

OIL ANALYSIS REPORT

600HP 217421 [600HP]

Diesel Engine

DIESEL ENGINE OIL SAE 10W30 (38 QTS)

Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

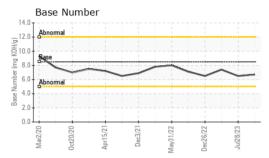
Fluid Condition

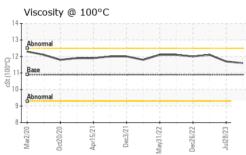
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Vmzłażdo Oesłażdo Aprźdożi Овеźdożi Мюуładzi Овеźdożi Judłaża						
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101268	PCA0101186	PCA0073107
Sample Date		Client Info		19 Oct 2023	28 Jul 2023	30 Apr 2023
Machine Age	mls	Client Info		644103	612497	580579
Oil Age	mls	Client Info		30000	30000	30000
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>65	16	15	21
Chromium	ppm	ASTM D5185m	>5	1	1	<1
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Titanium	ppm	ASTM D5185m	>5	0	0	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>35	4	4	2
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>180	7	6	9
Tin	ppm	ASTM D5185m	>8	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	<1 current	0 history1	0 history2
	ppm		limit/base			
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	250	current 0	history1	history2
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m	250 10	current 0 4	history1 0 0	history2 8 0
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	250 10	current 0 4 75	history1 0 0 61	history2 8 0 61
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	current 0 4 75 <1	history1 0 0 61 <1	history2 8 0 61 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	current 0 4 75 <1 1118	history1 0 0 61 <1 1014	history2 8 0 61 <1 940
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	current 0 4 75 <1 1118 1279	history1 0 0 61 <1 1014 1154 1008 1328	history2 8 0 61 <1 940 1288
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150	current 0 4 75 <1 1118 1279 1092	history1 0 0 61 <1 1014 1154 1008	history2 8 0 61 <1 940 1288 1025
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350	current 0 4 75 <1 1118 1279 1092 1463	history1 0 0 61 <1 1014 1154 1008 1328	history2 8 0 61 <1 940 1288 1025 1335
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250	current 0 4 75 <1 1118 1279 1092 1463 3343	history1 0 0 61 <1 1014 1154 1008 1328 3116	history2 8 0 61 <1 940 1288 1025 1335 3354
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	current 0 4 75 <1 1118 1279 1092 1463 3343 current	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1	history2 8 0 61 <1 940 1288 1025 1335 3354 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	current 0 4 75 <1 1118 1279 1092 1463 3343 current 5	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1	history2 8 0 61 <1 940 1288 1025 1335 3354 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >15	current 0 4 75 <1 1118 1279 1092 1463 3343 current 5	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1 5	history2 8 0 61 <1 940 1288 1025 1335 3354 history2 9 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20	current 0 4 75 <1 1118 1279 1092 1463 3343 current 5 0 4	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1 5 2 5	history2 8 0 61 <1 940 1288 1025 1335 3354 history2 9 2 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3	current 0 4 75 <1 1118 1279 1092 1463 3343 current 5 0 4 current	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1 5 2 5	history2 8 0 61 <1 940 1288 1025 1335 3354 history2 9 2 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3	current 0 4 75 <1 1118 1279 1092 1463 3343 current 5 0 4 current 0.8	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1 5 2 5 history1 0.8	history2 8 0 61 <1 940 1288 1025 1335 3354 history2 9 2 3 history2 0.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base	current 0 4 75 <1 1118 1279 1092 1463 3343 current 5 0 4 current 0.8 8.8	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1 5 2 5 history1 0.8 8.7	history2 8 0 61 <1 940 1288 1025 1335 3354 history2 9 2 3 history2 0.6 9.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3 >20 >30	current 0 4 75 <1 1118 1279 1092 1463 3343 current 5 0 4 current 0.8 8.8 21.2	history1 0 0 61 <1 1014 1154 1008 1328 3116 history1 5 2 5 history1 0.8 8.7 20.6	history2 8 0 61 <1 940 1288 1025 1335 3354 history2 9 2 3 history2 0.6 9.1 21.4



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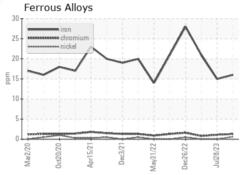


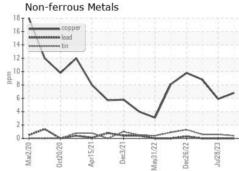


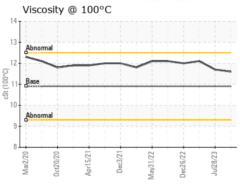
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

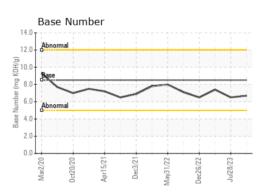
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	10.9	11.6	11.7	12.1

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10726052

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0101268 : 05997692

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Test Package : FLEET

Received : 03 Nov 2023 Diagnosed : 06 Nov 2023

Diagnostician : Wes Davis

McLane Company - High Plains - 600HP 1717 East Loop 289

LUBBOCK, TX US 79403

Contact: RITA GARCIA rita.garcia@mclaneco.com T: (806)766-2902

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: RITA GARCIA - MCLLUB

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