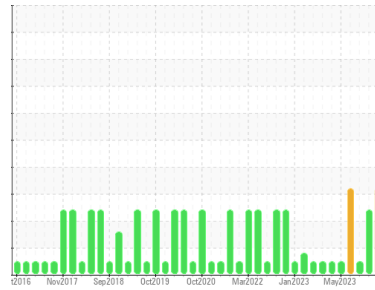# OIL ANALYSIS REPORT

WEAR CHECK

Sample Rating Trend

DIRT

Machine Id
H/R JAW CRUSHER 5011 DRIVE
Component
Gearbox
Fluid
SHELL OMALA S2 G 220 (45 GAL)

DIAGNOSIS

▲ Recommendation
We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

▲ Wear
Gear wear is indicated.

▲ Contamination
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number		Client Info	**WC0840623**	WC0840609	WC0760475
Sample Date		Client Info	**26 Sep 2023**	08 Sep 2023	14 Jul 2023
Machine Age	hrs	Client Info	**19351**	19242	18921
Oil Age	hrs	Client Info	**492**	382	62
Oil Changed		Client Info	**Changed**	Not Changd	Not Changd
Sample Status			**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	▲ **342**	187	65
Chromium	ppm	ASTM D5185m	>10	**3**	1	<1
Nickel	ppm	ASTM D5185m	>10	**2**	1	<1
Titanium	ppm	ASTM D5185m		**3**	2	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	▲ **28**	▲ 23	5
Lead	ppm	ASTM D5185m	>50	**<1**	0	0
Copper	ppm	ASTM D5185m	>200	**2**	<1	<1
Tin	ppm	ASTM D5185m	>10	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	4.4	**2**	<1	2
Barium	ppm	ASTM D5185m	0.0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	<1	<1
Manganese	ppm	ASTM D5185m		**5**	3	<1
Magnesium	ppm	ASTM D5185m	0	**5**	6	0
Calcium	ppm	ASTM D5185m	0	**18**	26	<1
Phosphorus	ppm	ASTM D5185m	215	**310**	291	294
Zinc	ppm	ASTM D5185m	0	**0**	4	0
Sulfur	ppm	ASTM D5185m	7039	**11869**	11667	11564

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	▲ **92**	▲ 74	25
Sodium	ppm	ASTM D5185m		**10**	7	0
Potassium	ppm	ASTM D5185m	>20	**8**	6	2

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	**212**	211	212

OIL ANALYSIS REPORT

Ferrous Alloys

Legend: iron, chromium, nickel
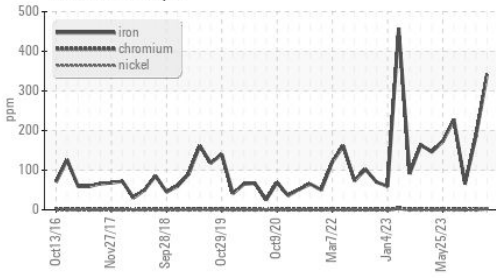
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS

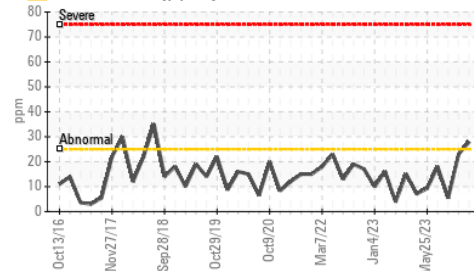### Silicon (ppm)
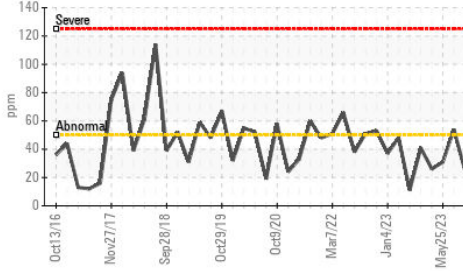
Iron (ppm)
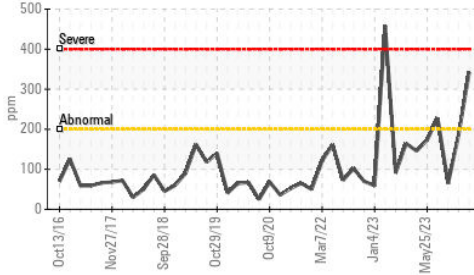
Lead (ppm)
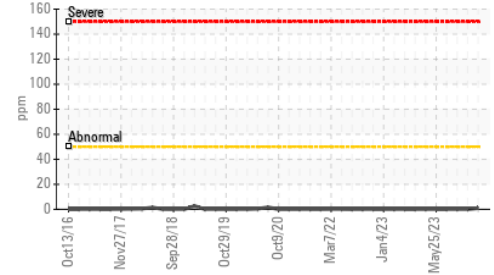
Aluminum (ppm)
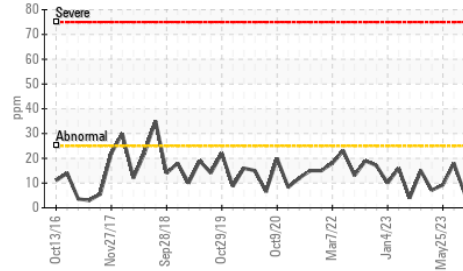
Aluminum (ppm)

Chromium (ppm)
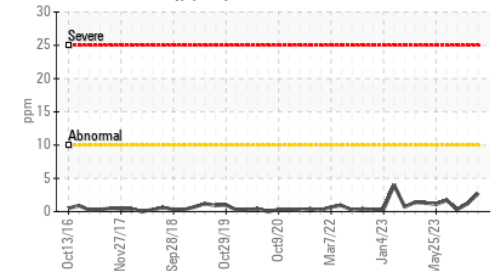
Viscosity @ 40°C
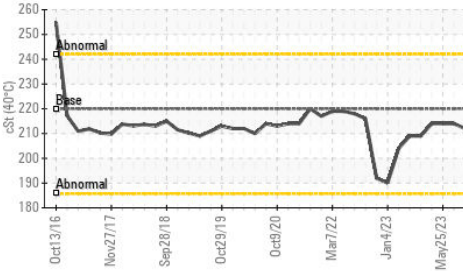
Copper (ppm)
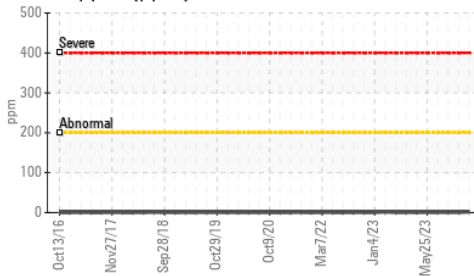
Silicon (ppm)
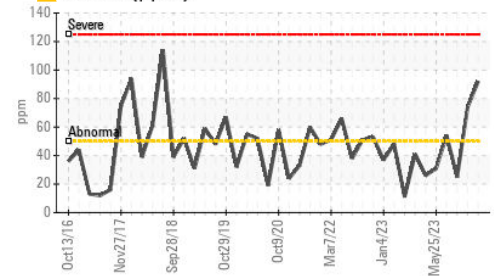
Viscosity @ 40°C

Additives

Legend: calcium, phosphorus, zinc