

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

FREIGHTLINER 1127

Diesel Engine

Fluid CHEVRON DELO 400 XLE 10W30 (40 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

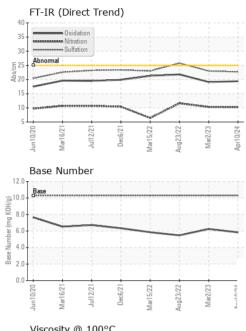
Fluid Condition

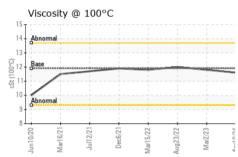
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0851839	WC0733047	WC0593826
Sample Date		Client Info		10 Apr 2024	02 Mar 2023	23 Aug 2022
Machine Age	kms	Client Info		0	415631	363653
Oil Age	kms	Client Info		65000	55000	65000
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	22	26	21
Chromium	ppm	ASTM D5185m	>5	1	1	1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>30	10	11	10
Lead	ppm	ASTM D5185m	>30	0	<1	<1
Copper	ppm	ASTM D5185m	>150	6	6	11
Tin	ppm	ASTM D5185m	>5	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	0 history1	0 history2
	ppm ppm		limit/base		-	-
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 29	history1 26	history2 17
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 29 0	history1 26 0	history2 17 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 29 0 1	history1 26 0 <1	history2 17 0 <1
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 29 0 1 <1	history1 26 0 <1 <1	history2 17 0 <1 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		current 29 0 1 <1 782	history1 26 0 <1 <1 <1 711	history2 17 0 <1 <1 <1 763
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2900	Current 29 0 1 <1 782 1479	history1 26 0 <1 <1 <1 711 1403	history2 17 0 <1 <1 <1 763 1447
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2900 1100	Current 29 0 1 <1 782 1479 721	history1 26 0 <1 <1 711 1403 709	history2 17 0 <1 <1 763 1447 722
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2900 1100 1200	Current 29 0 1 <1 782 1479 721 806	history1 26 0 <1 <1 711 1403 709 859	history2 17 0 <1 <1 <1 763 1447 722 845
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2900 1100 1200 4000 limit/base	Current 29 0 1 <1 782 1479 721 806 3243	history1 26 0 <1 <1 711 1403 709 859 2953	history2 17 0 <1 <1 763 1447 722 845 3486
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2900 1100 1200 4000 limit/base	Current 29 0 1 <1 782 1479 721 806 3243 Current	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5 1	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2900 1100 1200 4000 limit/base >20	Current 29 0 1 <1 782 1479 721 806 3243 current 5	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2900 1100 1200 4000 limit/base >20	Current 29 0 1 <1 782 1479 721 806 3243 Current 5 4 10 Current	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5 1 13 history1	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5 3 12 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2900 1100 1200 4000 limit/base >20 20 limit/base	Current 29 0 1 <1 782 1479 721 806 3243 Current 5 4 10	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5 1 13 history1 0.4	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5 3 12 history2 0.5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2900 1100 1200 4000 limit/base >20 >20 limit/base	Current 29 0 1 <1 782 1479 721 806 3243 Current 5 4 10 Current	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5 1 13 history1	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5 3 12 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2900 1100 1200 4000 limit/base >20 >20 limit/base >3	Current 29 0 1 <1 782 1479 721 806 3243 current 5 4 10 current 0.4	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5 1 13 history1 0.4	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5 3 12 history2 0.5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2900 1100 1200 4000 limit/base >20 20 limit/base >3 >20	Current 29 0 1 <1 782 1479 721 806 3243 current 5 4 10 current 0.4 10.2	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5 1 13 history1 0.4 10.3	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5 3 12 history2 0.5 11.6
ADDITIVES 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	method ASTM D5185m ASTM D5185m	2900 1100 1200 4000 imit/base >20 imit/base >3 >20 >3 >20	Current 29 0 1 <1 782 1479 721 806 3243 current 5 4 10 current 0.4 10.2 22.7	history1 26 0 <1 <1 711 1403 709 859 2953 history1 5 1 13 history1 0.4 10.3 23.0	history2 17 0 <1 <1 763 1447 722 845 3486 history2 5 3 12 history2 0.5 11.6 25.8



OIL ANALYSIS REPORT





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual	20.2	NEG	NEG	NEG
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	11.6	11.8	12.0
GRAPHS						
Iron (ppm)				Lead (ppm)		
Severe			6	Smarn		
Abnormal				0 - Abnormal		
50-			2	0		
	2	3			2	3
Jun 10/20 Mar 16/21 Jul 12/21	Dec6/21 Mar15/22	Aug23/22 Mar2/23	Apr10/24	Jun 10/20 Mar 16/21 Jul 12/21	Dec6/21 Mar15/22	Aug23/22 Mar2/23 Apr10/24
Aluminum (ppm)	-	4		Chromium (p	_	4
60 Severe				2 0 Severe		
40				8		
and a second sec			bhu	6 - Abnormal		
20				4		
10				2		
Jun10/20	Dec6/21+ Mar15/22+	Aug23/22 + Mar2/23 +	Apr10/24	Jun 10/20	Dec6/21 + Mar15/22 +	Aug23/22 + Mar2/23 + Apr10/24 +
특 🖉 🤻 Copper (ppm)	Mai	Aug	Apr	Silicon (ppm)	Mai	Aug M.
400 T			4	0		
300 - Severe			3	Severe 0 -		
E 200			E 2	0 - Abnormal		
Abnomal 100			1			
				0		
	Dec6/21- Mar15/22-	Aug23/22 - Mar2/23 -	Apr10/24	Jun 10/20	Dec6/21- Mar15/22 -	Aug23/22 - Mar2/23 - Apr10/24 -
ਸ਼ੋ ਵੱੱ Viscosity @ 100°0	\geq	Aug M	Ap	∃ ≊ ¬ Base Number	2	Auç M
16			12. 12.	0	1 1	1 1 1
14 - Abnormal			(b)H01 8. 9. 9. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	0		
(5-001) 12 - Base 12			g G.	0		
⁹³ 10 - Abnormal			JIN 4	0		
8			t 0.	0		
Jun 10/20 - Mar 16/21 - Jul 12/21 -	Dec6/21- Mar15/22 -	Aug23/22 - Mar2/23 -	Apr10/24 -	Jun10/20 - Mar16/21	Dec6/21- Mar15/22 -	Aug23/22 - Mar2/23 - Apr10/24 -
Jun1 Mari	De Mar1	Aug2 Mai	Aprl	Jun1 Mari Jul1	De. Mar1	Aug2 Mai Apr1
: WearCheck USA - 50 : WC0851839 : 06148905 : 10978983	Recei Teste	ived :15 ed :16	r, NC 27513 5 Apr 2024 6 Apr 2024 Apr 2024 - Se	27340 ACI		SPRUCE GROVE DN INDUSTRIAL PARK ACHESON, AB CA T7X 6B1



Test Package : MOB 2 Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Contact: Mathieu Carby mcarby@lynden.com T: F:

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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)
Report Id: LYNSPR [WUSCAR] 06148905 (Generated: 04/17/2024 14:03:52) Rev: 1
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Laboratory

Sample No.

Lab Number Unique Number :

Contact/Location: Mathieu Carby - LYNSPR

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