



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
281 (S/N 1XKWP4TX9MR400487)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0893934	WC0867914	WC0834210
Sample Date		Client Info		15 Apr 2024	27 Dec 2023	28 Aug 2023
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	77	33	40
Chromium	ppm	ASTM D5185m	>20	8	1	2
Nickel	ppm	ASTM D5185m	>4	2	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	6	4	6
Lead	ppm	ASTM D5185m	>40	8	12	6
Copper	ppm	ASTM D5185m	>330	5	0	0
Tin	ppm	ASTM D5185m	>15	2	2	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

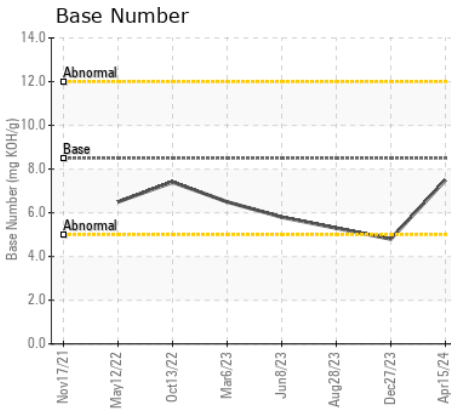
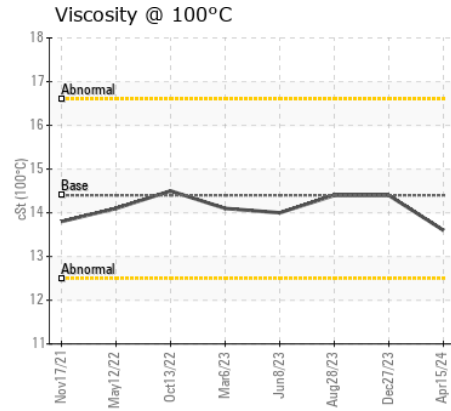
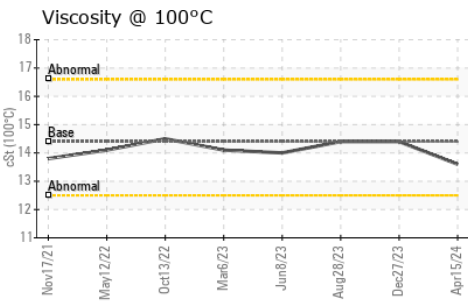
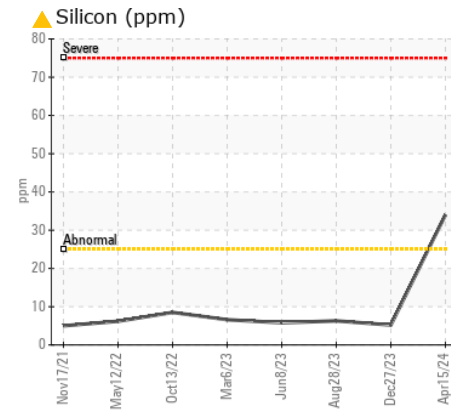
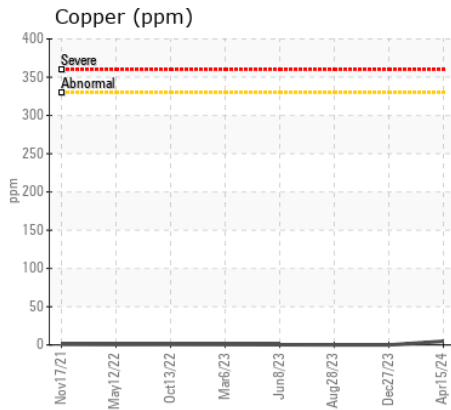
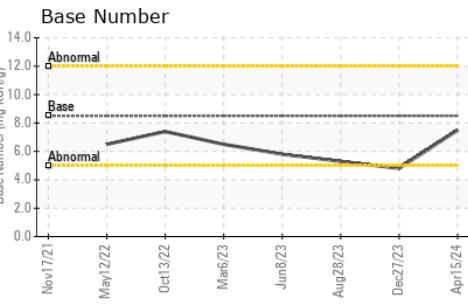
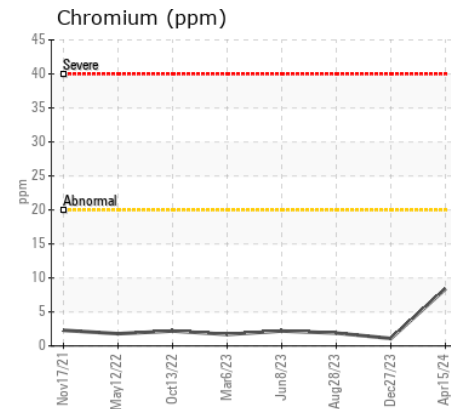
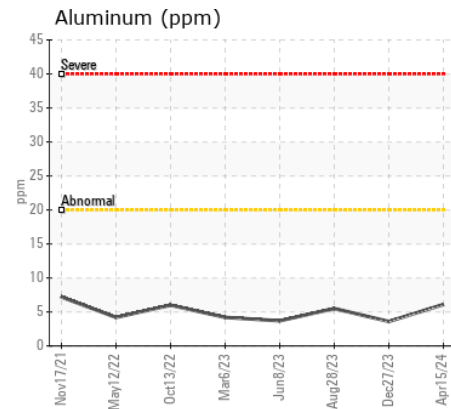
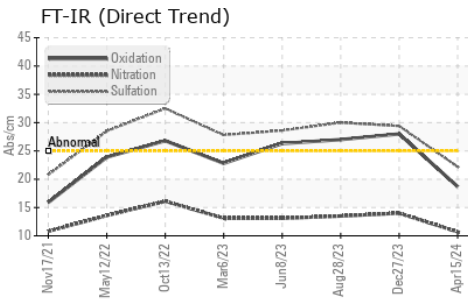
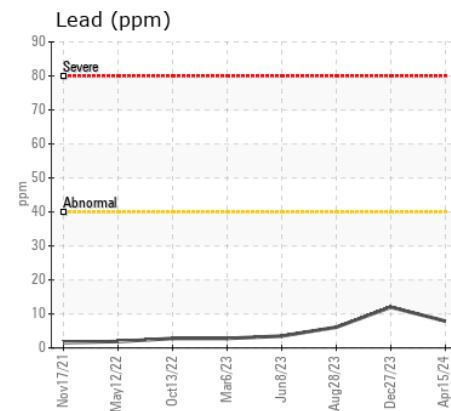
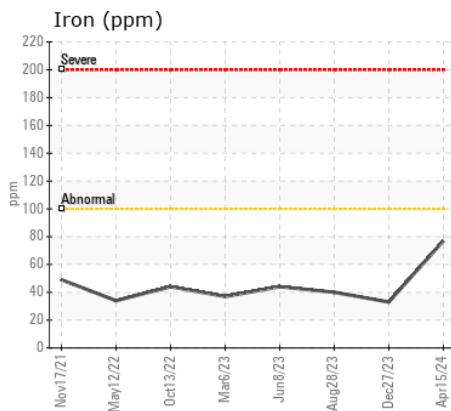
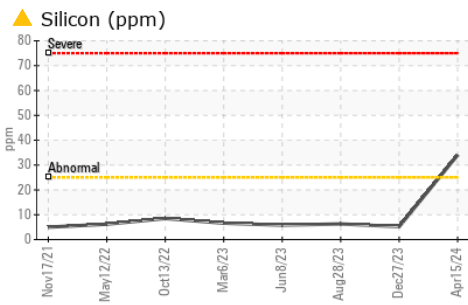
Elemental level of silicon (Si) above normal.

Silicon	ppm	ASTM D5185m	>25	▲ 34	5	6
Potassium	ppm	ASTM D5185m	>20	4	2	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.1	1.7	1.9
Nitration	Abs/cm	*ASTM D7624	>20	10.7	14.0	13.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	29.4	30.0
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

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.

Sodium	ppm	ASTM D5185m	>216	12	0	1
Boron	ppm	ASTM D5185m	250	1	7	5
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	65	59	61
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m	450	962	912	949
Calcium	ppm	ASTM D5185m	3000	1170	1183	1229
Phosphorus	ppm	ASTM D5185m	1150	1162	1085	1079
Zinc	ppm	ASTM D5185m	1350	1347	1362	1336
Sulfur	ppm	ASTM D5185m	4250	3449	2988	3424
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	28.0	27.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.5	4.8	5.3
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	14.4	14.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0893934 **Received** : 17 Apr 2024
Lab Number : 06152532 **Tested** : 18 Apr 2024
Unique Number : 10982610 **Diagnosed** : 22 Apr 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

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)

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