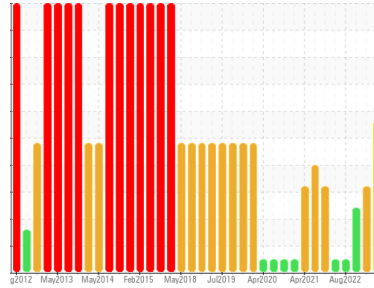


OIL ANALYSIS REPORT



Area
KEMP QUARRIES / MUSKOGEE SAND
Machine Id
WL056
Component
Rear 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

All component wear rates are normal.

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		PCA0087146	PCA0087174	PCA0070546
Sample Date	Client Info		06 Jun 2023	28 Feb 2023	21 Dec 2022
Machine Age	hrs	Client Info	33310	32585	32175
Oil Age	hrs	Client Info	725	1760	1350
Oil Changed	Client Info		Not Chngd	Changed	Not Chngd
Sample Status			SEVERE	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	753	777	504
Chromium	ppm	ASTM D5185m >10	3	3	2
Nickel	ppm	ASTM D5185m	1	2	1
Titanium	ppm	ASTM D5185m	2	3	1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	52	45	24
Lead	ppm	ASTM D5185m >25	5	6	7
Copper	ppm	ASTM D5185m >50	62	90	75
Tin	ppm	ASTM D5185m >10	5	4	3
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	4	7	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	7	8	7
Manganese	ppm	ASTM D5185m	8	8	5
Magnesium	ppm	ASTM D5185m	79	75	68
Calcium	ppm	ASTM D5185m	2950	2120	1964
Phosphorus	ppm	ASTM D5185m	938	893	820
Zinc	ppm	ASTM D5185m	1161	1057	1068
Sulfur	ppm	ASTM D5185m	6114	6810	7044

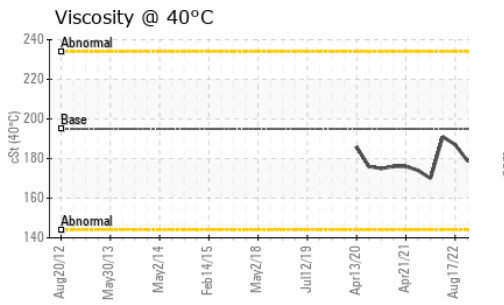
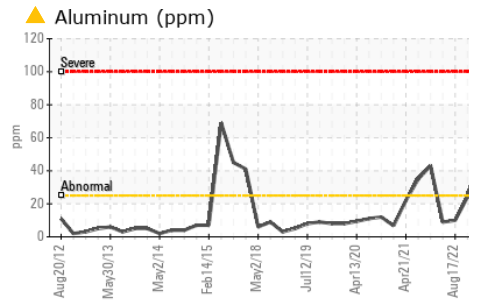
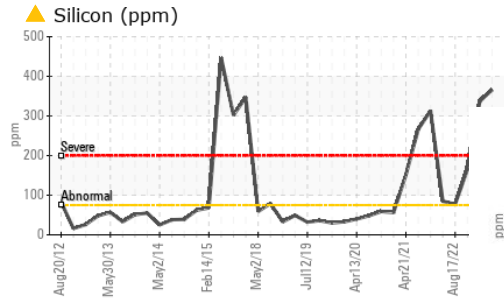
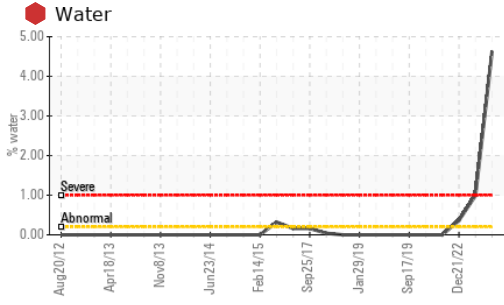
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	366	337	165
Sodium	ppm	ASTM D5185m	14	9	6
Potassium	ppm	ASTM D5185m >20	22	20	9
Water	%	ASTM D6304 >0.2	4.63	0.989	0.365
ppm Water	ppm	ASTM D6304 >2000	46300	9890	3650

