



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
BOWERMAN - ORANGE COUNTY CA
Machine Id
CATERPILLAR BOW 3
Component
Biogas Engine
Fluid
MOBIL PEGASUS 605 (480 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0848279	WC0848263	WC0848258
Sample Date		Client Info		09 Jan 2024	27 Nov 2023	02 Nov 2023
Machine Age	hrs	Client Info		62660	61658	61058
Oil Age	hrs	Client Info		1816	814	214
Filter Age	hrs	Client Info		1816	814	214
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	2	1	0
Chromium	ppm	ASTM D5185m	>5	<1	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	1	2
Lead	ppm	ASTM D5185m	>20	<1	0	0
Copper	ppm	ASTM D5185m	>15	<1	<1	0
Tin	ppm	ASTM D5185m	>5	4	2	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

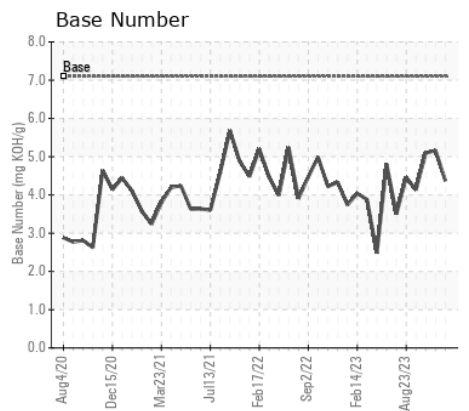
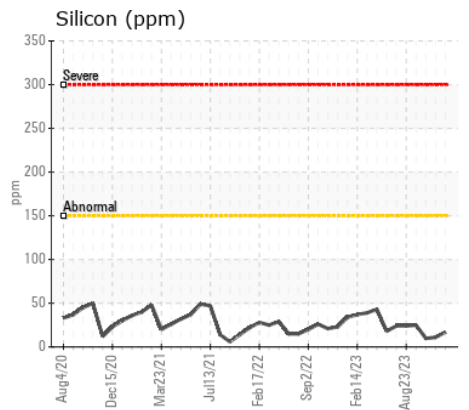
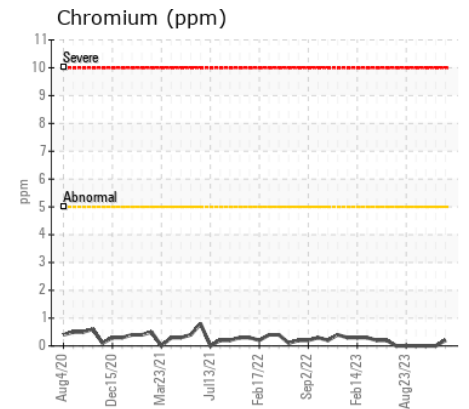
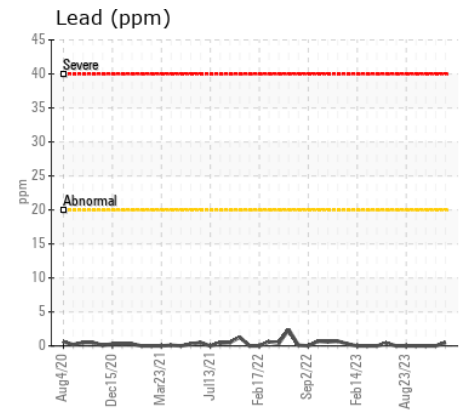
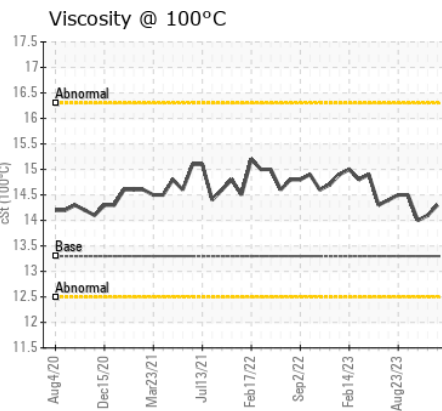
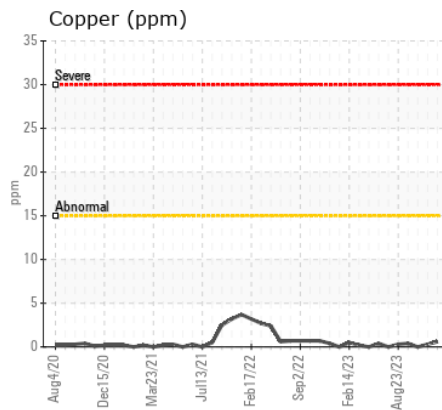
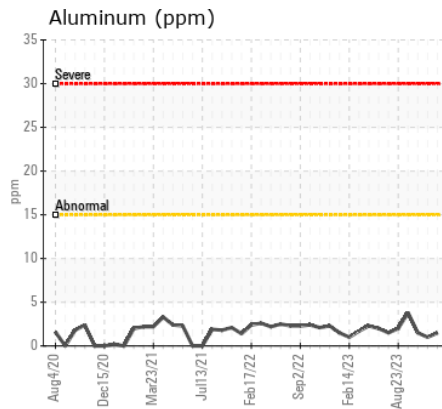
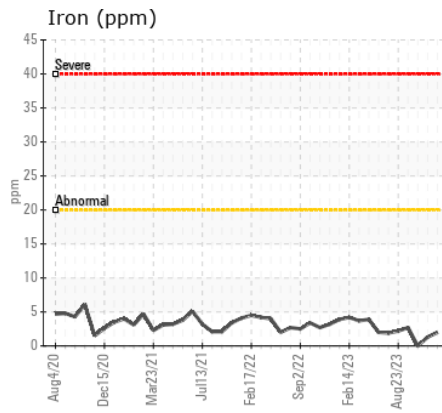
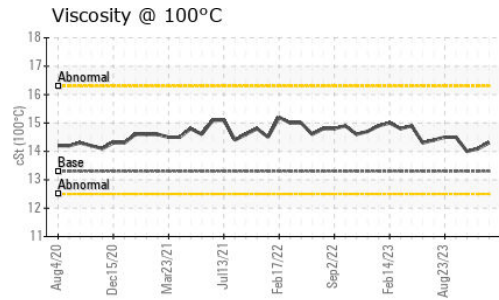
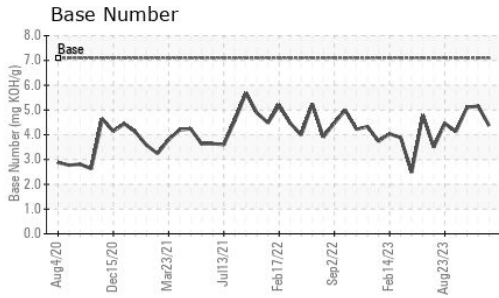
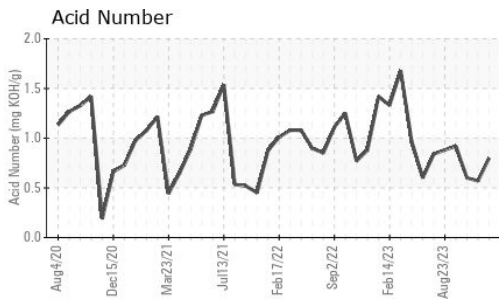
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>150	17	11	10
Potassium	ppm	ASTM D5185m	>20	<1	1	0
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	3.9	3.5	3.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.6	16.5	16.2
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		67	92	133
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		4	4	6
Calcium	ppm	ASTM D5185m		1521	1414	1552
Phosphorus	ppm	ASTM D5185m		448	380	441
Zinc	ppm	ASTM D5185m		528	489	547
Sulfur	ppm	ASTM D5185m		4156	3437	3598
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.6	9.7	9.1
Acid Number (AN)	mg KOH/g	ASTM D8045		0.80	0.57	0.60
Base Number (BN)	mg KOH/g	ASTM D2896	7.1	4.37	5.16	5.10
Visc @ 100°C	cSt	ASTM D445	13.3	14.3	14.1	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0848279
Lab Number : 06058833
Unique Number : 10830215
Test Package : MOB 2

Received : 11 Jan 2024
Diagnosed : 15 Jan 2024
Diagnostician : Jonathan Hester

MONTAUK ENERGY CAPITAL LLC (TEXAS) LP
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 HOUSTON, TX
 US 77032

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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)