CONSTRUCTION EQUIPMENT
1001-504 VOLVO L120H 632415 - DIESEL ENGINE

Sample No: VCP449352
Oil Type: DIESEL ENGINE OIL SAE 40
Job No: 1001-504

STRONGCO EQUIPMENT INC.
1640 ENTERPRISE ROAD
MISSISSAUGA, ON
CA L4W 4L4
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SAMPLE INFORMATION

Sample Number		**VCP449352**	VCP349517	VCP334277	VCP334485
Sample Date		**15 Mar 2024**	04 May 2022	07 Mar 2022	05 Oct 2021
Machine Hours		**9530**	8499	8050	7010
Oil Hours		**0**	0	0	0
Oil Changed		**Changed**	Changed	Changed	Changed
Sample Status		**SEVERE**	NORMAL	NORMAL	SEVERE

OIL CONDITION

Visc @ 100°C	cSt	**13.3**	13.6	13.7	13.3
Oxidation (PA)	%	**86**	86	86	85

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Soot %	%	**0.5**	0.1	0.1	0.5
Nitration (PA)	%	**68**	59	61	68
Sulfation (PA)	%	**63**	69	67	67
Glycol	%	**NEG**	NEG	NEG	NEG
Fuel	%	**<1.0**	<1.0	<1.0	<1.0
Silicon	ppm	**35**	9	9	23
Sodium	ppm	**3**	2	3	4
Potassium	ppm	**<1**	0	0	<1

WEAR METALS

Iron	ppm	**76**	11	15	29
Copper	ppm	**4**	<1	<1	2
Lead	ppm	**0**	0	<1	<1
Tin	ppm	**0**	<1	<1	<1
Aluminum	ppm	**131**	7	9	61
Chromium	ppm	**10**	<1	2	3
Molybdenum	ppm	**41**	40	40	40
Nickel	ppm	**18**	2	4	3
Titanium	ppm	**0**	0	0	<1
Silver	ppm	**0**	0	0	<1
Manganese	ppm	**0**	<1	<1	<1
Vanadium	ppm	**0**	0	0	0

ADDITIVES

Calcium	ppm	**1779**	1685	1692	1724
Magnesium	ppm	**520**	529	518	540
Zinc	ppm	**1104**	1153	1101	1139
Phosphorus	ppm	**916**	982	973	1018
Barium	ppm	**0**	0	0	0
Boron	ppm	**26**	39	44	30

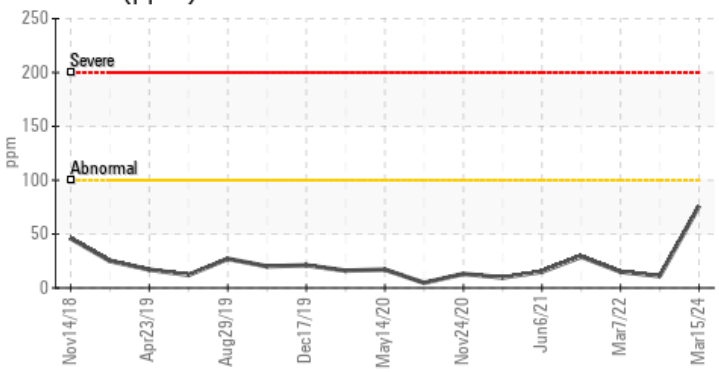
Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Aluminum ppm levels are severe. Chromium and nickel ppm levels are abnormal. Ring wear is indicated. Exhaust valve wear is indicated. Piston wear is indicated. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

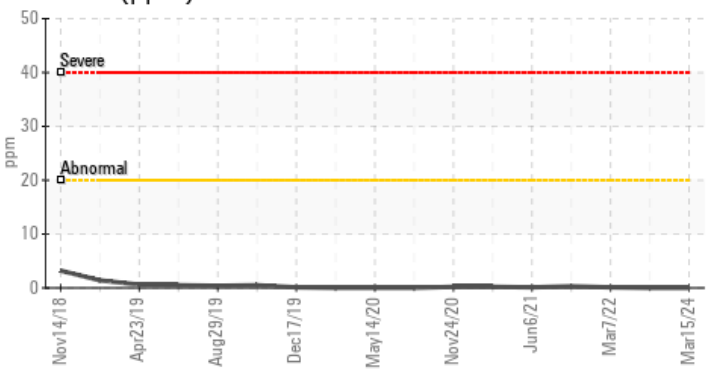
Depot: SHEMIS
Unique No: 5749056
Signed: Kevin Marson
Report Date: 22 Mar 2024

GRAPHS

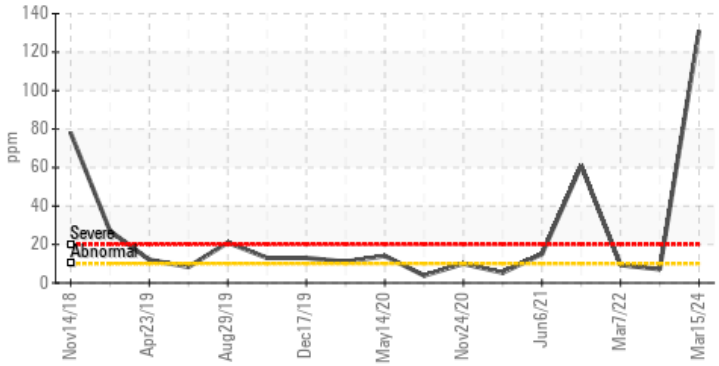
Iron (ppm)



