

**NM1 - \_\_\_ 10 B \_\_\_**

**BIOPILE/  
SOIL  
REUSE  
APPROVAL**

**\_\_\_ April 16, 2021 \_\_\_**

## Jones, Brad A., EMNRD

---

**From:** Jones, Brad A., EMNRD  
**Sent:** Friday, April 16, 2021 9:17 AM  
**To:** Marcella Marquez  
**Subject:** RE: Request to Reuse Treated Soils  
**Attachments:** 2021 0413 Reuse for stabilization request approval for biopiles 1200, 1203, 1215, and 1222 signed.pdf

Marcella,

Please see the attached approval letter. A hardcopy will not be placed in the mail. If you have any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Brad

**Brad A. Jones** • Environmental Scientist Specialist - Advanced  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 S. Saint Francis Drive | Santa Fe, New Mexico 87505  
(505) 469-7486 | [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Marcella Marquez <marcella@industrialecosystems.com>  
**Sent:** Monday, April 12, 2021 10:37 AM  
**To:** Jones, Brad A., EMNRD <brad.a.jones@state.nm.us>  
**Subject:** [EXT] Request to Reuse Treated Soils

Brad:

Attached please find my request to reuse treated soils along with the corresponding analytical report.

**Thanks,**  
**Marcella Marquez**  
**Regulatory/Compliance/HR Manager**



State of New Mexico  
Energy, Minerals and Natural Resources Department

---

**Michelle Lujan Grisham**  
Governor

**Sarah Cottrell Propst**  
Cabinet Secretary

**Todd E. Leahy, JD, PhD**  
Deputy Secretary

**Adrienne Sandoval, Division Director**  
Oil Conservation Division



April 13, 2021

Ms. Marcella Marquez  
JFJ Landfarm, L.L.C.  
Industrial Ecosystems Inc.  
P.O. Box 1202  
Flora Vista, New Mexico 87415

**RE: Request for Approval to Reuse Remediated Biopile Soils for the Stabilization/Solidification of Drilling Mud, Tank Bottoms, and Sludge  
JFJ Landfarm, LLC - Industrial Ecosystems Inc.  
JFJ Landfarm – Permit # NM1-010-B  
Location: NW/4 SE/4 of Section 2, Township 29 North, Range 12 West, NMPM,  
San Juan County, New Mexico**

Dear Ms. Marquez:

The Oil Conservation Division (OCD) has reviewed JFJ Landfarm, LLC's (JFJ) request, emailed to OCD on April 12, 2021 and associated analytical results to reuse the remediated soils for the stabilization and/or solidification of incoming drilling mud, tank bottoms, and sludge from following biopile(s): **1200, 1203, 1215, and 1222.**

Based upon the information provided in the request, the above-referenced biopiles are hereby approved for the stabilization and/or solidification of incoming drilling mud and tank bottoms and sludge.

Please be advised that approval of this request does not relieve JFJ of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve JFJ of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 469-7486 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Respectfully,

Brad Jones  
Environmental Engineer

BAJ



**Main Address:** 49 Road 3150 \* Aztec, NM 87410  
**Remit to Address:** P.O. Box 1202 \* Flora Vista, NM 87415  
**P.O. Box:** P.O. Box 2043 \* Farmington, NM 87499  
**Phone:** (505) 632-1782  
**Fax:** (505) 632-1876 or (505) 334-1003

---

April 12, 2021

**Brad Jones**  
Environmental Bureau  
NM Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Use of reclaimed soil

Dear Brad:

Recent analytical results show that the following biopiles(s) have reached acceptable levels as required by our NMOCD permit.

**Pile #**

1203 DRO, GRO, BTEX & Chlorides Passed 04/08/21  
1222 DRO, GRO, BTEX & Chlorides Passed 04/08/21  
1200 DRO, GRO, BTEX & Chlorides Passed 04/08/21  
1215 DRO, GRO, BTEX & Chlorides Passed 04/08/21

We are seeking NMOCD approval to recycle this soil by using it to mix/solidify incoming liquid waste.

Respectfully Submitted,

Marcella Marquez  
Regulatory/Compliance/HR

Attachments/Enclosure – Analytical Reports

**Analytical Results For:**

INDUSTRIAL ECOSYSTEMS 49 CR 3150 AZTEC NM, 87410	Project: JFJ Project Number: 8377 Project Manager: MARCELLA MARQUEZ Fax To: (505) 632-1876	Reported: 08-Apr-21 14:11
--	---	------------------------------

