

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

20-140 (S/N 5KJJAED10KPKK7039)

Diesel Engine Fluid **DIESEL ENGINE OIL SAE 30 (--- GAL)**

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

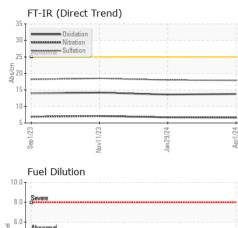
Fluid Condition

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

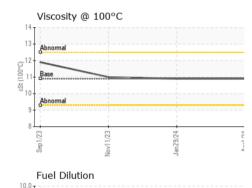
SAMPLE INFORI		method	limit/base	ourropt	history1	history
			iimii/base	current	· · · · ·	history2
Sample Number		Client Info		PCA0109633	PCA0109637	PCA0104620
Sample Date		Client Info		01 Apr 2024	29 Jan 2024	11 Nov 2023
Machine Age	mls	Client Info		304658	294241	283255
Oil Age	mls	Client Info		304658 N/A	285012 N/A	10000 N/A
Oil Changed		Client Info			NORMAL	N/A NORMAL
Sample Status				-	-	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	11	7	8
Chromium	ppm	ASTM D5185m	>20	2	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	7	5	4
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	2	1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
		method	iiiiii/base	Guironi	Thistory I	riistor yz
Boron	ppm	ASTM D5185m	250	9	8	6
	ppm ppm					
Boron		ASTM D5185m	250	9	8	6
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	9 0	8 0	6 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	9 0 61	8 0 58	6 0 63
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	9 0 61 <1	8 0 58 <1	6 0 63 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	9 0 61 <1 942	8 0 58 <1 906	6 0 63 <1 899
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	9 0 61 <1 942 1087	8 0 58 <1 906 1009	6 0 63 <1 899 1165
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	250 10 100 450 3000 1150	9 0 61 <1 942 1087 1025	8 0 58 <1 906 1009 1015	6 0 63 <1 899 1165 1067
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	250 10 100 450 3000 1150 1350	9 0 61 <1 942 1087 1025 1238	8 0 58 <1 906 1009 1015 1208	6 0 63 <1 899 1165 1067 1219
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	250 10 100 450 3000 1150 1350 4250	9 0 61 <1 942 1087 1025 1238 3146	8 0 58 <1 906 1009 1015 1208 3017	6 0 63 <1 899 1165 1067 1219 2573
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm 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	250 10 100 450 3000 1150 1350 4250	9 0 61 <1 942 1087 1025 1238 3146 current	8 0 58 <1 906 1009 1015 1208 3017 history1	6 0 63 <1 899 1165 1067 1219 2573 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	250 10 100 450 3000 1150 1350 4250 limit/base >25	9 0 61 <1 942 1087 1025 1238 3146 current 7	8 0 58 <1 906 1009 1015 1208 3017 history1 5	6 0 63 <1 899 1165 1067 1219 2573 history2 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75	9 0 61 <1 942 1087 1025 1238 3146 <u>current</u> 7 1	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20	9 0 61 <1 942 1087 1025 1238 3146 <u>current</u> 7 1 5	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1 4	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >75 >20 >5	9 0 61 <1 942 1087 1025 1238 3146 <u>current</u> 7 1 5 5 <1.0	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1 4 4 <1.0	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3 2 2 0.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 20 >25 >20 >5 S	9 0 61 <1 942 1087 1025 1238 3146 <i>current</i> 7 1 5 <1.0 <i>current</i>	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1 4 4 <1.0 history1	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3 2 0.3 kistory2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Iimit/base >25 >20 >5 Iimit/base >3	9 0 61 <1 942 1087 1025 1238 3146 <i>current</i> 7 1 5 <1.0 <i>current</i> 0.2	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1 4 4 <1.0 history1 0.3	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3 2 0.3 history2 0.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 20 >25 >75 >20 } 20 imit/base >3 >20	9 0 61 <1 942 1087 1025 1238 3146 <i>current</i> 7 1 5 <1.0 <i>current</i> 0.2 6.6	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1 4 <1.0 history1 0.3 6.7	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3 2 0.3 history2 0.3 7.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 imit/base >25 >20 >5 imit/base >3 >20 >30	9 0 61 <1 942 1087 1025 1238 3146 <i>current</i> 7 1 5 <1.0 <i>current</i> 0.2 6.6 17.9 <i>current</i>	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1 4 <1.0 history1 0.3 6.7 18.0 history1	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3 2 0.3 history2 0.3 7.1 18.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 binit/base >25 >75 >20 >5 binit/base >3 >20 >3	9 0 61 <1 942 1087 1025 1238 3146 <i>current</i> 7 1 5 <1.0 <i>current</i> 0.2 6.6 17.9	8 0 58 <1 906 1009 1015 1208 3017 history1 5 1 4 <1.0 history1 0.3 6.7 18.0	6 0 63 <1 899 1165 1067 1219 2573 history2 6 3 2 0.3 history2 0.3 7.1 18.5



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		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	10.9	10.9	11.0
GRAPHS						
Iron (ppm)			100	Lead (ppm)		
200 Severe			80	Severe		
150-			e 60			
150 100 - Abnormal			E 40	Abnormal		
50 -			20	-		
0		4				+ +
Sep1/23 Nov11/23		Jan 29/24	Apr1/24	Sep 1/23	Vov11/23	Jan 29/24 - Apr1/24 -
Aluminum (ppm)		7		Chromium (p		7
50 Severe			50	Savara		
		1	40	1 G		1 I I
20 - Abnormal			E 30	Abnormal		
			20	-		
10			10			
		9/24 -	Apr1/24	Sep 1/23	1/23	an 29/24 - Apr1/24 -
Sep1/23 Nov11/23		Jan 29/24	Apr	Sep	Nov11/23	Jan 29/24 Apr1/24
Copper (ppm)			80	Silicon (ppm)		
Approximat					1	
300-			60			
200-			튭 40	Abnormal		
100			20			
0			0			
Sep 1/23 Nov11/23		Jan 29/24	Apr1/24	Sep1/23	Nov11/23	Jan 29/24 -
∽ Viscosity @ 100°C		Ja		Base Number	-	
14				·		
Abilointa			Base Mumber (mg KOH/g)	Base		
C 12 Base 3 10 Abnormal			ber (n	Abnormal		
Autoittia			June 10	- of the second		
9					_	
Sep1/23		Jan 29/24 -	Apr1/24	Sep 1/23	Nov11/23 -	Jan 29/24 -
Sep Nov1		Jan2	Api	Sep	Nov -	Apr
: WearCheck USA - 50 ⁻	1 Madiso	n Ave., Cary	, NC 27513		SLT CO	ONSTRUCTION



Lab Number: 06139493TestedUnique Number: 10964301DiagnosedTest Package: MOB 2 (Additional Tests: FuelDilution)

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.

: PCA0109633

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Received

Report Id: SLTCARMA [WUSCAR] 06139493 (Generated: 04/05/2024 17:55:33) Rev: 1

Certificate 12367

Laboratory

Sample No.

Submitted By: MARC CARVALHO

Contact: MARC CARVALHO

marcc@sltconstruction.net

Page 2 of 2

T:

F: