

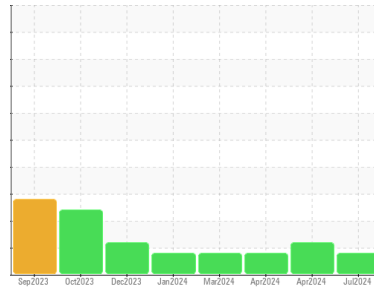


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR R1600 SCP219
 Component
Diesel Engine
 Fluid
MOBIL 15W40 (--- GAL)

Sample Rating Trend



FUEL



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

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		WC0960982	WC0931357	WC0928368
Sample Date	Client Info		07 Jul 2024	19 Apr 2024	06 Apr 2024
Machine Age	hrs	Client Info	4484	3618	3621
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			MARGINAL	ABNORMAL	MARGINAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	28	16	30
Chromium	ppm	ASTM D5185(m)	>20	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>25	1	1	2
Lead	ppm	ASTM D5185(m)	>40	6	4	4
Copper	ppm	ASTM D5185(m)	>330	14	19	4
Tin	ppm	ASTM D5185(m)	>15	2	2	<1
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		33	31	33
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)		43	40	40
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		542	513	516
Calcium	ppm	ASTM D5185(m)		1815	1769	1782
Phosphorus	ppm	ASTM D5185(m)		734	709	729
Zinc	ppm	ASTM D5185(m)		931	870	896
Sulfur	ppm	ASTM D5185(m)		2062	1964	2163
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

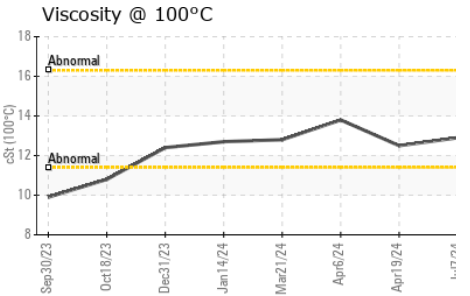
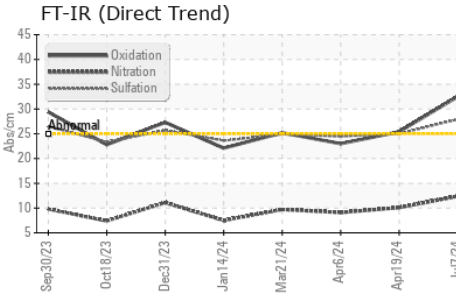
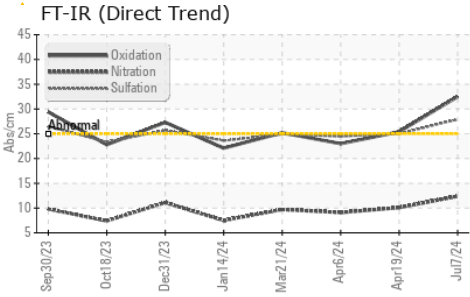
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	4	3	5
Sodium	ppm	ASTM D5185(m)	>118	5	4	3
Potassium	ppm	ASTM D5185(m)	>20	2	1	<1
Fuel	%	ASTM D7593*	>5	▲ 3.8	▲ 6.1	▲ 2.6

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.3	0.2	0.4
Nitration	Abs/cm	ASTM D7624*	>20	12.4	10.1	9.1
Sulfation	Abs./1mm	ASTM D7415*	>30	27.9	25.0	24.5