**PILE # 1203**  
**H210838-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**
**Inorganic Compounds**

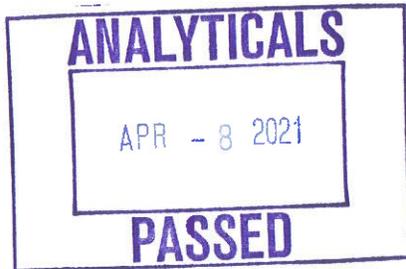
Chloride	<16.0		16.0	mg/kg	4	1040713	GM	08-Apr-21	4500-Cl-B	
----------	-------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	1040614	ms	06-Apr-21	8021B	
Toluene*	<0.050		0.050	mg/kg	50	1040614	ms	06-Apr-21	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	1040614	ms	06-Apr-21	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	1040614	ms	06-Apr-21	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	1040614	ms	06-Apr-21	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			108 %	73.3-129		1040614	ms	06-Apr-21	8021B	

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	
DRO >C10-C28*	12.4		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	
Surrogate: 1-Chlorooctane			70.0 %	44.3-144		1040707	MS	07-Apr-21	8015B	
Surrogate: 1-Chlorooctadecane			70.0 %	42.2-156		1040707	MS	07-Apr-21	8015B	



Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

INDUSTRIAL ECOSYSTEMS 49 CR 3150 AZTEC NM, 87410	Project: JFJ Project Number: 8377 Project Manager: MARCELLA MARQUEZ Fax To: (505) 632-1876	Reported: 08-Apr-21 14:11
--	---	------------------------------

**PILE # 1222**  
**H210838-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**

**Inorganic Compounds**

Chloride	<16.0		16.0	mg/kg	4	1040713	GM	08-Apr-21	4500-Cl-B	
----------	-------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Toluene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	1040614	ms	07-Apr-21	8021B	

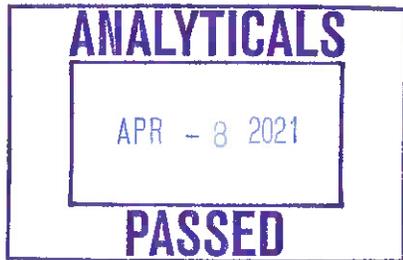
Surrogate: 4-Bromofluorobenzene (PID)			111 %		73.3-129	1040614	ms	07-Apr-21	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	
DRO >C10-C28*	28.2		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	

Surrogate: 1-Chlorooctane			70.7 %		44.3-144	1040707	MS	07-Apr-21	8015B	
---------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			67.5 %		42.2-156	1040707	MS	07-Apr-21	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--



Cardinal Laboratories

\*—Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

INDUSTRIAL ECOSYSTEMS 49 CR 3150 AZTEC NM, 87410	Project: JFJ Project Number: 8377 Project Manager: MARCELLA MARQUEZ Fax To: (505) 632-1876	Reported: 08-Apr-21 14:11
--	---	------------------------------

**PILE # 1200**  
**H210838-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**
**Inorganic Compounds**

Chloride	48.0		16.0	mg/kg	4	1040713	GM	08-Apr-21	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Toluene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	1040614	ms	07-Apr-21	8021B	

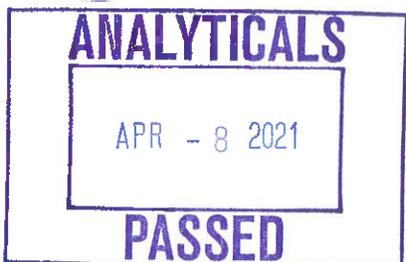
Surrogate: 4-Bromofluorobenzene (PID)			109 %		73.3-129	1040614	ms	07-Apr-21	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	
DRO >C10-C28*	19.3		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	

Surrogate: 1-Chlorooctane			77.3 %		44.3-144	1040707	MS	07-Apr-21	8015B	
---------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			79.2 %		42.2-156	1040707	MS	07-Apr-21	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--



Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

INDUSTRIAL ECOSYSTEMS 49 CR 3150 AZTEC NM, 87410	Project: JFJ Project Number: 8377 Project Manager: MARCELLA MARQUEZ Fax To: (505) 632-1876	Reported: 08-Apr-21 14:11
--	---	------------------------------

**PILE # 1215**  
**H210838-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**
**Inorganic Compounds**

Chloride	32.0		16.0	mg/kg	4	1040713	GM	08-Apr-21	4500-Cl-B	
----------	------	--	------	-------	---	---------	----	-----------	-----------	--

**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Toluene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	1040614	ms	07-Apr-21	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	1040614	ms	07-Apr-21	8021B	

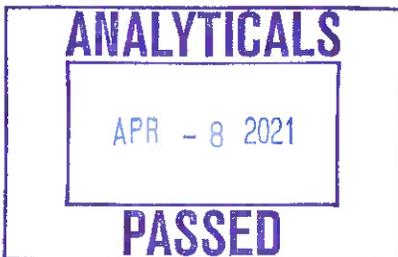
Surrogate: 4-Bromofluorobenzene (PID)			109 %		73.3-129	1040614	ms	07-Apr-21	8021B	
---------------------------------------	--	--	-------	--	----------	---------	----	-----------	-------	--

