



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area  
**PCS - PORTABLE CRUSHING SERVICES**  
Machine Id  
**CASE SKIDSTEER LD18 - PCS**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON DELO 400 SDE SAE 15W40 (--- 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>KL0013963</b>	KL0013076	KL0009674
Sample Date		Client Info		<b>09 Jan 2024</b>	03 Oct 2023	29 Jun 2023
Machine Age	hrs	Client Info		<b>2080</b>	1682	1434
Oil Age	hrs	Client Info		<b>50</b>	733	485
Filter Age	hrs	Client Info		<b>50</b>	733	485
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>ABNORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	28	14
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>7</b>	6	6
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
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**

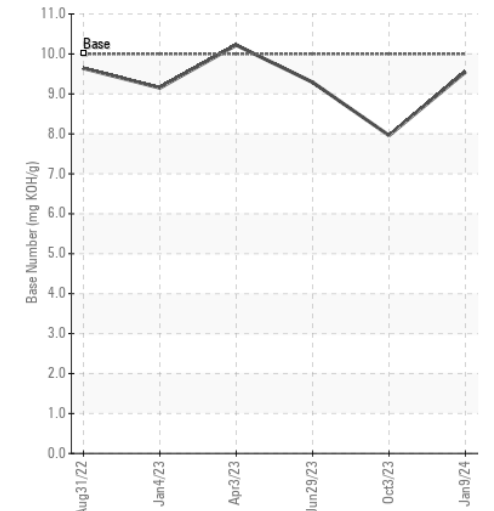
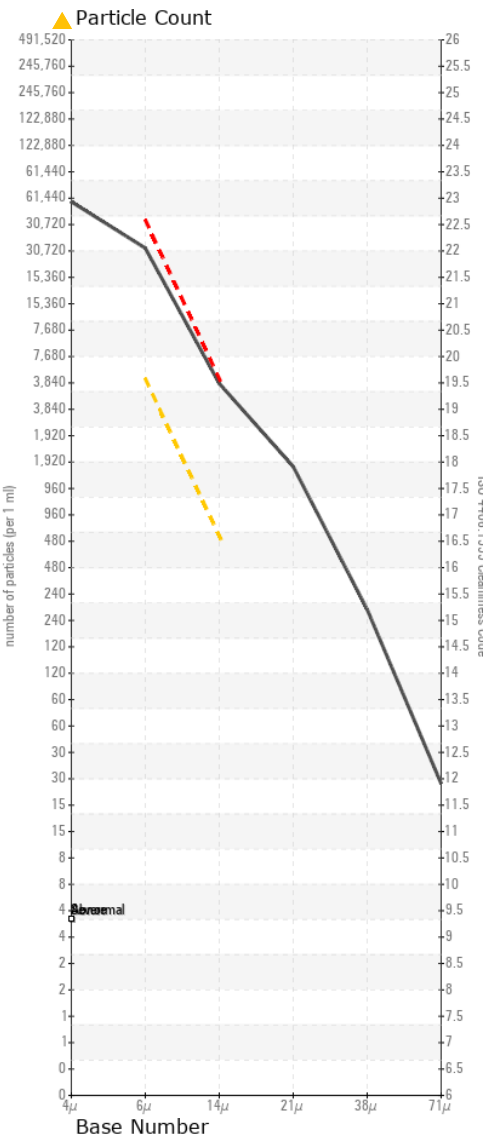
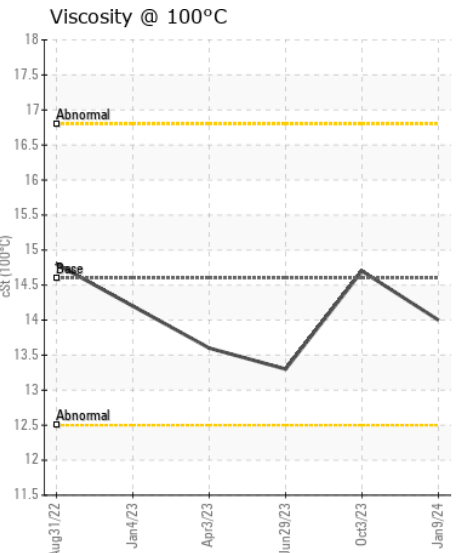
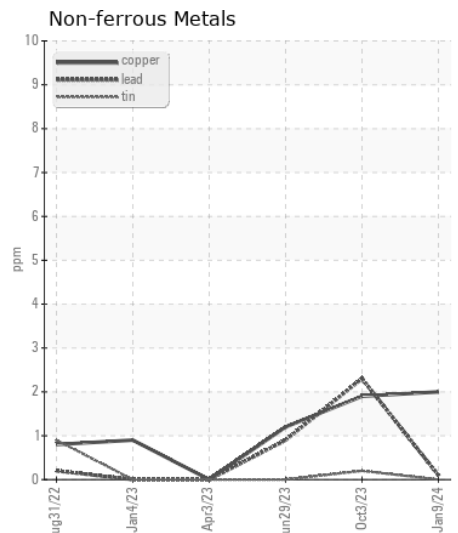
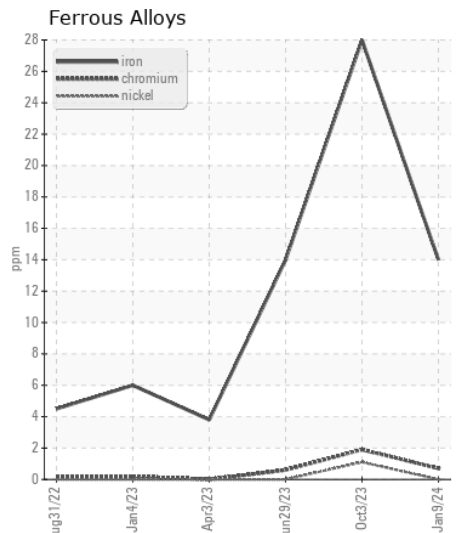
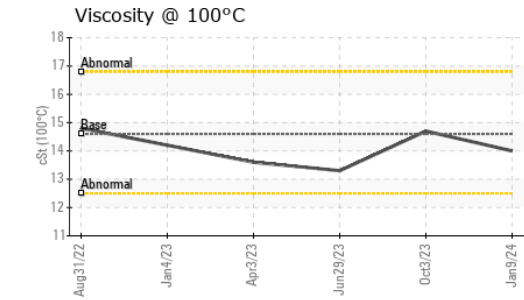
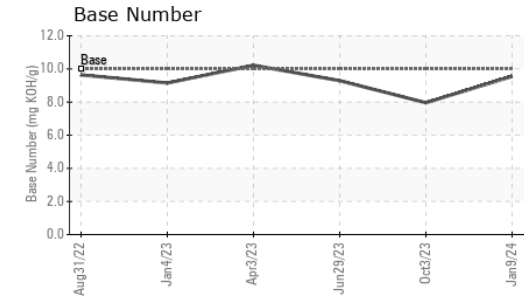
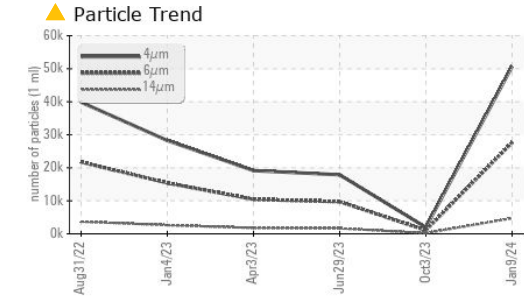
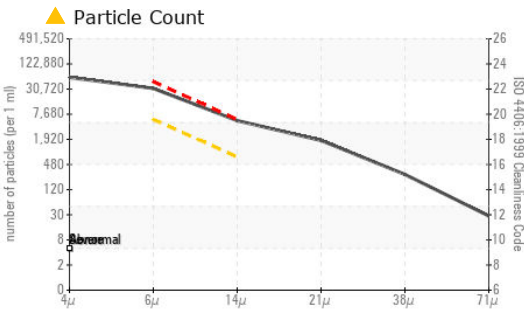
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	10	8
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	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>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	15.5	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.1</b>	33.2	23.0
Particles >4µm		ASTM D7647		<b>50684</b>	1958	17878
Particles >6µm		ASTM D7647	>5000	<b>▲ 27611</b>	1066	▲ 9739
Particles >14µm		ASTM D7647	>640	<b>▲ 4699</b>	181	▲ 1657
Particles >21µm		ASTM D7647	>160	<b>▲ 1583</b>	61	▲ 558
Particles >38µm		ASTM D7647	>40	<b>▲ 244</b>	9	▲ 86
Particles >71µm		ASTM D7647	>10	<b>▲ 25</b>	1	9
Oil Cleanliness		ISO 4406 (c)	>19/16	<b>▲ 22/19</b>	17/15	▲ 20/18
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>0</b>	0	0
Boron	ppm	ASTM D5185m		<b>277</b>	282	403
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>68</b>	85	104
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>392</b>	393	509
Calcium	ppm	ASTM D5185m		<b>1468</b>	1508	1842
Phosphorus	ppm	ASTM D5185m	760	<b>907</b>	914	1207
Zinc	ppm	ASTM D5185m	800	<b>1116</b>	1177	1414
Sulfur	ppm	ASTM D5185m	3000	<b>3384</b>	4401	6002
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>27.4</b>	47.4	22.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>9.55</b>	7.96	9.29
Visc @ 100°C	cSt	ASTM D445	14.6	<b>14.0</b>	14.7	13.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013963 **Received** : 16 Jan 2024  
**Lab Number** : 06061368 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10832750 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

**PIKES PEAK PERFORMANCE PRODUCTS**  
 7888 BULLET RD  
 PEYTON, CO  
 US 80831  
 Contact: SCOTT RIGGS  
 rriggs.pikespeakperformance@gmail.com  
 T: (303)434-0126  
 F: x:

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)