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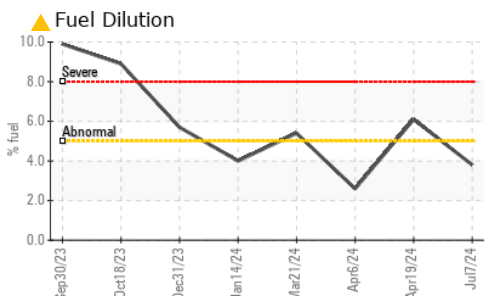
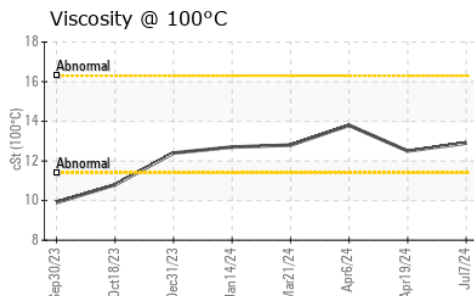
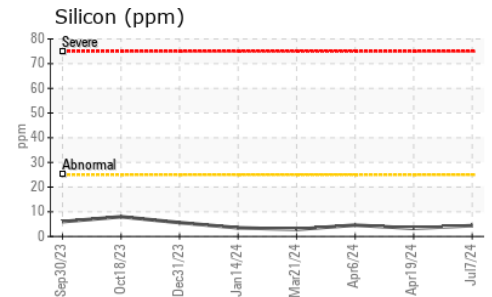
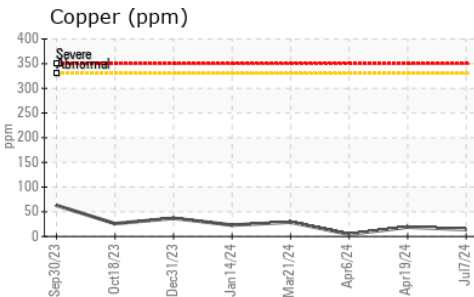
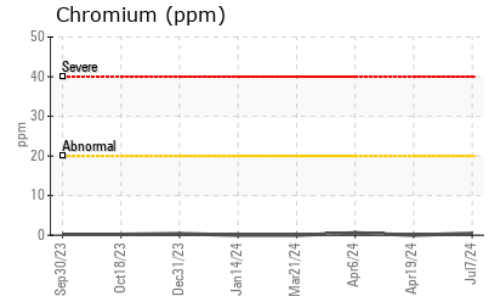
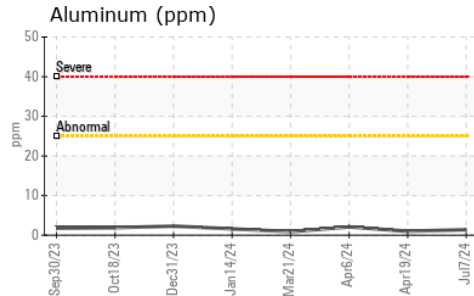
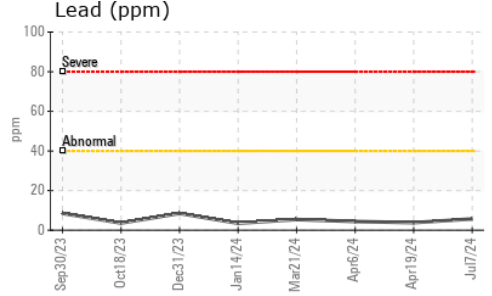
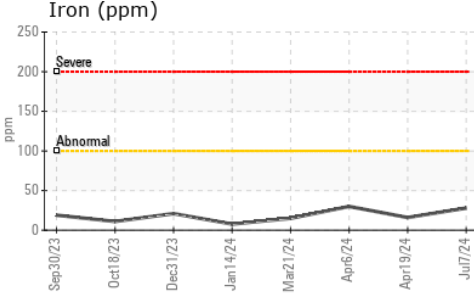


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	32.5	25.4	23.0

VISUAL	method	limit/base	current	history1	history2	
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 @ 100°C	cSt	ASTM D7279(m)	12.9	▲ 12.5	13.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0960982 **Received** : 10 Jul 2024
Lab Number : **02646947** **Tested** : 11 Jul 2024
Unique Number : 5812499 **Diagnosed** : 11 Jul 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PercentFuel)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.