrock Landfill

1657

Shipping Manifest

1. Generator's US EPA ID No. *(if any)*

2. Page 1 of page(s)

GENERATOR

3. Generator's Name and Facility Address
Husky Energy/Superior Refining Co
2407 Stinson Ave
Superior, WI 54880

Mailing Address
Husky Energy/Superior Refining Co
2407 Stinson Ave
Superior, WI 54880

4. Generator's Phone: (715) 817-6621 Fax:

5. Transporter 1 Company Name
Joe Kimmes Const. KI

6. Transporter 2 Company Name

Phone:

7. Designated Facility Name and Site Address
Shamrock Environmental, LLC
761 MN Highway 45
Cloquet, MN 55720
Phone: 218-878-0112

8. U.S. DOT Description (including Proper Shipping Name)	9. Containers No.	9. Containers Type	10. Total Quantity	11. Unit Wt/Vol	12. Waste Profile Sheet#
a. Non Hazardous Industrial Waste (PETROLEUM IMPACTED SOIL)					
b.					
c.					
d.					

13. Additional Descriptions for Materials Listed Above (indicate waste stream Approval # below)
a. CL CL19-0020-02 PETROLEUM IMPACTED SOIL
b. CL
c. CL
d. CL

14. Special Handling Procedures for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact: Eric Gruber 507-351-4116

Office Use Only
Load # 78879

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Printed/Typed Name: David Mayala | Signature: David Mayala | Month | Day | Year

TRANSPORTER

17. Transporter 1 Acknowledged of Receipt of Materials

Printed/Typed Name: Dustin Birkholz | Signature | Month: 9 | Day: 3 | Year: 21

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this Manifest except as noted in item 19.

Printed/Typed Name: Janet Balduc or Alexus Phillip | Signature | Month | Day: 03 | Year: 21

White - Return to Generator

Canary - Facility Copy

Pink - Transporter

Goldenrod - Generator Copy

CL19-0020-02

Shamrock Landfill
761 Minnesota 45
Cloquet, MN 55720

INBOUND CHARGE

002708 LAKEHEAD CONSTRUCTORS INC
3801 WINTER ST
SUPERIOR WI 54880-5560

SITE	TICKET	GRID	WEIGHMASTER
01	00078851	LANDFILL	ALEXUS P

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
09/03/21	09/03/21	11:34	11:34	K1	19-0020-02

REFERENCE	ORIGIN
19-0020-02	VIN: RB31867-WI-5AXLES

Scale 1 Gross Wt. 59740 LB
Stored Tare Wt. 28300 LB
Net Weight 31440 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
15.72	TON	Industrial/ton				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

Generator: HUSKY ENERGY/SUPERIOR REFINING
Address: 2407 STINSON AVE
City/ST: SUPERIOR, WI 54880
Manifest: 1656

SKB-WCI 4410

SIGNATURE _____

Shamrock Landfill
761 Minnesota 45
Cloquet, MN 55720

INBOUND CHARGE

002708 LAKEHEAD CONSTRUCTORS INC
3801 WINTER ST
SUPERIOR WI 54880-5560

SITE	TICKET	GRID	WEIGHMASTER
01	00078851	LANDFILL	ALEXUS P

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
09/03/21	09/03/21	11:34	11:34	K1	19-0020-02

REFERENCE	ORIGIN
19-0020-02	VIN: RB31867-WI-5AXLES

Scale 1 Gross Wt. 59740 LB
Stored Tare Wt. 28300 LB
Net Weight 31440 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
15.72	TON	Industrial/ton				

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

Generator: HUSKY ENERGY/SUPERIOR REFINING
Address: 2407 STINSON AVE
City/ST: SUPERIOR, WI 54880
Manifest: 1656

SKB-WCI 4410

SIGNATURE _____

SKB ENVIRONMENTAL

Non Hazardous Industrial Waste

Shamrock Landfill

1656

Shipping Manifest

1. Generator's US EPA ID No. *(if any)*

2. Page 1 of page(s)

GENERATOR

3. Generator's Name and Facility Address
Husky Energy/Superior Refining Co
2407 Stinson Ave
Superior, WI 54880

Mailing Address
Husky Energy/Superior Refining Co
2407 Stinson Ave
Superior, WI 54880

4. Generator's Phone: (715) 817-6621 Fax:

5. Transporter 1 Company Name
Joe Kimmes Const. K1

6. Transporter 2 Company Name

Phone:

7. Designated Facility Name and Site Address
Shamrock Environmental, LLC
761 MN Highway 45
Cloquet, MN 55720 Phone: 218-878-0112

8. U.S. DOT Description (including Proper Shipping Name)	9. Containers No.	9. Containers Type	10. Total Quantity	11. Unit Wt/Vol	12. Waste Profile Sheet#
a. Non Hazardous Industrial Waste (PETROLEUM IMPACTED SOIL)					
b.					
c.					
d.					

