



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Area  
**PCS - PORTABLE CRUSHING SERVICES**  
Machine Id  
**CATERPILLAR GN04 GENERATOR 04**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 SDE SAE 15W40 (150 QTS)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0014079</b>	KL0013021	KL0009689
Sample Date		Client Info		<b>10 Jan 2024</b>	03 Oct 2023	29 Jun 2023
Machine Age	hrs	Client Info		<b>31816</b>	31315	30786
Oil Age	hrs	Client Info		<b>50</b>	1630	1101
Filter Age	hrs	Client Info		<b>50</b>	1630	1101
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>ATTENTION</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>1</b>	13	6
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	0	<1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>14</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

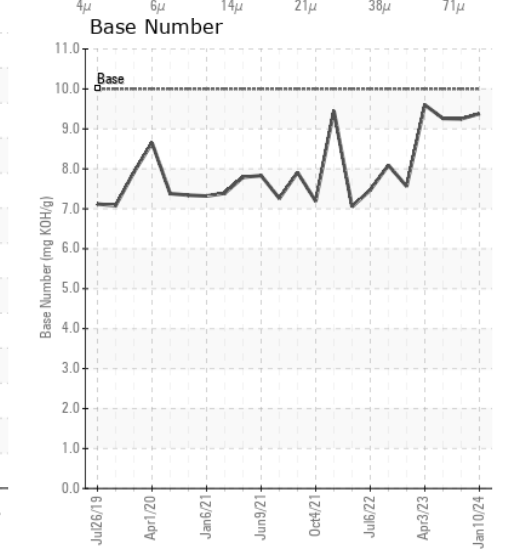
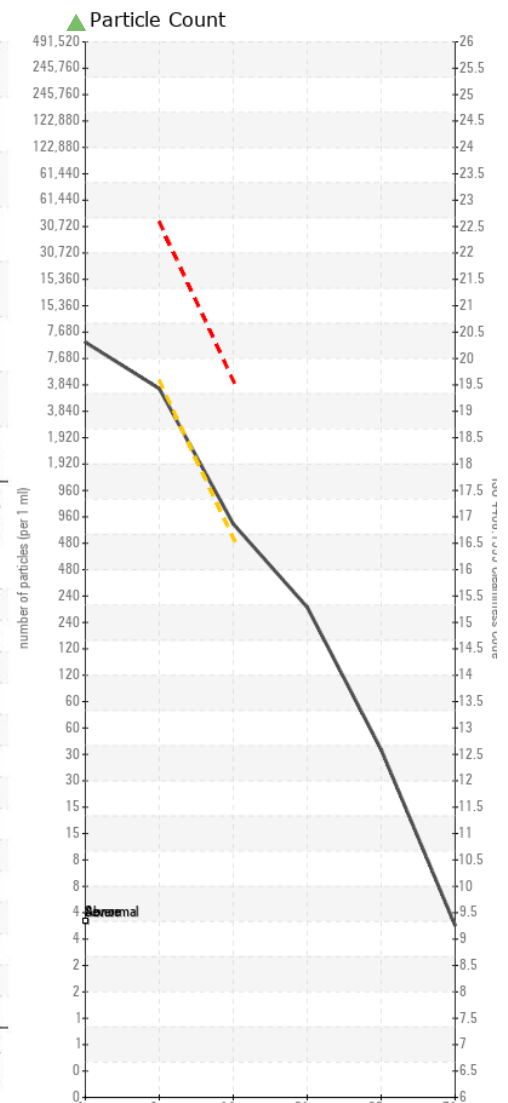
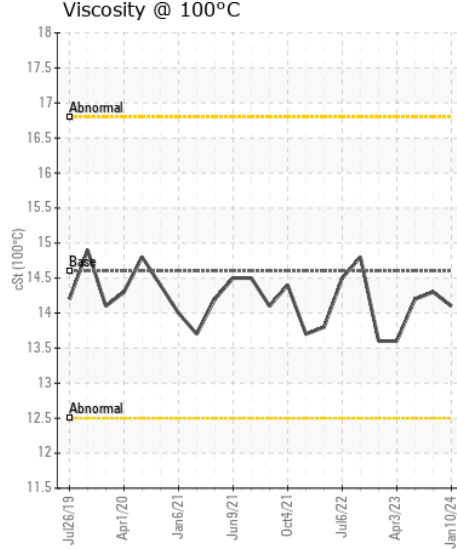
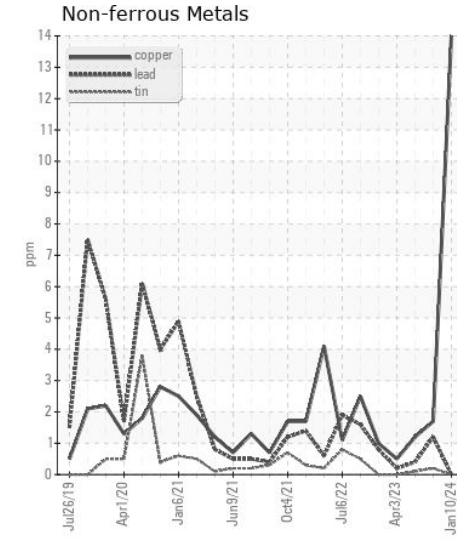
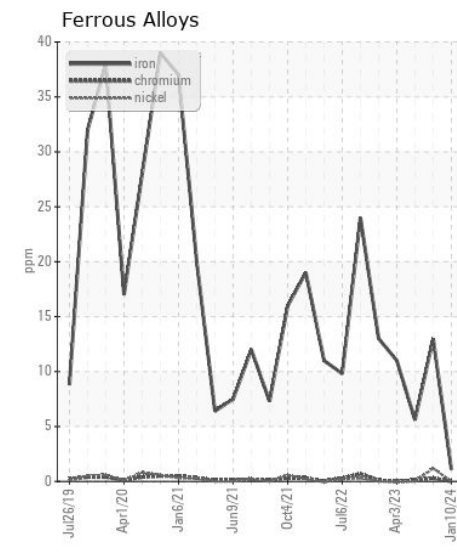
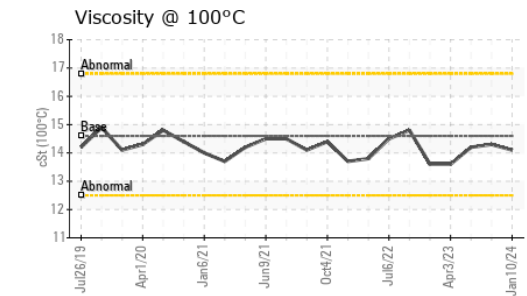
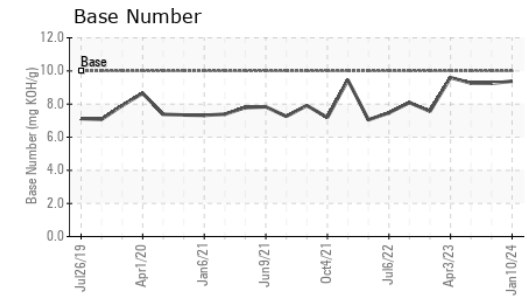
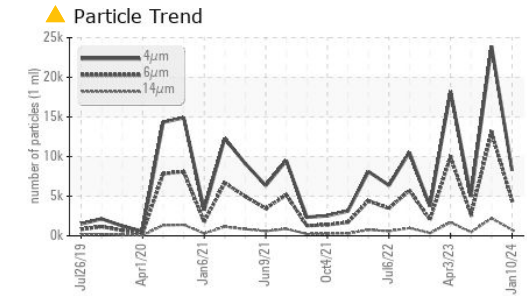
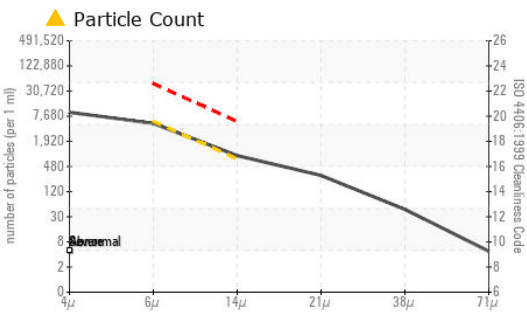
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	3	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.6</b>	7.5	5.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	22.3	20.1
Particles >4µm		ASTM D7647		<b>8273</b>	23907	4968
Particles >6µm		ASTM D7647	>5000	<b>4507</b>	▲ 13023	2706
Particles >14µm		ASTM D7647	>640	▲ <b>767</b>	▲ 2216	461
Particles >21µm		ASTM D7647	>160	▲ <b>258</b>	▲ 747	155
Particles >38µm		ASTM D7647	>40	<b>40</b>	▲ 115	24
Particles >71µm		ASTM D7647	>10	<b>4</b>	▲ 12	2
Oil Cleanliness		ISO 4406 (c)	>19/16	▲ <b>19/17</b>	▲ 21/18	19/16
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>40</b>	18	5
Boron	ppm	ASTM D5185m		<b>381</b>	327	463
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>90</b>	104	93
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>361</b>	410	381
Calcium	ppm	ASTM D5185m		<b>1361</b>	1454	1382
Phosphorus	ppm	ASTM D5185m	760	<b>1002</b>	1096	994
Zinc	ppm	ASTM D5185m	800	<b>1216</b>	1366	1169
Sulfur	ppm	ASTM D5185m	3000	<b>3588</b>	3610	3456
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	17.4	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>9.38</b>	9.25	9.26
Visc @ 100°C	cSt	ASTM D445	14.6	<b>14.1</b>	14.3	14.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0014079 **Received** : 16 Jan 2024  
**Lab Number** : 06061361 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10832743 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

**PIKES PEAK PERFORMANCE PRODUCTS**  
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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)