

OIL ANALYSIS REPORT

Sample Rating Trend

Fedd/220 Dec6/226 Jank/021 Jank/022 Sep/2022 App/2023 Occ6/225

NORMAL



600HP Machine Id 217423 [600HP]

Diesel Engine

DIESEL ENGINE OIL SAE 10W30 (38 QTS)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

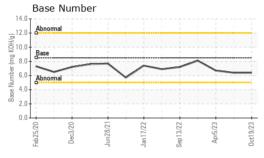
Fluid Condition

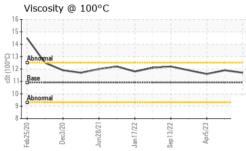
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Feb 2020						
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101260	PCA0101187	PCA0073100
Sample Date		Client Info		19 Oct 2023	21 Jul 2023	05 Apr 2023
Machine Age	mls	Client Info		641328	606746	571024
Oil Age	mls	Client Info		30000	30000	30000
Oil Changed		Client Info		Changed	N/A	N/A
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	17	17	15
Chromium	ppm	ASTM D5185m	>5	1	1	2
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Titanium	ppm	ASTM D5185m	>5	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>35	3	5	6
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>180	7	8	6
Tin	ppm	ASTM D5185m	>8	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium		ASTM D5185m			0	0
Oddiniani	ppm	MOTIVI DOTOSITI		<1	U	U
ADDITIVES	ррпп	method	limit/base	current	history1	history2
	ррт		limit/base			-
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	250	current 0	history1 <1	history2
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m	250 10	current 0 4	history1 <1 0	history2 1 0
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	250 10	current 0 4 65	history1 <1 0 62	history2 1 0 63
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	current 0 4 65 <1	history1 <1 0 62 <1	history2 1 0 63 <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 65 <1 942	history1 <1 0 62 <1 1037	history2 1 0 63 <1 1023
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 65 <1 942 1083	history1 <1 0 62 <1 1037 1157	history2 1 0 63 <1 1023 1129
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 65 <1 942 1083 922	history1 <1 0 62 <1 1037 1157 1016	history2 1 0 63 <1 1023 1129 1068
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350	current 0 4 65 <1 942 1083 922 1250	history1 <1 0 62 <1 1037 1157 1016 1350	history2 1 0 63 <1 1023 1129 1068 1332
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250	current 0 4 65 <1 942 1083 922 1250 2615	history1 <1 0 62 <1 1037 1157 1016 1350 3072	history2 1 0 63 <1 1023 1129 1068 1332 3461
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	current 0 4 65 <1 942 1083 922 1250 2615 current	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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 65 <1 942 1083 922 1250 2615 current 5	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1 6	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >15	current 0 4 65 <1 942 1083 922 1250 2615 current 5	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1 6 2	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2 5
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20	current 0 4 65 <1 942 1083 922 1250 2615 current 5 0 2	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1 6 2 3	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2 5 2 1
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	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3	current 0 4 65 <1 942 1083 922 1250 2615 current 5 0 2 current	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1 6 2 3 history1	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2 5 2 1 history2
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	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3	current 0 4 65 <1 942 1083 922 1250 2615 current 5 0 2 current	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1 6 2 3 history1 1	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2 5 2 1 history2 0.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D7185m *ASTM D7185m	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base	current 0 4 65 <1 942 1083 922 1250 2615 current 5 0 2 current 1 8.9	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1 6 2 3 history1 1 9.1	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2 5 2 1 history2 0.6 8.2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	method ASTM D5185m method ASTM D5185m ASTM D5185m *ASTM D5185m ASTM D7185m *ASTM D7185m	250 10 100 450 3000 1150 1350 4250 limit/base >15 >20 limit/base >3 >20 >30	current 0 4 65 <1 942 1083 922 1250 2615 current 5 0 2 current 1 8.9 21.5	history1 <1 0 62 <1 1037 1157 1016 1350 3072 history1 6 2 3 history1 1 9.1 21.3	history2 1 0 63 <1 1023 1129 1068 1332 3461 history2 5 2 1 history2 0.6 8.2 18.5



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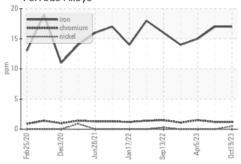


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

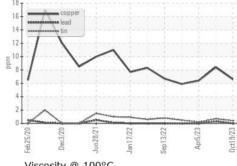
FLUID PROPE	RHES	method			history1	history2
Visc @ 100°C	cSt	ASTM D445	10.9	11.7	11.9	11.6

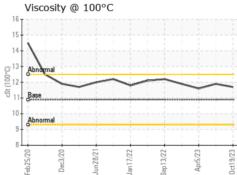
GRAPHS

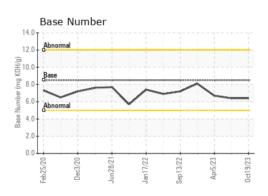
Ferrous Alloys















Certificate L2367

Laboratory

Sample No. Lab Number Unique Number : 10726053 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0101260 : 05997693

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

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)