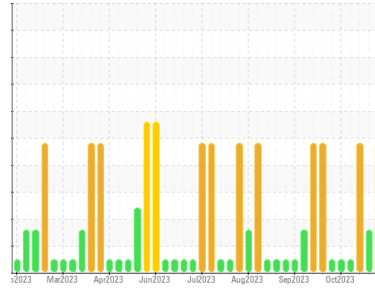




OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
SJNM02BE
Component
Biogas Engine
Fluid
CHEVRON HDAX 6500 LFG GAS ENGINE OIL (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0865657	WC0865652	WC0865668
Sample Date	Client Info		20 Nov 2023	16 Nov 2023	09 Nov 2023
Machine Age	hrs	Client Info	112099	112000	111831
Oil Age	hrs	Client Info	937	838	669
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			SEVERE	ABNORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >15	4	1	3
Chromium	ppm	ASTM D5185m >4	<1	0	<1
Nickel	ppm	ASTM D5185m >2	<1	0	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >5	0	0	<1
Aluminum	ppm	ASTM D5185m >6	2	2	2
Lead	ppm	ASTM D5185m >9	4	3	4
Copper	ppm	ASTM D5185m >6	2	1	2
Tin	ppm	ASTM D5185m >4	4	4	3
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	3	3
Barium	ppm	ASTM D5185m	0	0	6
Molybdenum	ppm	ASTM D5185m	4	2	4
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m	45	29	23
Calcium	ppm	ASTM D5185m	2064	2074	1993
Phosphorus	ppm	ASTM D5185m	281	319	334
Zinc	ppm	ASTM D5185m	390	405	367
Sulfur	ppm	ASTM D5185m	2541	2505	2757

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >181	227	197	202
Sodium	ppm	ASTM D5185m	0	<1	0
Potassium	ppm	ASTM D5185m >20	2	2	2

INFRA-RED

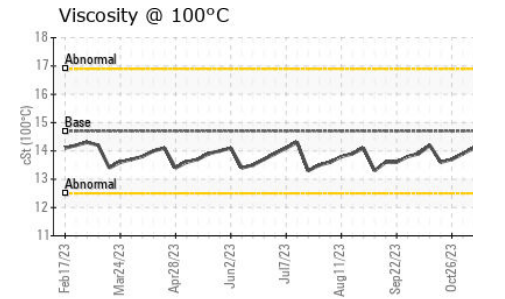
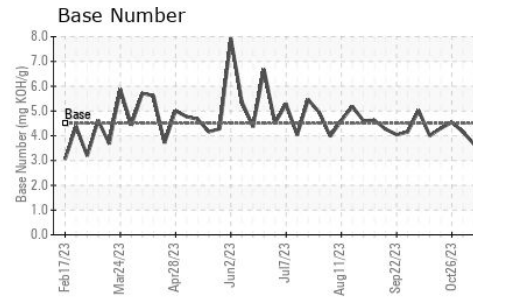
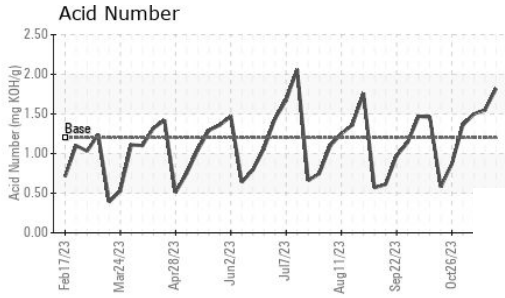
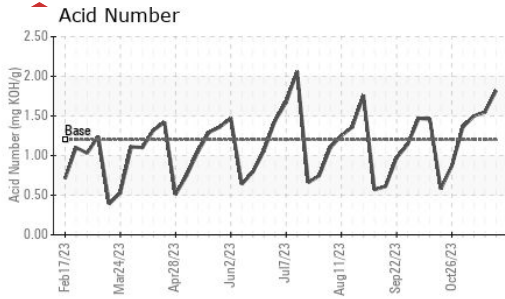
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	8.0	7.8	7.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.9	22.9	22.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.5	19.2	18.1
Acid Number (AN)	mg KOH/g	ASTM D8045 1.2	1.82	1.55	1.50
Base Number (BN)	mg KOH/g	ASTM D2896 4.5	4.25	3.69	3.66



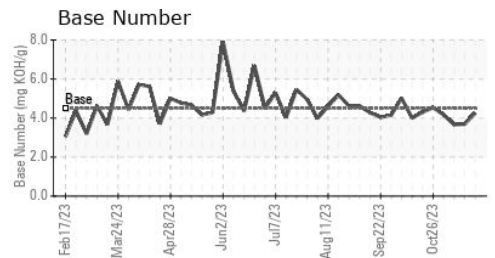
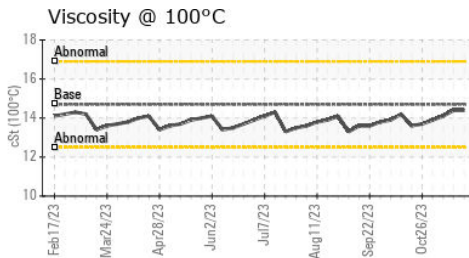
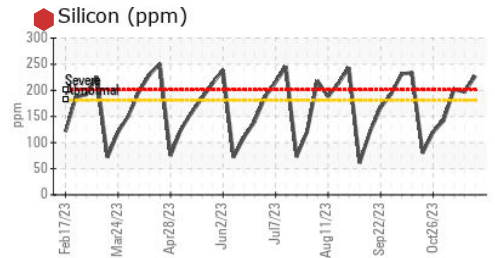
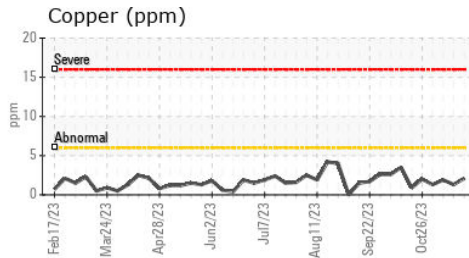
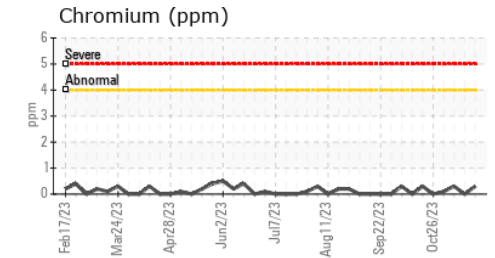
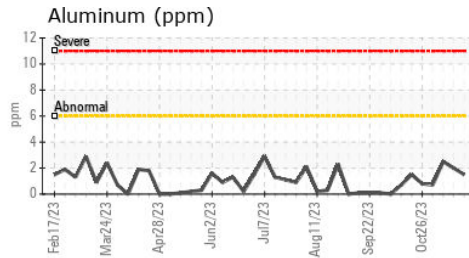
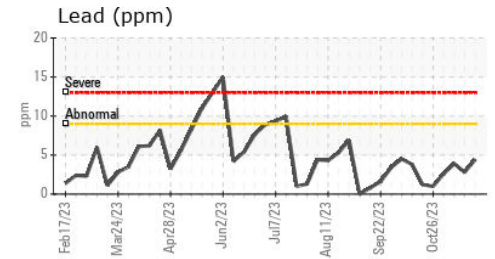
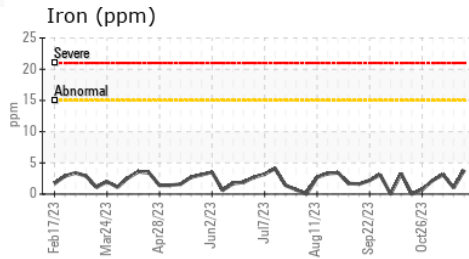
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.7	14.4	14.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0865657 Received : 24 Nov 2023
 Lab Number : 06017517 Diagnosed : 29 Nov 2023
 Unique Number : 10756661 Diagnostician : Jonathan Hester
 Test Package : MOB 2

EDL NA Recips-South Jordan
 South Jordan Powerstation, 10473 S. Bacchus Hwy.
 South Jordan, UT
 US 84095
 Contact: Aaron Klein
 aaron.klein@edlenergy.com

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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