

OIL ANALYSIS REPORT

600**HP** 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.

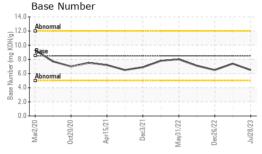
Fluid Condition

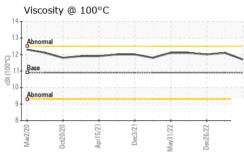
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		Mar2U2U	OctZUZU AprZUZ1	Deczuzi Mayzuzz Deczuzz	Jul2023	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101186	PCA0073107	PCA0067763
Sample Date		Client Info		28 Jul 2023	30 Apr 2023	26 Dec 2022
Machine Age	mls	Client Info		612497	580579	546846
Oil Age	mls	Client Info		30000	30000	30000
Oil Changed		Client Info		N/A	Changed	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	15	21	28
Chromium	ppm	ASTM D5185m	>5	1	<1	2
Nickel	ppm	ASTM D5185m	>3	0	0	<1
Titanium	ppm	ASTM D5185m	>5	0	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>35	4	2	12
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>180	6	9	10
Tin	ppm	ASTM D5185m	>8	<1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 250	current 0	history1 8	history2 7
	ppm					
Boron		ASTM D5185m	250	0	8	7
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	0 0	8	7
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	0 0 61	8 0 61	7 0 58
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	0 0 61 <1	8 0 61 <1	7 0 58 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	0 0 61 <1 1014	8 0 61 <1 940	7 0 58 <1 859
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	0 0 61 <1 1014 1154	8 0 61 <1 940 1288	7 0 58 <1 859 1248
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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	0 0 61 <1 1014 1154 1008	8 0 61 <1 940 1288 1025	7 0 58 <1 859 1248 970
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 ASTM D5185m	250 10 100 450 3000 1150	0 0 61 <1 1014 1154 1008	8 0 61 <1 940 1288 1025 1335	7 0 58 <1 859 1248 970
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250	0 0 61 <1 1014 1154 1008 1328 3116	8 0 61 <1 940 1288 1025 1335 3354	7 0 58 <1 859 1248 970 1282 2884
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	0 0 61 <1 1014 1154 1008 1328 3116	8 0 61 <1 940 1288 1025 1335 3354 history1	7 0 58 <1 859 1248 970 1282 2884 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	0 0 61 <1 1014 1154 1008 1328 3116 current	8 0 61 <1 940 1288 1025 1335 3354 history1	7 0 58 <1 859 1248 970 1282 2884 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Iimit/base >15	0 0 61 <1 1014 1154 1008 1328 3116 current 5	8 0 61 <1 940 1288 1025 1335 3354 history1	7 0 58 <1 859 1248 970 1282 2884 history2 11
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20	0 0 61 <1 1014 1154 1008 1328 3116 current 5 2	8 0 61 <1 940 1288 1025 1335 3354 history1 9 2	7 0 58 <1 859 1248 970 1282 2884 history2 11 2 3
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	ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3	0 0 61 <1 1014 1154 1008 1328 3116 current 5 2	8 0 61 <1 940 1288 1025 1335 3354 history1 9 2 3	7 0 58 <1 859 1248 970 1282 2884 history2 11 2 3 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	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	0 0 61 <1 1014 1154 1008 1328 3116 current 5 2 5	8 0 61 <1 940 1288 1025 1335 3354 history1 9 2 3 history1 0.6	7 0 58 <1 859 1248 970 1282 2884 history2 11 2 3 history2 0.8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base	0 0 61 <1 1014 1154 1008 1328 3116 current 5 2 5 current 0.8 8.7	8 0 61 <1 940 1288 1025 1335 3354 history1 9 2 3 history1 0.6 9.1	7 0 58 <1 859 1248 970 1282 2884 history2 11 2 3 history2 0.8 9.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D76145	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3 >20 >30	0 0 61 <1 1014 1154 1008 1328 3116 current 5 2 5 current 0.8 8.7 20.6	8 0 61 <1 940 1288 1025 1335 3354 history1 9 2 3 history1 0.6 9.1 21.4	7 0 58 <1 859 1248 970 1282 2884 history2 11 2 3 history2 0.8 9.2 21.8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm	ASTM D5185m METHOD *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD *ASTM D7844 *ASTM D7624 *ASTM D7415 METHOD	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3 >20 >30 limit/base	0 0 61 <1 1014 1154 1008 1328 3116 current 5 2 5 current 0.8 8.7 20.6 current	8 0 61 <1 940 1288 1025 1335 3354 history1 9 2 3 history1 0.6 9.1 21.4 history1	7 0 58 <1 859 1248 970 1282 2884 history2 11 2 3 history2 0.8 9.2 21.8 history2



OIL ANALYSIS REPORT



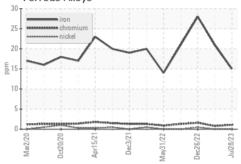


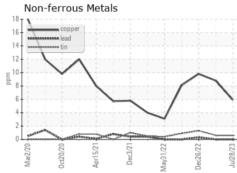
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

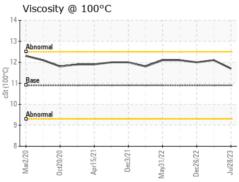
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	10.9	11.7	12.1	12.0

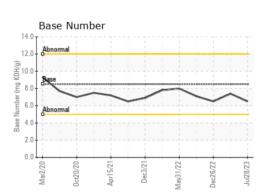
GRAPHS

Ferrous Alloys













Certificate L2367

Laboratory Sample No. Lab Number

Unique Number : 10605743

: PCA0101186 : 05925796 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 16 Aug 2023 Diagnosed : 16 Aug 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

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.

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