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	1040707	MS	07-Apr-21	8015B	

Surrogate: 1-Chlorooctane			78.1 %		44.3-144	1040707	MS	07-Apr-21	8015B	
---------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--

Surrogate: 1-Chlorooctadecane			80.7 %		42.2-156	1040707	MS	07-Apr-21	8015B	
-------------------------------	--	--	--------	--	----------	---------	----	-----------	-------	--



Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

INDUSTRIAL ECOSYSTEMS 49 CR 3150 AZTEC NM, 87410	Project: JFJ Project Number: 8377 Project Manager: MARCELLA MARQUEZ Fax To: (505) 632-1876	Reported: 08-Apr-21 14:11
--	---	------------------------------

**Inorganic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1040713 - 1:4 DI Water</b>										
<b>Blank (1040713-BLK1)</b>										
Chloride	ND	16.0	mg/kg							Prepared & Analyzed: 07-Apr-21
<b>LCS (1040713-BS1)</b>										
Chloride	416	16.0	mg/kg	400		104	80-120			Prepared & Analyzed: 07-Apr-21
<b>LCS Dup (1040713-BSD1)</b>										
Chloride	416	16.0	mg/kg	400		104	80-120	0.00	20	

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

INDUSTRIAL ECOSYSTEMS 49 CR 3150 AZTEC NM, 87410	Project: JFJ Project Number: 8377 Project Manager: MARCELLA MARQUEZ Fax To: (505) 632-1876	Reported: 08-Apr-21 14:11
--	---	------------------------------

**Volatile Organic Compounds by EPA Method 8021 - Quality Control**
**Cardinal Laboratories**

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

**Batch 1040614 - Volatiles**
**Blank (1040614-BLK1)**

Prepared &amp; Analyzed: 06-Apr-21

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.0564		mg/kg	0.0500		113	73.3-129			

**LCS (1040614-BS1)**

Prepared &amp; Analyzed: 06-Apr-21

Benzene	1.97	0.050	mg/kg	2.00		98.4	72.2-131			
Toluene	2.07	0.050	mg/kg	2.00		104	71.7-126			
Ethylbenzene	2.05	0.050	mg/kg	2.00		103	68.9-126			
Total Xylenes	6.36	0.150	mg/kg	6.00		106	71.4-125			
Surrogate: 4-Bromofluorobenzene (PID)	0.0535		mg/kg	0.0500		107	73.3-129			

**LCS Dup (1040614-BSD1)**

Prepared &amp; Analyzed: 06-Apr-21

Benzene	2.12	0.050	mg/kg	2.00		106	72.2-131	7.41	14.6	
Toluene	2.20	0.050	mg/kg	2.00		110	71.7-126	5.97	17.4	
Ethylbenzene	2.19	0.050	mg/kg	2.00		109	68.9-126	6.47	18.9	
Total Xylenes	6.80	0.150	mg/kg	6.00		113	71.4-125	6.73	18.5	
Surrogate: 4-Bromofluorobenzene (PID)	0.0535		mg/kg	0.0500		107	73.3-129			

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

INDUSTRIAL ECOSYSTEMS 49 CR 3150 AZTEC NM, 87410	Project: JFJ Project Number: 8377 Project Manager: MARCELLA MARQUEZ Fax To: (505) 632-1876	Reported: 08-Apr-21 14:11
--	---	------------------------------

**Petroleum Hydrocarbons by GC FID - Quality Control**
**Cardinal Laboratories**

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

**Batch 1040707 - General Prep - Organics**

<b>Blank (1040707-BLK1)</b>		Prepared & Analyzed: 07-Apr-21								
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	44.3		mg/kg	50.0		88.6	44.3-144			
Surrogate: 1-Chlorooctadecane	47.0		mg/kg	50.0		94.0	42.2-156			
<b>LCS (1040707-BS1)</b>		Prepared & Analyzed: 07-Apr-21								
GRO C6-C10	226	10.0	mg/kg	200		113	83.7-135			
DRO >C10-C28	228	10.0	mg/kg	200		114	80.4-133			
Surrogate: 1-Chlorooctane	49.3		mg/kg	50.0		98.6	44.3-144			
Surrogate: 1-Chlorooctadecane	50.9		mg/kg	50.0		102	42.2-156			
<b>LCS Dup (1040707-BSD1)</b>		Prepared & Analyzed: 07-Apr-21								
GRO C6-C10	215	10.0	mg/kg	200		107	83.7-135	5.20	13.8	
DRO >C10-C28	215	10.0	mg/kg	200		108	80.4-133	5.60	22.1	
Surrogate: 1-Chlorooctane	49.4		mg/kg	50.0		98.9	44.3-144			
Surrogate: 1-Chlorooctadecane	51.2		mg/kg	50.0		102	42.2-156			

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence or any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damage including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



---

Celey D. Keene, Lab Director/Quality Manager