13. Additional Descriptions for Materials Listed Above (indicate waste stream Approval # below)
a. CL CL19-0020-02 PETROLEUM IMPACTED SOIL
b. CL
c. CL
d. CL

14. Special Handling Procedures for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact: Eric Gruber 507-351-4116

Office Use Only
Load # 78851

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Printed/Typed Name	Signature	Month	Day	Year
David Mayala	David Mayala			

TRANSPORTER

17. Transporter 1 Acknowledged of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Dustin Buttolph		9	3	21

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this Manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Janet Balduc or Alexus Phillip		09	03	21

White - Return to Generator
Canary - Facility Copy
Pink - Transporter
Goldenrod - Generator Copy

CL19-0020-02

Shamrock Landfill
761 Minnesota 45
Cloquet, MN 55720

INBOUND CHARGE

SITE	TICKET	GRID	WEIGHMASTER
01	00078821	LANDFILL	Janet B

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
09/03/21	09/03/21	09:15	09:15	K1	19-0020-02

REFERENCE	ORIGIN
19-0020-02	VIN: RB31867-WI-5AXLES

002708 LAKEHEAD CONSTRUCTORS INC
3801 WINTER ST
SUPERIOR WI 54880-5560

Scale 1 Gross Wt.	58040 LB
Stored Tare Wt.	28300 LB
Net Weight	29740 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
14.87	TON	Industrial/ton				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

Generator: HUSKY ENERGY/SUPERIOR REFINING
Address: 2407 STINSON AVE
City/ST: SUPERIOR, WI 54880
Manifest: 1655

SKB-WCI 4410

SIGNATURE _____

Shamrock Landfill
761 Minnesota 45
Cloquet, MN 55720

INBOUND CHARGE

SITE	TICKET	GRID	WEIGHMASTER
01	00078821	LANDFILL	Janet B

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
09/03/21	09/03/21	09:15	09:15	K1	19-0020-02

REFERENCE	ORIGIN
19-0020-02	VIN: RB31867-WI-5AXLES

002708 LAKEHEAD CONSTRUCTORS INC
3801 WINTER ST
SUPERIOR WI 54880-5560

Scale 1 Gross Wt.	58040 LB
Stored Tare Wt.	28300 LB
Net Weight	29740 LB

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
14.87	TON	Industrial/ton				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

Generator: HUSKY ENERGY/SUPERIOR REFINING
Address: 2407 STINSON AVE
City/ST: SUPERIOR, WI 54880
Manifest: 1655

SKB-WCI 4410

SIGNATURE _____

SKB ENVIRONMENTAL

Non Hazardous Industrial Waste

Shamrock Landfill

1655

Shipping Manifest

1. Generator's US EPA ID No. *(if any)*

2. Page 1 of page(s)

GENERATOR

3. Generator's Name and Facility Address
Husky Energy/Superior Refining Co
2407 Stinson Ave
Superior, WI 54880

Mailing Address
Husky Energy/Superior Refining Co
2407 Stinson Ave
Superior, WI 54880

4. Generator's Phone: (715) 817-6621 Fax:

5. Transporter 1 Company Name
Joe Kimmes Const KI

6. Transporter 2 Company Name

Phone:

7. Designated Facility Name and Site Address
Shamrock Environmental, LLC
761 MN Highway 45
Cloquet, MN 55720
Phone: 218-878-0112

8. U.S. DOT Description (including Proper Shipping Name)	9. Containers No.	9. Containers Type	10. Total Quantity	11. Unit Wt/Vol	12. Waste Profile Sheet#
a. Non Hazardous Industrial Waste (PETROLEUM IMPACTED SOIL)					
b.					
c.					
d.					

