CONSTRUCTION EQUIPMENT
VOLVO A45G 342617 - DIESEL ENGINE

Sample No: VCP424891
Oil Type: DIESEL ENGINE OIL SAE 40
Job No:

GLOVER CONSTRUCTION CO. INC.
4493 US HWY 301 N
PLEASANT HILL, NC
US 27866
Contact: BRENDA GAY
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SAMPLE INFORMATION

Sample Number		**VCP424891**	VCP296800	VCP216048	VCP181825
Sample Date		**18 Apr 2024**	27 Jun 2022	15 Jul 2021	07 Jul 2020
Machine Hours		**3185**	2218	843	468
Oil Hours		**483**	367	843	468
Oil Changed		**Changed**	Changed	N/A	Changed
Sample Status		**NORMAL**	NORMAL	NORMAL	NORMAL

OIL CONDITION

Visc @ 100°C	cSt	**12.3**	12.9	12.2	10.7
Base Number (BN)	mg KOH/g	**6.9**	7.6	---	---
Oxidation (PA)	%	**43**	38	42	87

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Soot %	%	**0.3**	0.2	0.2	0.1
Nitration (PA)	%	**64**	60	64	56
Sulfation (PA)	%	**50**	49	51	67
Glycol	%	**NEG**	NEG	NEG	NEG
Fuel	%	**<1.0**	<1.0	0.2	<1.0
Silicon	ppm	**5**	3	6	25
Sodium	ppm	**2**	1	1	4
Potassium	ppm	**<1**	0	0	0

WEAR METALS

Iron	ppm	**19**	10	14	23
Copper	ppm	**2**	9	215	94
Lead	ppm	**0**	<1	<1	3
Tin	ppm	**2**	1	1	<1
Aluminum	ppm	**3**	2	1	2
Chromium	ppm	**<1**	<1	<1	1
Molybdenum	ppm	**24**	4	9	40
Nickel	ppm	**3**	1	1	3
Titanium	ppm	**<1**	<1	<1	<1
Silver	ppm	**0**	0	0	0
Manganese	ppm	**<1**	<1	<1	2
Vanadium	ppm	**<1**	0	0	0

ADDITIVES

Calcium	ppm	**2005**	2268	2012	1632
Magnesium	ppm	**323**	49	96	475
Zinc	ppm	**1081**	990	1009	1058
Phosphorus	ppm	**939**	823	817	901
Barium	ppm	**0**	0	0	1
Boron	ppm	**3**	5	10	48

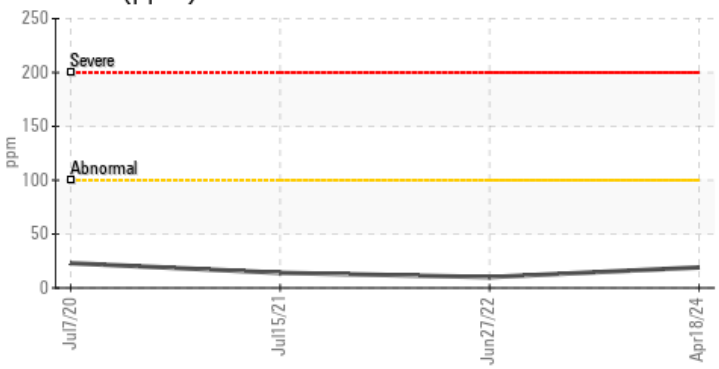
Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

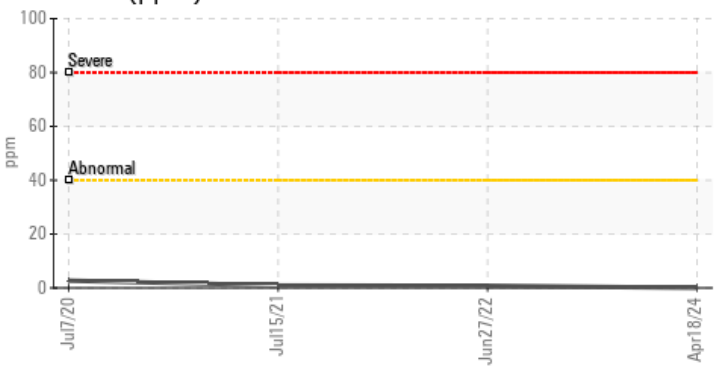
Depot: GLOPLE
Unique No: 11008810
Signed: Jonathan Hester
Report Date: 06 May 2024

GRAPHS

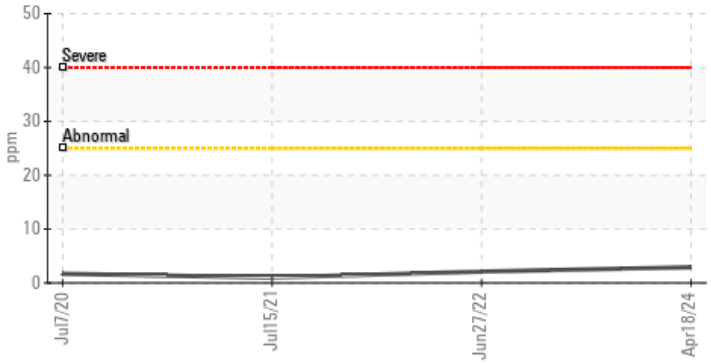
Iron (ppm)



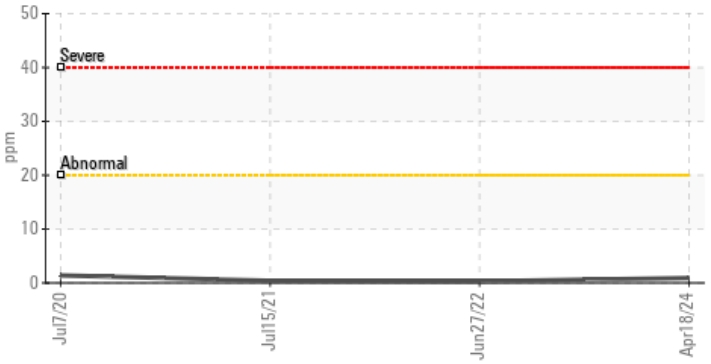
Lead (ppm)



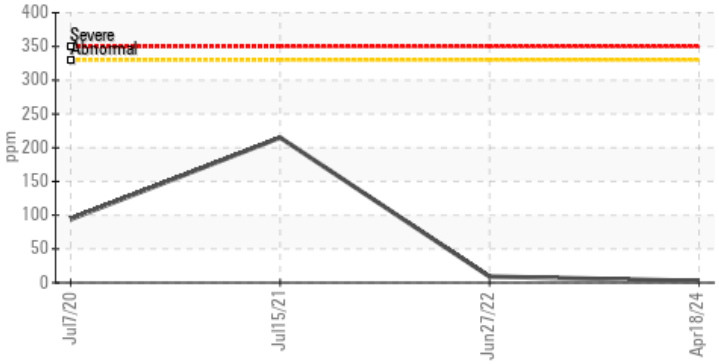
Aluminum (ppm)



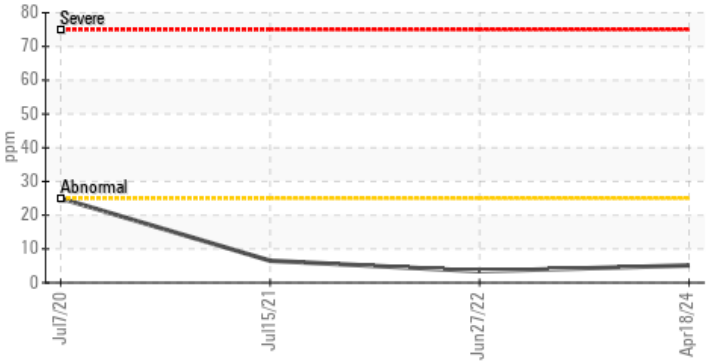
Chromium (ppm)



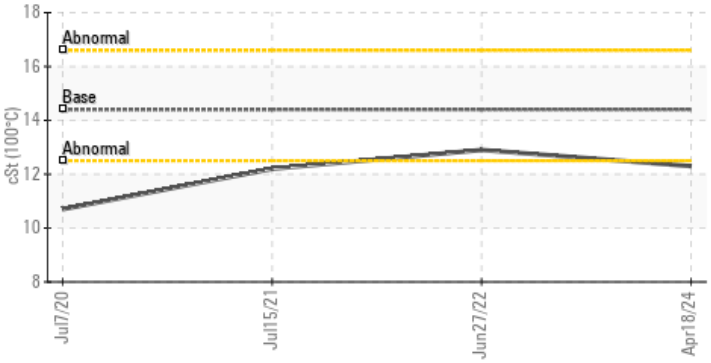
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number