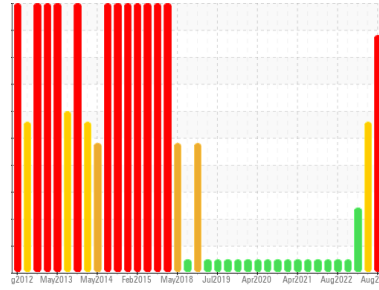


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / MUSKOGEE SAND
Machine Id
WL056
Component
Front Right Final Drive
Fluid
MOBIL MOBILTRANS HD 50 (--- GAL)

Sample Rating Trend



WATER



DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Bearing and/or bushing wear is indicated.

Contamination

There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0070430	PCA0087147	PCA0087176
Sample Date	Client Info		10 Aug 2023	06 Jun 2023	28 Feb 2023
Machine Age	hrs	Client Info	33775	33310	32585
Oil Age	hrs	Client Info	1190	725	1760
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			SEVERE	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >800	577	424	117
Chromium	ppm	ASTM D5185m >10	2	2	<1
Nickel	ppm	ASTM D5185m >5	2	<1	<1
Titanium	ppm	ASTM D5185m >15	3	2	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >75	56	34	15
Lead	ppm	ASTM D5185m >10	13	9	8
Copper	ppm	ASTM D5185m >75	129	102	38
Tin	ppm	ASTM D5185m >8	9	8	1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	3	2	2
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	1	1	<1
Manganese	ppm	ASTM D5185m	7	5	1
Magnesium	ppm	ASTM D5185m	27	25	17
Calcium	ppm	ASTM D5185m	3122	3398	2410
Phosphorus	ppm	ASTM D5185m	958	939	966
Zinc	ppm	ASTM D5185m	1192	1232	1166
Sulfur	ppm	ASTM D5185m	4837	5943	5788

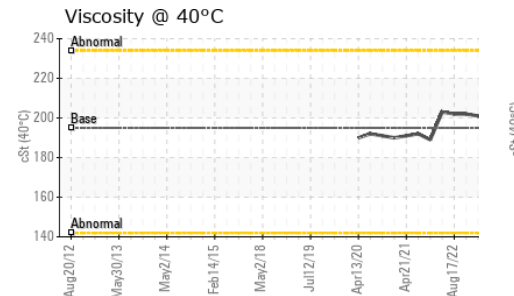
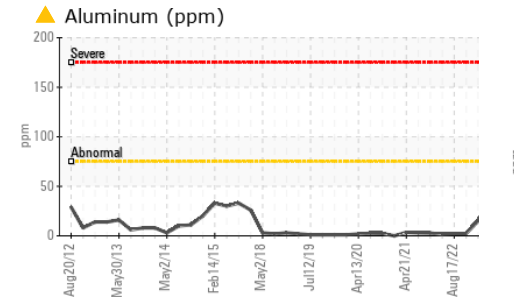
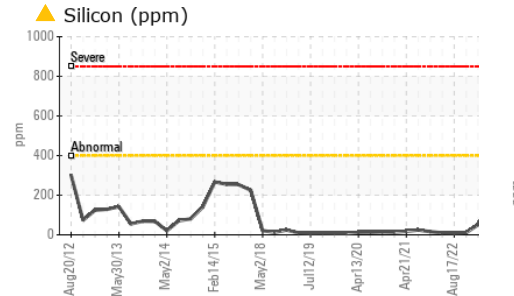
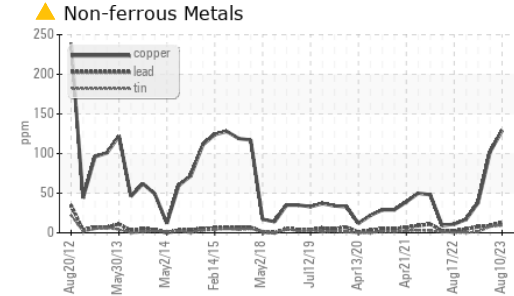
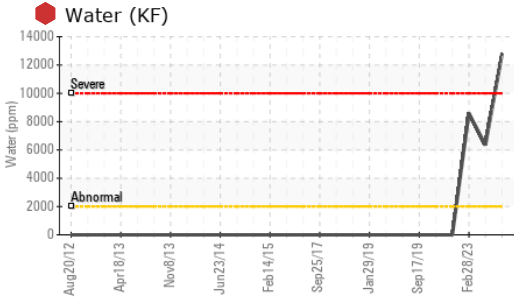
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >400	252	137	51
Sodium	ppm	ASTM D5185m	14	8	3
Potassium	ppm	ASTM D5185m >20	16	9	6
Water	%	ASTM D6304 >0.2	1.28	0.635	0.858
ppm Water	ppm	ASTM D6304 >2000	12800	6350	8580