13. Additional Descriptions for Materials Listed Above (indicate waste stream Approval # below)
a. CL CL19-0020-02 PETROLEUM IMPACTED SOIL
b. CL
c. CL
d. CL

14. Special Handling Procedures for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Emergency Contact: Eric Gruber 507-351-4116

Office Use Only
Load # 78821

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Printed/Typed Name	Signature	Month	Day	Year
David Mayala	David Mayala			

TRANSPORTER

17. Transporter 1 Acknowledged of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Dustin Buthrock		9	3	21

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this Manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Janet Balduc or Alexus Phillip	Balduc	09	03	21

White - Return to Generator
Canary - Facility Copy
Pink - Transporter
Goldenrod - Generator Copy

CL19-0020-02

From: Paddock, Jeffrey J - DNR
Sent: Monday, August 30, 2021 12:53 PM
To: matthew.turner@huskyenergy.com
Cc: Paddock, Jeffrey J - DNR
Subject: Wisconsin DNR Spill Responsible Party Notification for SERTS ID 20210830NO16-1

Hi Matt,

Here is the notification for the crude oil spill that you reported this morning. Please submit the 45-day report with photos when the clean-up has been completed.

Thank you and let me know if you have additional questions.

Jeff Paddock

RR-5538 Wisconsin DNR Spill Electronic Reporting and Tracking System (SERTS) Responsible Party Notification

This notification contains information for the Responsible Party of the spill referenced below. Included is important legal information and links to spill response resources.

This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

August 30, 2021

Spill Occurred: 2021-08-30 10:00
Spill Reported: 2021-08-30 12:13
Substance(s): Crude Oil
SERTS ID: 20210830NO16-1

Spill Location:
2407 Stinson Ave
Superior, WI
Douglas County

Responsible Party:
Superior Refining Company Llc
[NO RP CONTACT NAME]
[NO RP CONTACT TITLE]
[NO RP ADDRESS 1]
[NO RP ADDRESS 2]
[RP CITY NOT ENTERED], [RP STATE NOT ENTERED] [RP ZIP NOT ENTERED]

Notice to Responsible Party

The person identified as the "Responsible Party" pursuant to Wis. Admin. Code § NR 700.03(51) is obligated to take the necessary response actions to address the hazardous substance discharge or environmental pollution under Wis. Stat. ch. 292.

Obligations

Your legal responsibilities are defined in Wis. Stat. ch. 292 and Wis. Admin. Code chs. NR 700-754. In particular, the hazardous substances spill law states:

> RESPONSIBILITY. A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state.

Wis. Admin. Code chs. NR 700 - 754 establish requirements for actions to be taken by responsible parties to restore the environmental to the extent practicable; protect public health, safety, welfare and the environment; and establishes documentation requirementsassociated with these response actions, where a hazardous substance discharge or environmental pollution has occurred. Wis. Admin.Code ch. NR 708 contains requirements for immediate actions following a hazardous substance discharge.

Steps to Take

Wis. Admin. Code § NR 708.05 requires responsible parties to take immediate action to halt a hazardous substance discharge or environmental pollution and minimize the harmful effects of the discharge or environmental pollution to the air, lands and waters of the state, unless otherwise directed by the DNR.

Below are initial actions that should be taken to address a hazardous substance discharge or environmental pollution:

> Obtain the services of an environmental response contractor and/or an environmental consultant to help ensure that proper immediate actions are taken and documented. Information about selecting Environmental Consultants and Spill Response Contractors is available at dnr.wi.gov search for environmental consultants and spills.
>
> Review, along with your contractor or consultant, Wis. Admin. Code § 708.05, which describes spill response actions for both emergency and non-emergency immediate actions.
>
> Wis. Admin. Code § NR 708.05(6) requires the submittal of written documentation to the DNR of immediate actions taken and the outcome of those actions, within 45 days after the hazardous substance discharge notification to the DNR.
>
> Comply with Wis. Admin. Code § NR 708.09, which specifies the requirements for the preparation and submittal of a final report to the DNR documenting the actions taken to respond to the hazardous substance discharge and environmental pollution. Reports may be submitted to the appropriate DNR regional spill coordinator, listed below

Review the remainder of Wis. Admin. Code § NR 708 to ensure that all immediate response action requirements have been complied with.

DNR Determination

The DNR will provide a cursory review of the Wis. Admin. Code ch. NR 708 reports, if submitted without a review fee. If no further action is necessary, the DNR will note that in the Bureau for Remediation and Redevelopment (BRRTS) database. If you want a written response from the DNR related to a No Further Action decision, or any other determination, please fill out and submit DNR Form 4400-237 with the appropriate fee.

If, however, groundwater wells are affected by the hazardous substance discharge or environmental pollution, if free product removal is required, if there is evidence that contaminated soil may be in contact with groundwater or residual contamination poses a threat to public health or the environment, the DNR shall require additional action per Wis. Admin. Code § NR708.09(2).

Please contact me if you have any questions regarding this notification or you would like to discuss your specific situation in more detail.

DNR Regional Spill Coordinator:

Jeffrey Paddock
715-828-8544
jeffrey.paddock@wisconsin.gov