CONSTRUCTION EQUIPMENT
11720 VOLVO EC290BLC 11337 - DIESEL ENGINE

Sample No: VCP439460
Oil Type: MOBIL 15W40
Job No: 11720

DYER QUARRY
P.O. BOX 188, 1275 ROCK HOLLOW ROAD
BIRDSBORO, PA
US 19508
Contact: MATT MCCLELLAND
matt.mcclelland@dyerquarry.com
T:
F: (610)582-2304

SAMPLE INFORMATION

Sample Number		**VCP439460**	VCP226994	VCP096656	VC257406
Sample Date		**18 Dec 2023**	17 Sep 2018	03 Mar 2010	24 Jul 2006
Machine Hours		**1280**	8260	3935	1778
Oil Hours		**0**	250	250	420
Oil Changed		**N/A**	Changed	Changed	Changed
Sample Status		**NORMAL**	NORMAL	NORMAL	NORMAL

OIL CONDITION

Visc @ 100°C	cSt	**13.0**	13.19	13.8	13.7
Base Number (BN)	mg KOH/g	**9.3**	---	---	---
Oxidation (PA)	%	**70**	83	48	50

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Soot %	%	**0.1**	0.2	0	0.1
Nitration (PA)	%	**60**	62	50	0
Sulfation (PA)	%	**57**	61	47	0
Glycol	%	**NEG**	NEG	NEG	NEG
Fuel	%	**<1.0**	<1.0	<1.0	<1.0
Silicon	ppm	**8**	15	4	7
Sodium	ppm	**<1**	6	<1	3
Potassium	ppm	**<1**	4	2	0

WEAR METALS

Iron	ppm	**9**	21	6	11
Copper	ppm	**0**	2	<1	<1
Lead	ppm	**0**	0	<1	<1
Tin	ppm	**<1**	0	0	0
Aluminum	ppm	**3**	6	2	5
Chromium	ppm	**<1**	2	<1	2
Molybdenum	ppm	**42**	43	5	53
Nickel	ppm	**<1**	<1	<1	0
Titanium	ppm	**20**	<1	0	0
Silver	ppm	**0**	0	0	0
Manganese	ppm	**0**	<1	<1	<1
Vanadium	ppm	**<1**	0	0	0

ADDITIVES

Calcium	ppm	**1649**	1846	2239	2799
Magnesium	ppm	**554**	557	284	321
Zinc	ppm	**1221**	889	1212	1405
Phosphorus	ppm	**1028**	743	1050	1261
Barium	ppm	**0**	0	<1	0
Boron	ppm	**120**	40	6	36

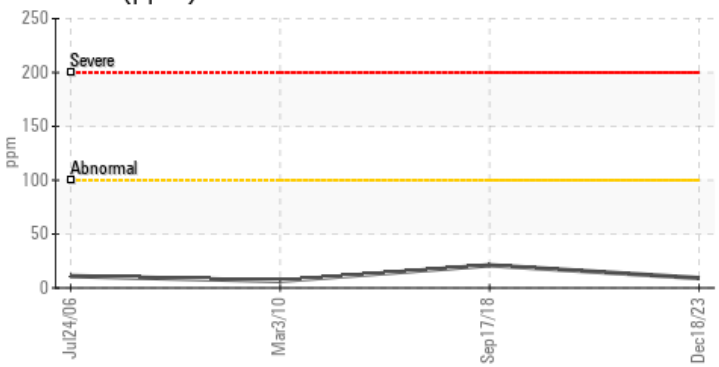
Diagnosis

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.

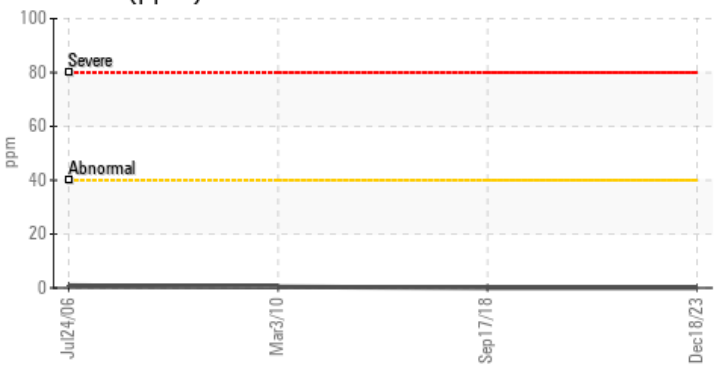
Depot: DYEBIR
Unique No: 10802551
Signed: Wes Davis
Report Date: 22 Dec 2023

GRAPHS

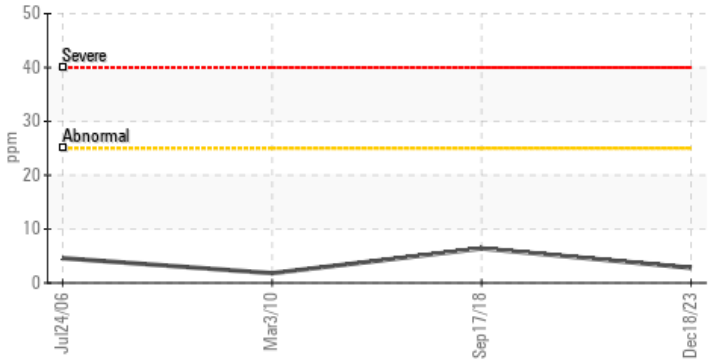
Iron (ppm)



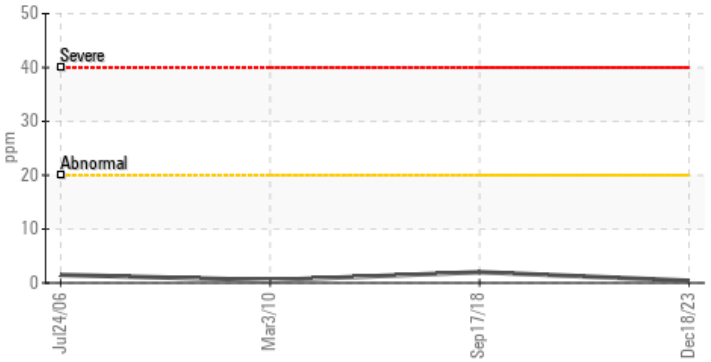
Lead (ppm)



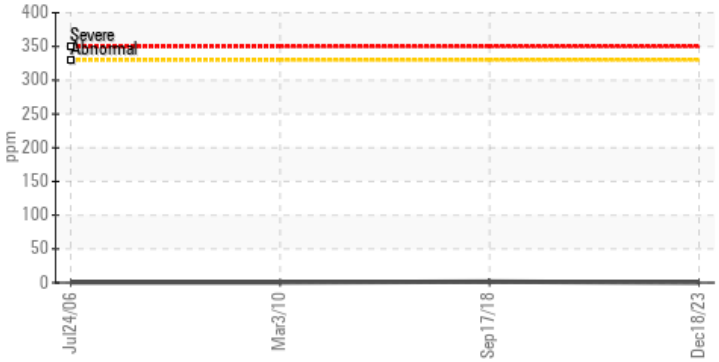
Aluminum (ppm)



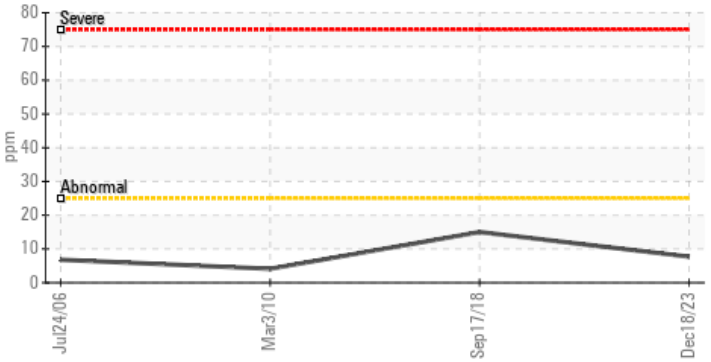
Chromium (ppm)



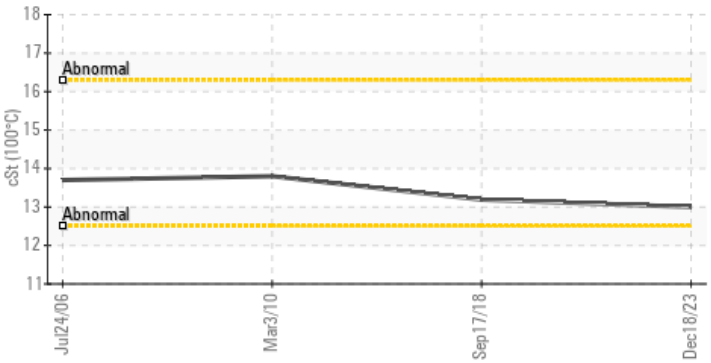
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number