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	MODER	NONE
Yellow Metal	scalar	*Visual NONE	NONE	NONE	LIGHT
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	MODER	NONE
Debris	scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	LAYRD	NORML	MILKY
Odor	scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	0.2%	0.2%	0.2%
Free Water	scalar	*Visual	NEG	NEG	NEG

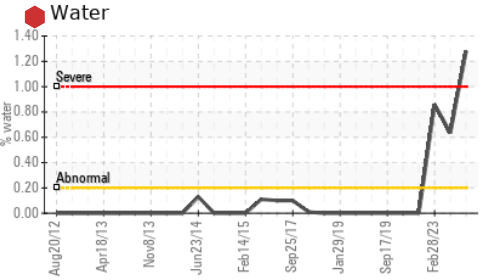
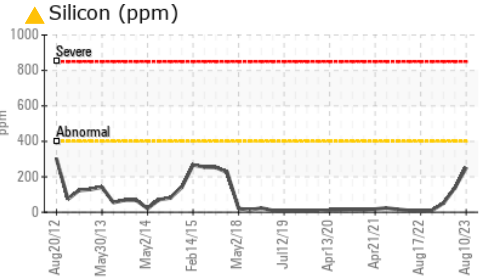
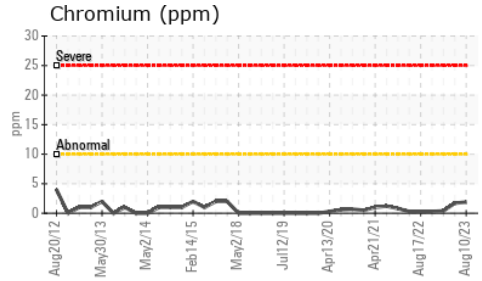
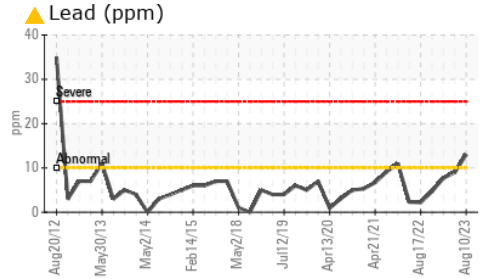
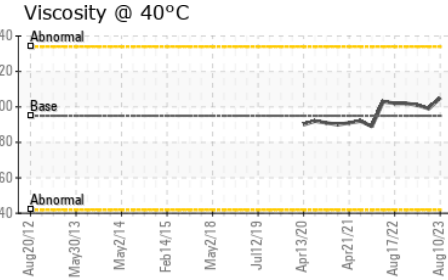
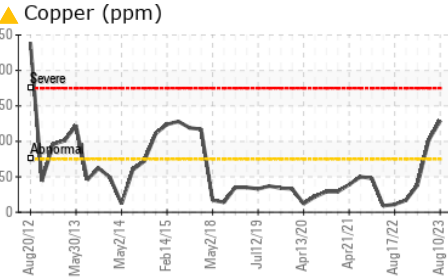
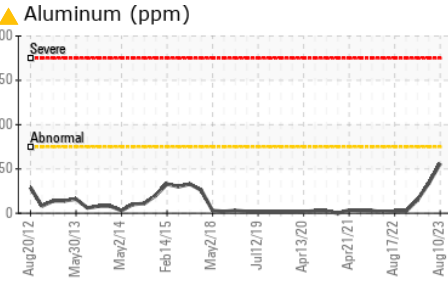
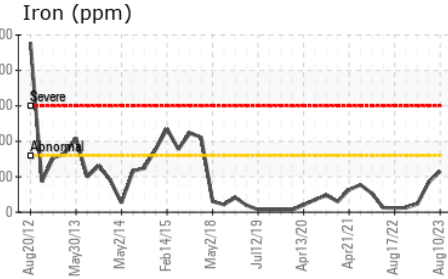
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	195	205	199	201

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0070430 **Received** : 04 Oct 2023
Lab Number : 05969912 **Diagnosed** : 09 Oct 2023
Unique Number : 10681862 **Diagnostician** : Sean Felton
Test Package : MOB 1 (Additional Tests: KF)

Kemp Quarries - Muskogee Sand
 3395 W 50th St N
 Porter, OK
 US 74454
 Contact: MUSCOGEE NOTIFICATIONS
 muskogee@muskogeessand.com

Certificate L2367
 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)