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	LIGHT	NONE	LIGHT
Yellow Metal	scalar	*Visual NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	LIGHT	LIGHT
Debris	scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	NORML	MILKY	NORML
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

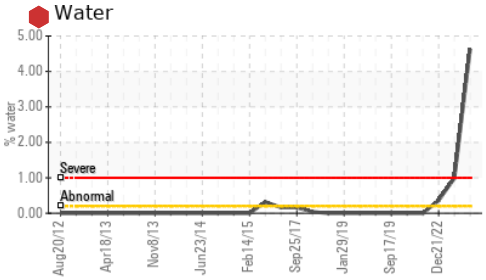
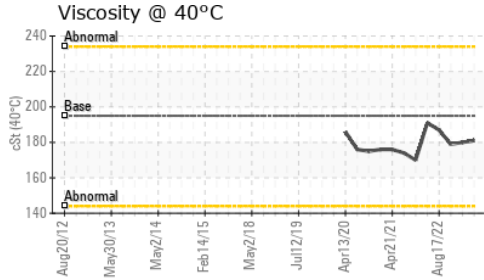
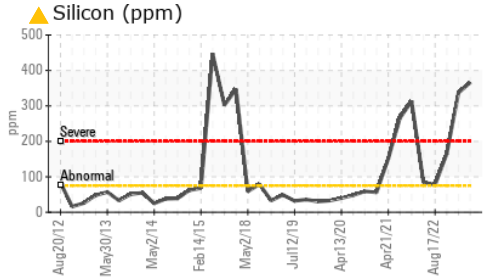
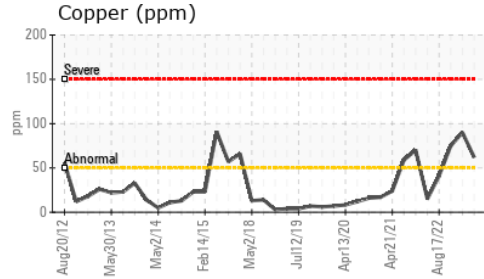
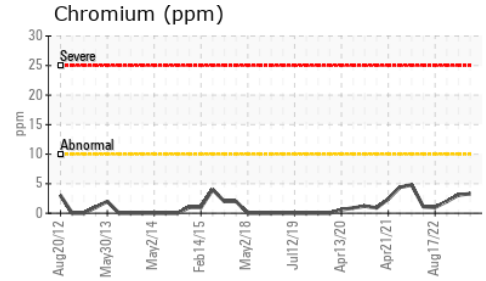
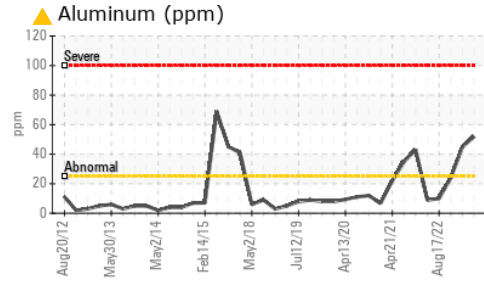
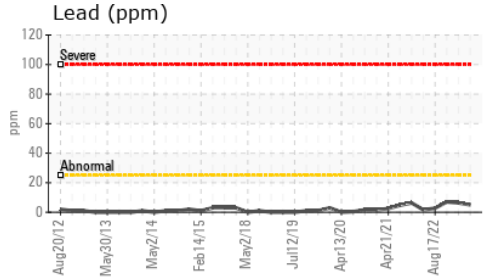
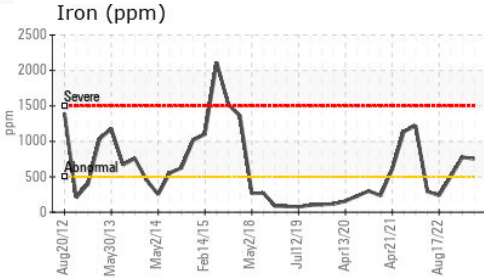
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	195	181	180	178.9

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0087146 **Received** : 15 Jun 2023
Lab Number : 05875156 **Diagnosed** : 20 Jun 2023
Unique Number : 10520259 **Diagnostician** : Jonathan Hester
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

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)

T:
F: