

OIL ANALYSIS REPORT

Sample Rating Trend





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

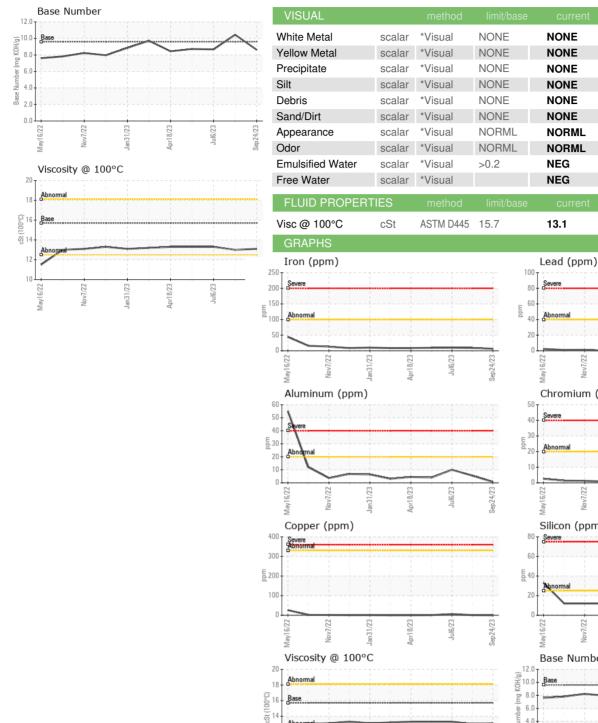
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		May2022	Nov2022 Jan2023	Apr2023 Jul2023	Sep2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0819745	WC0819758	WC0819773
Sample Date		Client Info		24 Sep 2023	08 Aug 2023	06 Jul 2023
Machine Age	mls	Client Info		221650	202785	197562
Oil Age	mls	Client Info		15000	15000	15000
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	6	9	10
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	<1	6	10
Lead	ppm	ASTM D5185m	>40	<1	1	6
Copper	ppm	ASTM D5185m	>330	0	<1	6
Tin	ppm	ASTM D5185m	>15	<1	<1	2
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 255	history1 243	history2 201
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	255	243	201
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	255 0	243 0	201 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	255 0 123	243 0 120	201 0 115
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	255 0 123 0	243 0 120 <1	201 0 115 2
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	255 0 123 0 673	243 0 120 <1 656	201 0 115 2 697
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		255 0 123 0 673 1579	243 0 120 <1 656 1582	201 0 115 2 697 1564
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200	255 0 123 0 673 1579 698	243 0 120 <1 656 1582 688	201 0 115 2 697 1564 759
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300	255 0 123 0 673 1579 698 888	243 0 120 <1 656 1582 688 845	201 0 115 2 697 1564 759 907
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300 3200	255 0 123 0 673 1579 698 888 2594	243 0 120 <1 656 1582 688 845 2847	201 0 115 2 697 1564 759 907 3065
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base	255 0 123 0 673 1579 698 888 2594 current	243 0 120 <1 656 1582 688 845 2847 history1	201 0 115 2 697 1564 759 907 3065 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1200 1300 3200 limit/base >25	255 0 123 0 673 1579 698 888 2594 2594 current 9	243 0 120 <1 656 1582 688 845 2847 history1 8	201 0 115 2 697 1564 759 907 3065 history2 10
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1200 1300 3200 limit/base >25	255 0 123 0 673 1579 698 888 2594 2594 current 9 <1	243 0 120 <1 656 1582 688 845 2847 history1 8 2	201 0 115 2 697 1564 759 907 3065 history2 10 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25 >20	255 0 123 0 673 1579 698 888 2594 current 9 <1 6	243 0 120 <1 656 1582 688 845 2847 history1 8 2 2 11	201 0 115 2 697 1564 759 907 3065 history2 10 1 1 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25 >20 limit/base	255 0 123 0 673 1579 698 888 2594 current 9 <1 6 2 current	243 0 120 <1 656 1582 688 845 2847 history1 8 2 2 11 history1	201 0 115 2 697 1564 759 907 3065 history2 10 1 1 13 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25 >20 limit/base >3	255 0 123 0 673 1579 698 888 2594 <i>current</i> 9 <1 6 <i>current</i> 0.3	243 0 120 <1 656 1582 688 845 2847 history1 8 2 11 8 2 11 0.3	201 0 115 2 697 1564 759 907 3065 history2 10 1 13 13 history2 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25 >20 limit/base >3 >20	255 0 123 0 673 1579 698 888 2594 <i>current</i> 9 <1 6 <i>current</i> 0.3 7.8	243 0 120 <1 656 1582 688 845 2847 history1 8 2 2 11 8 2 11 0.3 8.0	201 0 115 2 697 1564 759 907 3065 history2 10 1 13 history2 0.4 8.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	1200 1300 3200 limit/base >25 >20 limit/base >3 >20 >30	255 0 123 0 673 1579 698 888 2594 <u>current</u> 9 <1 6 <u>current</u> 0.3 7.8 23.6	243 0 120 <1 656 1582 688 845 2847 history1 8 2 11 0.3 8.0 23.8	201 0 115 2 697 1564 759 907 3065 history2 10 1 13 history2 0.4 8.2 24.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	1200 1300 3200 limit/base >25 >20 limit/base >3 >20 >30 limit/base	255 0 123 0 673 1579 698 888 2594 <i>current</i> 9 <1 6 <i>current</i> 0.3 7.8 23.6 <i>current</i>	243 0 120 <1 656 1582 688 845 2847 history1 8 2 2 11 history1 0.3 8.0 23.8 history1	201 0 115 2 697 1564 759 907 3065 history2 10 1 1 13 history2 0.4 8.2 24.1 history2



OIL ANALYSIS REPORT



12

10

Laboratory

Sample No.

Lab Number

Unique Number

Test Package

Mav16/77

: WC0819745

:05963019

: 10669570

: MOB 2

Nov7/22

Jan31/23

Apr18/23

Received

Diagnosed

Diagnostician

Jan31/23 vpr18/23 ul6/23 6/22 Vov7/22 Chromium (ppm) Jan31/23 Jul6/23 Apr18/23 en24/73 Mav1 Silicon (ppm) S Jan 31/23 lul6/23 Vov7/22 Anr18/73 PU24/23 Base Number Number 4.0 Base 2.0 0.0 Jul6/23 -Sep24/23 -Jan31/23 May16/22 lul6/23 Sep 24/23 Nov7/22 Apr18/23 ALLEGHENY DISPOSAL LLC : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 27 Sep 2023 PO BOX 4 GREEN BANK, WV : 29 Sep 2023 : Wes Davis US 24944 Contact: SERVICE MANAGER To discuss this sample report, contact Customer Service at 1-800-237-1369. meckmechanic@frontier.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (304)456-4541 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (304)456-4540

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

13.1

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

13.0

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

13.3

Certificate L2367

Contact/Location: SERVICE MANAGER - ALLGRELF