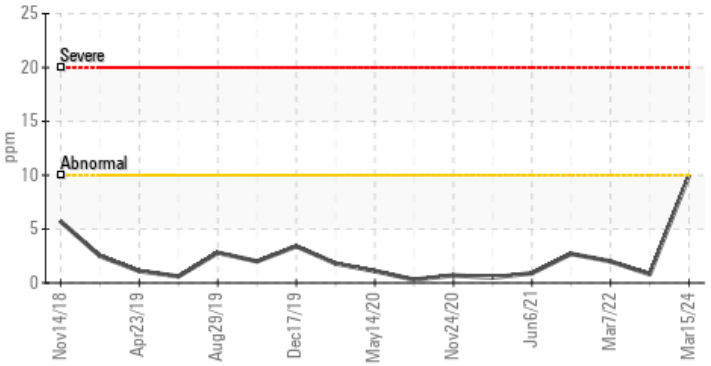
Lead (ppm)



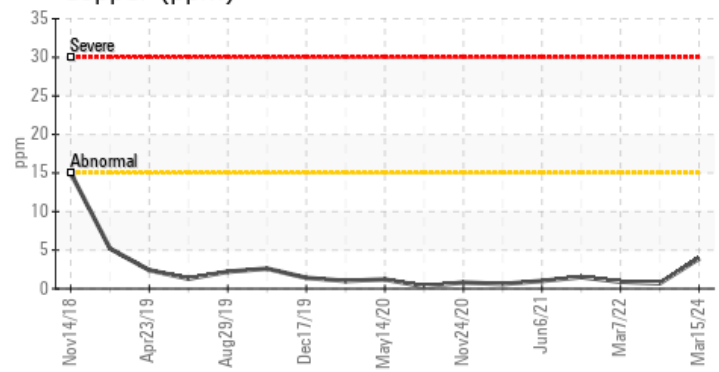
Aluminum (ppm)



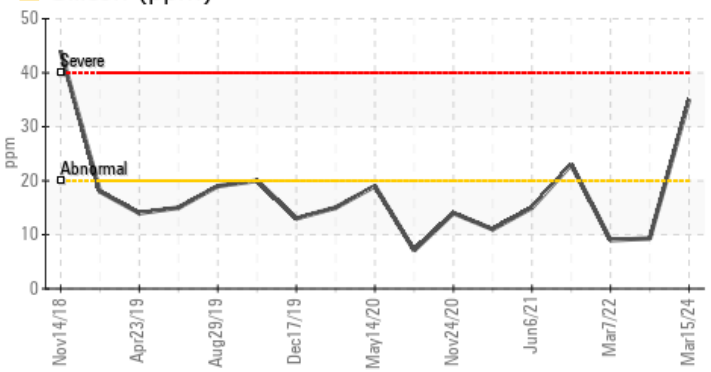
Chromium (ppm)



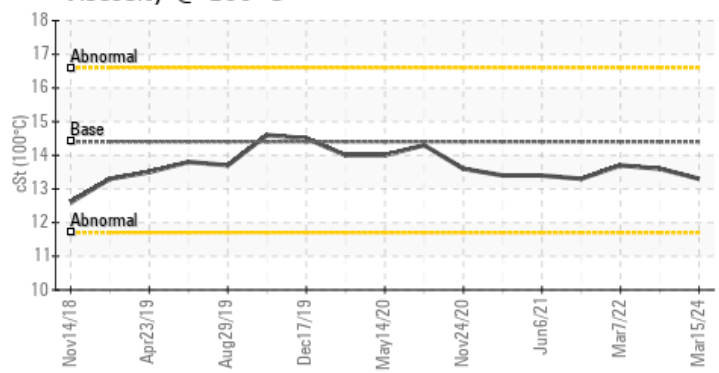
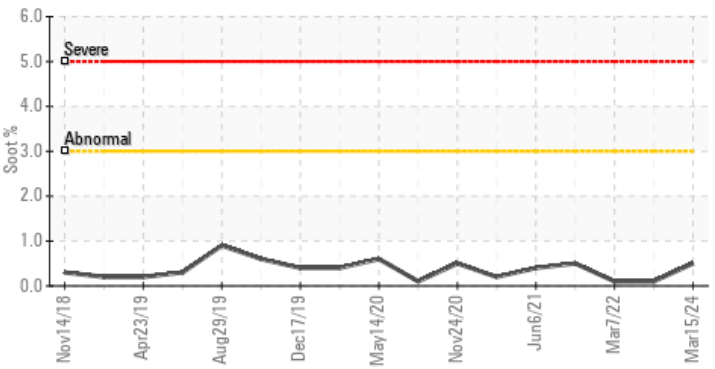
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %