

CONSTRUCTION EQUIPMENT VOLVO L 1 20H 6 3 2 5 40 - DIESEL ENGINE



Sample No: VCP455175

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

Job No:

Barium

Boron

VOLVO SAMPI F II	NFORMATION				
Sample Number		VCP455175	VCP454251	VCP445823	VCP442670
					22 Jan 2024
Sample Date		24 Apr 2024	29 Mar 2024	28 Feb 2024	
Machine Hours		16240 0	15812	15301	14655
Oil Hours		-	0	0	0
Oil Changed		Changed	Changed	Changed	N/A
Sample Status		NORMAL	NORMAL	NORMAL	NORMAL
VOLVO					
OIL CONDI	TION				
/isc @ 100°C	cSt	13.0	□13.1	□13.2	13.0
Base Number (BN)	mg KOH/g	10.2	1 0.4	■9.8	9.4
Oxidation (PA)	%	81	83	83	87
CONTAMI	MATION				
CONTAMI		,			
Nater	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.3	□ 0.4	□0.6
Nitration (PA)	%	56	59	67	80
Sulfation (PA)	%	62	62	61	63
Glycol	%	NEG	NEG	NEG	NEG
uel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	4	4	5
Sodium	ppm	2	2	2	3
Potassium	ppm	2	0	1	2
WEAR ME	ZIAT				
_					
ron	ppm	8	9	1 0	17
Copper	ppm	□ <1	1	1	3
ead.	ppm	0	<1	<1	2
Γin	ppm	■ <1	0	- <1	- <1
Aluminum	ppm	4	4	6	9
Chromium	ppm	■ <1	<1	<1	<1
//olybdenum	ppm	■39	4 2	42	4 9
Nickel	ppm	0	0	<1	1
itanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	■0	- <1		<1
/anadium	ppm	<1	<1	<1	<1
VOLVO					
ADDITIVE:					
Calcium	ppm	1613	□1824	1651	□1676
Magnesium	ppm	491	□ 530	559	□ 536
Zinc	ppm	1109	1110	1210	1177
Phosphorus		953	925	972	1008
Hospitorus	ppm	333	323	<u>□</u> 31 ∠	

0

0

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5151 DR MARTIN LUTHER KING BLVD FORT MYERS, FL US 33905

Contact: TODD LARK tlark@altaequipfl.com T:

F: (239)481-3302

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: VOLVO0090 **Unique No:** 11004817 Signed: Wes Davis Report Date: 01 May 2024

0

24

ppm

ppm

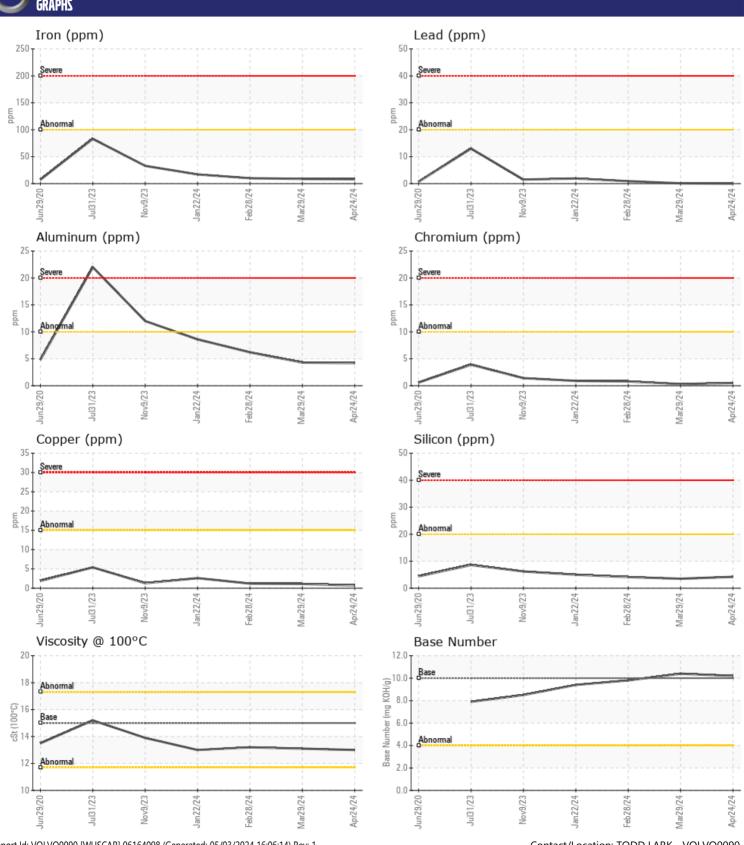
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CONSTRUCTION EQUIPMENTVOLVO L 1 2 OH 6 3 2 5 4 0 - TRANSMISSION (AUTO)



Sample No: VCP455172

Oil Type: VOLVO AUTOMATIC TRANSMISSION FLUID AT102

Job No:

VOLVO SAMPI	E INFORMATION				
Sample Number	- IIII OIII III IIII	VCP455172	VCP454246	VCP445826	VCP433505
Sample Date		24 Apr 2024	29 Mar 2024	28 Feb 2024	09 Nov 2023
Machine Hours		16240	15812	15301	13618
Oil Hours		0	0	0	0
Oil Changed		Not Changd	Not Changd	Not Changd	Changed
Sample Status		NORMAL	NORMAL	NORMAL	NORMAL
		110111111111	TVOTAVI, LE	TOTAL	TVOTAVII LE
VOLVO					
OIL CON	DITION				
Visc @ 40°C	cSt	■28.3	□29.6	■ 28.0	■28.5
CONTAI	MINATION				
_					1150
Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	■ 4	4	4	3
Sodium	ppm	■4	3	3	2
Potassium	ppm	■<1	0	□ 0	- <1
VOLVO					
WEAR	METALS				
Iron	ppm	1 8	□16	1 7	1 2
Copper	ppm	■ 55	5 3	5 6	5 0
Lead	ppm	-<1	0	0	0
Tin	ppm	■ 0	0	0	□0
Aluminum	ppm	6	6	5	■ 3
Chromium	ppm	■ 0	0	□0	■0
Molybdenum	ppm	■ 0	0	0	0
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	■ 0	0	□0	0
Manganese	ppm	-<1	- <1	- <1	0
Vanadium	ppm	0	0	0	0
ADDITIV	VFC				
				- 100	
Calcium	ppm	103	95	109	■88
Magnesium	ppm	■<1	0	6	<1
Zinc	ppm	■36	2 6	■37	■34
Phosphorus	ppm	215	208	211	□186
Barium	ppm	0	0	0	0
Boron	ppm	75	1 73	□ 69	1 70



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5151 DR MARTIN LUTHER KING BLVD FORT MYERS, FL US 33905 Contact: TODD LARK tlark@altaequipfl.com

T:

F: (239)481-3302

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the fluid. The condition of the fluid is acceptable for the time in service.

 Depot:
 VOLVO0090

 Unique No:
 11005695

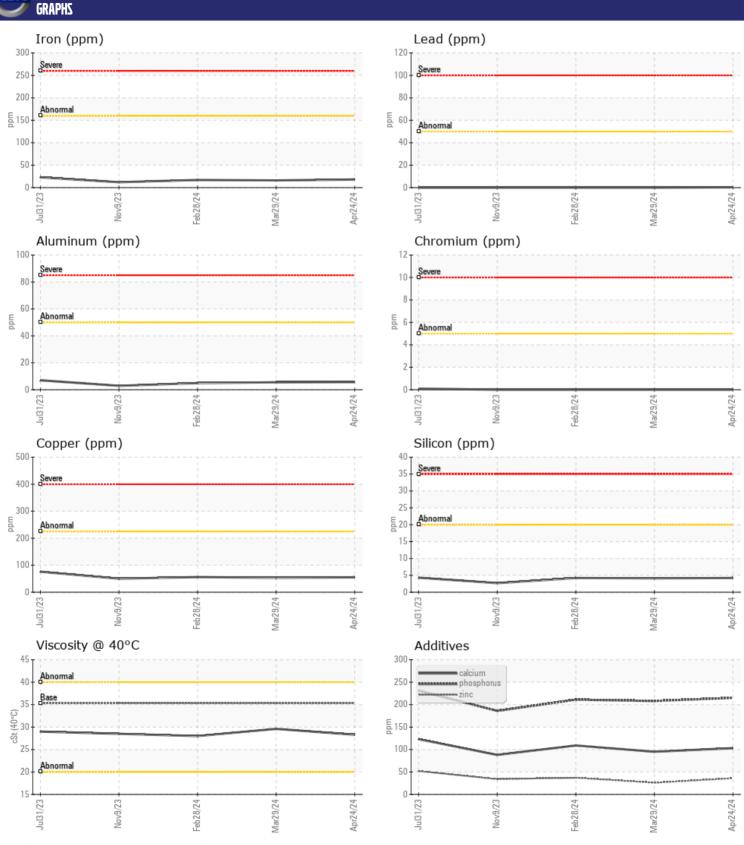
 Signed:
 Wes Davis

 Report Date:
 01 May 2024











CONSTRUCTION EQUIPMENT VOLVO L 120H 632540 - HYDRAULIC SYSTEM



Sample No: VCP454249

Oil Type: VOLVO SUPER HYDRAULIC OIL 46

Job No:

SAMPLE IN	FORMATION				
Sample Number	-	VCP454249	VCP433504	VCP426723	
Sample Date		29 Mar 2024	09 Nov 2023	31 Jul 2023	
Machine Hours		15812	13618	12544	
Oil Hours		0	0	0	
Oil Changed		Not Changd	Changed	Changed	
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	
OIL CONDI	TION				
Visc @ 40°C	cSt	61.2	59.8	56.1	
Acid Number (AN)	mg KOH/g	■0.36	□ 0.43	□ 0.51	



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US 33905

Contact: TODD LARK tlark@altaequipfl.com

T:

F: (239)481-3302

CONTAMINATION										
Water	%	NEG	NEG	NEG						
Particles >4µm		△ 32284	▲ 38777							
Particles >6µm		11168	▲ 15779							
Particles >14µm	า	1429	▲ 3101							
ISO 4406:1999 ((c)	22/21/18	22/21/19							
Silicon	ppm	2	5	2						
Sodium	ppm	2	< 1	1						
Potassium	ppm	1	_2							

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

WEAR N	METALS				
Iron	ppm	□ 3	5	5	
Copper	ppm	■<1	1	1	
Lead	ppm	0	< 1	0	
Tin	ppm	■<1	0	□0	
Aluminum	ppm	■<1	1	< 1	
Chromium	ppm	■<1	1	1	
Molybdenum	ppm	■3	3	2	
Nickel	ppm	■0	0	□0	
Titanium	ppm	0	<1	<1	
Silver	ppm	0	0	0	
Manganese	ppm	0	0	 <1	
Vanadium	ppm	<1	0	<1	

Diagnosis

ADDITIV	22				
Calcium	ppm	169	278	288	
Magnesium	ppm	11	1 6	■8	
Zinc	ppm	421	459	498	
Phosphorus	ppm	■350	407	438	
Barium	ppm	0	0	□ 0	
Boron	ppm	2	5	- <1	

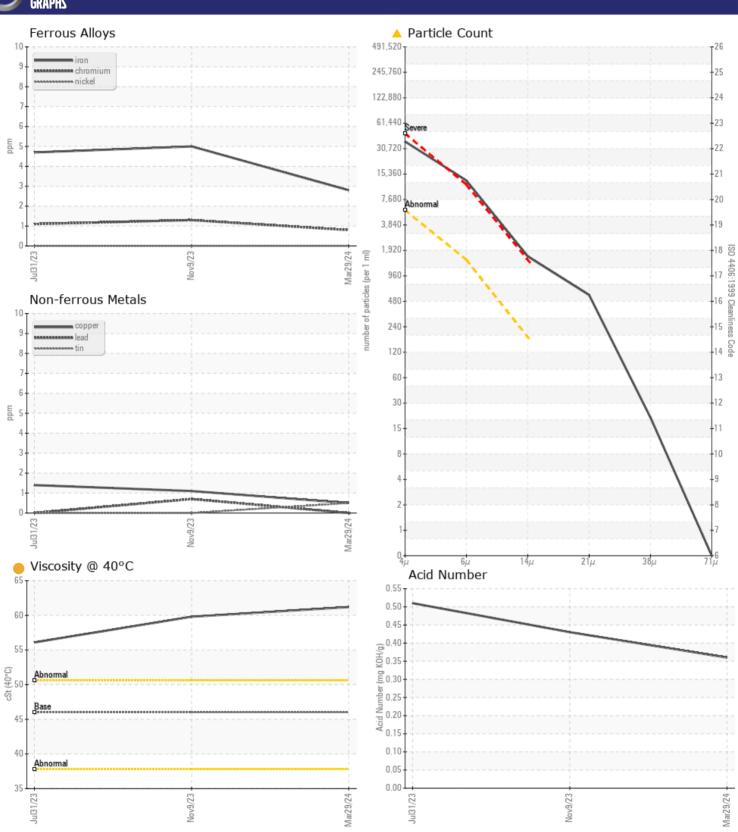
Depot:VOLVO0090Unique No:10956350Signed:Don BaldridgeReport Date:04 Apr 2024







GRAPHS



Report Id: VOLVO0090 [WUSCAR] 06136885 (Generated: 04/04/2024 18:34:45) Rev: 1

Contact/Location: TODD LARK - VOLVO0090



CONSTRUCTION EQUIPMENT VOLVO L 120H 632540 - FRONT LEFT FINAL DRIVE



Sample No: VCP433503

Oil Type: VOLVO WET BRAKE TRANSAXLE OIL

Job No:

SAMPLE	E INFORMATION			
Sample Number	 -	VCP433503	 	
Sample Date		09 Nov 2023	 	
Machine Hours		13618	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		NORMAL	 	
OIL CON	IDITION			
Visc @ 40°C	cSt	68.9	 	
VISC @ 40 C	CSI	00.3	 	
VOLVO				
CONTAN	MINATION			
Silicon	ppm	25	 	
Sodium	ppm	5	 	
Potassium	ppm	■ 0	 	
WEAR N	METALS			
Iron	ppm	■498	 	
Copper	ppm	2	 	
Lead	ppm	0	 	
Tin	ppm	0	 	
Aluminum	ppm		 	
Chromium	ppm	4	 	
Molybdenum	ppm	10	 	
Nickel	ppm	2	 	
Titanium	ppm	0	 	
Silver	ppm	0	 	
Manganese	ppm	15	 	
Vanadium	ppm	0	 	
ADDITIV	VES			
Calcium	ppm	2598	 	
Magnesium	ppm	17	 	
-			 	
Zinc	ppm	1064		
Zinc Phosphorus	ppm	■ 1064 ■ 1140	 	



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5151 DR MARTIN LUTHER KING BLVD FORT MYERS, FL US 33905 Contact: TODD LARK tlark@altaequipfl.com

tlark@altaequipfl.co T:

F: (239)481-3302

Diagnosis

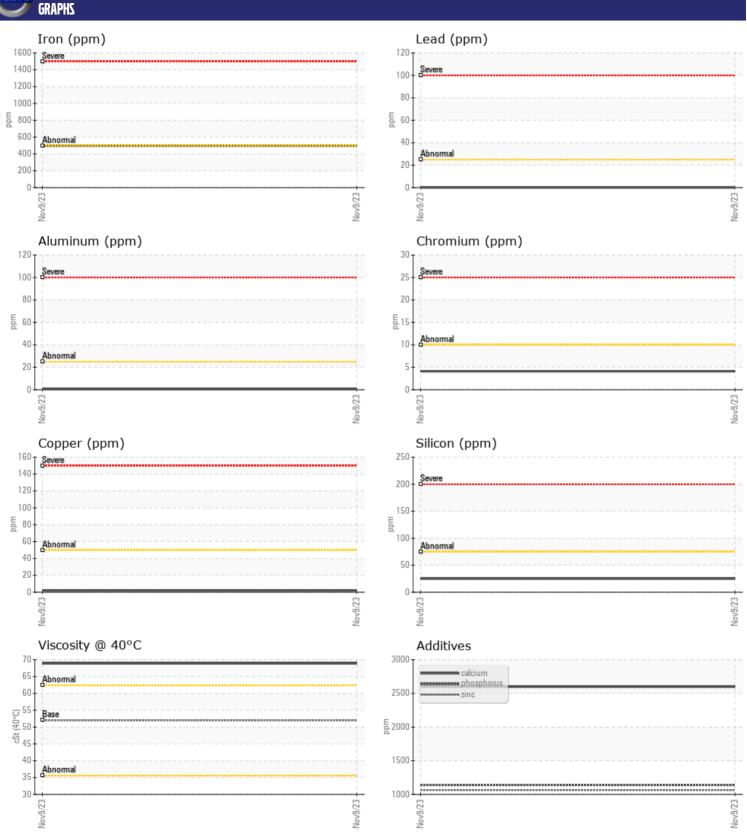
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot:VOLVO0090Unique No:10740981Signed:Don BaldridgeReport Date:16 Nov 2023











CONSTRUCTION EQUIPMENT VOLVO L 120H 632540 - FRONT AXLE



Sample No: VCP454248
Oil Type: VOLVO WB 102

Job No:

SAMPLI	E INFORMATION				
Sample Number	•	VCP454248	VCP433761	VCP418563	VCP312048
Sample Date		29 Mar 2024	09 Nov 2023	31 Jul 2023	21 Jun 2021
Machine Hours		15812	13618	12544	5391
Oil Hours		0	0	0	0
Oil Changed		Changed	Not Changd	Changed	Not Changd
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL
VOLVO					
OIL CON	IDITION				
Visc @ 40°C	cSt	66.2	68.8	288	45.4
VOLVO					
CONTAI	MINATION				
Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	■24	2 3	2 5	2 1
Sodium	ppm	6	<u></u> 5	□ <1	□10
Potassium	ppm	O	0	 0	1
VOLVO	METALS				
_	AE I AL 2	<u> </u>			
Iron	ppm	<u></u> ▲ 633	<u>^</u> 620	<u></u> 950	■376
Copper	ppm	■ 2	2	6	1
Lead	ppm	■0	0	0	- <1
Tin	ppm	■ <1	0	0	- <1
Aluminum	ppm	■1	- <1	2	0
Chromium	ppm	■ 5	5	6	2
Molybdenum	ppm	■8	9	1 3	4
Nickel	ppm	■2	2	■3	1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	■15	1 5	1 6	5
Vanadium	ppm	0	0	<1	<1
VOLVO					
ADDITIV	VES				
Calcium	ppm	2724	2539	220	4093
Magnesium	ppm	■9	1 6	1 22	12
Zinc	ppm	■ 1108	1034	□ 124	□ 1562
Phosphorus	ppm	■1205	1125	□ 1023	□ 1336
Barium	ppm	■0	0	0	0
Boron	ppm	■124	119	□136	210



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5151 DR MARTIN LUTHER KING BLVD FORT MYERS, FL

US 33905

Contact: TODD LARK tlark@altaequipfl.com

T:

F: (239)481-3302

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Gear wear is indicated. All other component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

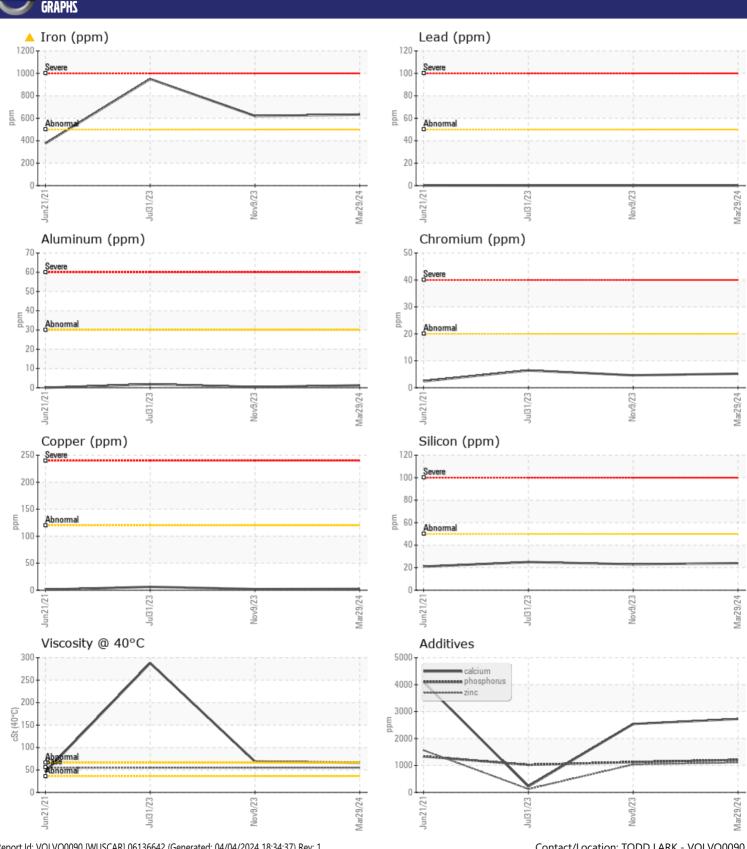
Diagnosis

Depot: VOLVO0090
Unique No: 10956107
Signed: Don Baldridge
Report Date: 04 Apr 2024











CONSTRUCTION EQUIPMENT VOLVO L 1 2 OH 63 2 5 40 - FRONT RIGHT FINAL DRIVE



Sample No: VCP433501

Oil Type: VOLVO WET BRAKE TRANSAXLE OIL

Job No:

VOLVO	INFORMATIO	1		
	INFURMATIU		<u> </u>	_
Sample Number		VCP433501		
Sample Date		09 Nov 2023		
Machine Hours		13618		
Oil Hours		0		
Oil Changed		Changed		
Sample Status		ABNORMAL		
OIL CON	DITION			
Visc @ 40°C		-600		
VISC @ 40°C	cSt	68.9		
VOLVO				
CONTAN	MINATION			
Silicon	ppm	24		
Sodium	ppm	6		
Potassium	ppm	■ <1		
rotussium	РРШ			
VOLVO				
WEAR N	METALS			
Iron	ppm	<u></u> 4 504 <u></u>		
Copper	ppm	2		
Lead	ppm	■0		
Tin	ppm	■ 0		
Aluminum	ppm	-<1		
Chromium	ppm	4		
Molybdenum	ppm	9		
Nickel	ppm	<u> </u>		
Titanium	ppm	0		
Silver	ppm	0		
Manganese	ppm	■14		
Vanadium	ppm	0		
	le le			
VOLVO	IFC			
ADDITIV	EZ			
Calcium	ppm	2475		
Magnesium	ppm	16		
Zinc	ppm	■1013		
Phosphorus	ppm	1104		
Barium	ppm	■0		
Boron	ppm	118		



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F: (239)481-3302

Diagnosis

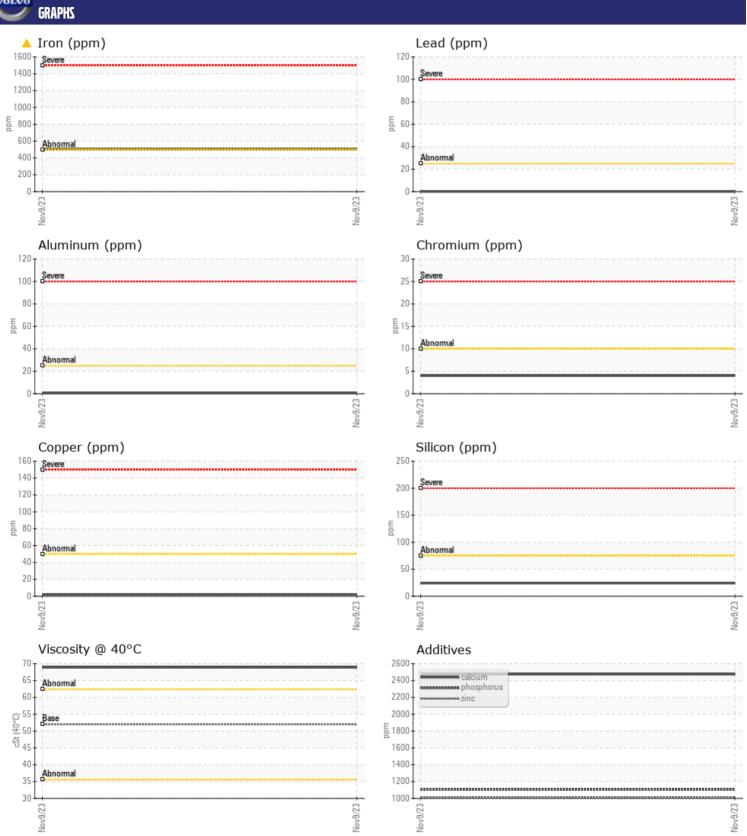
The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. High concentration of visible metal present. Gear wear is indicated. There is a high amount of visible silt present in the sample. The condition of the oil is acceptable for the time in service.

Depot:VOLVO0090Unique No:10740990Signed:Don BaldridgeReport Date:16 Nov 2023











CONSTRUCTION EQUIPMENT VOLVO L 120H 632540 - REAR LEFT FINAL DRIVE



Sample No: VCP433502

Oil Type: VOLVO WET BRAKE TRANSAXLE OIL

Job No:

SAMPLI	E INFORMATION			
Sample Number		VCP433502	 	
Sample Date		09 Nov 2023	 	
Machine Hours		13618	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		ABNORMAL	 	
OIL CON	IDITION			
Visc @ 40°C	cSt	44.0	 	
VISC @ 40 C	CSt	44.0	 	
VOLVO				
CONTAI	MINATION			
Silicon	ppm	2 4	 	
Sodium	ppm	2	 	
Potassium	ppm	0	 	
WEAR N	METALS			
Iron	ppm	241	 	
Copper	ppm	-<1	 	
Lead	ppm	0	 	
Tin	ppm	■ 0	 	
Aluminum	ppm	2	 	
Chromium	ppm	■3	 	
Molybdenum	ppm	17	 	
Nickel	ppm	1	 	
Titanium	ppm	0	 	
Silver	ppm	0	 	
Manganese	ppm	■13	 	
Vanadium	ppm	0	 	
ADDITIV	VES			
Calcium	ppm	■3857	 	
Magnesium	ppm	31	 	
-	• • •	■1539	 	
Zinc	ppm	1333		
Zinc Phosphorus	ppm	1246	 	



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F: (239)481-3302

Diagnosis

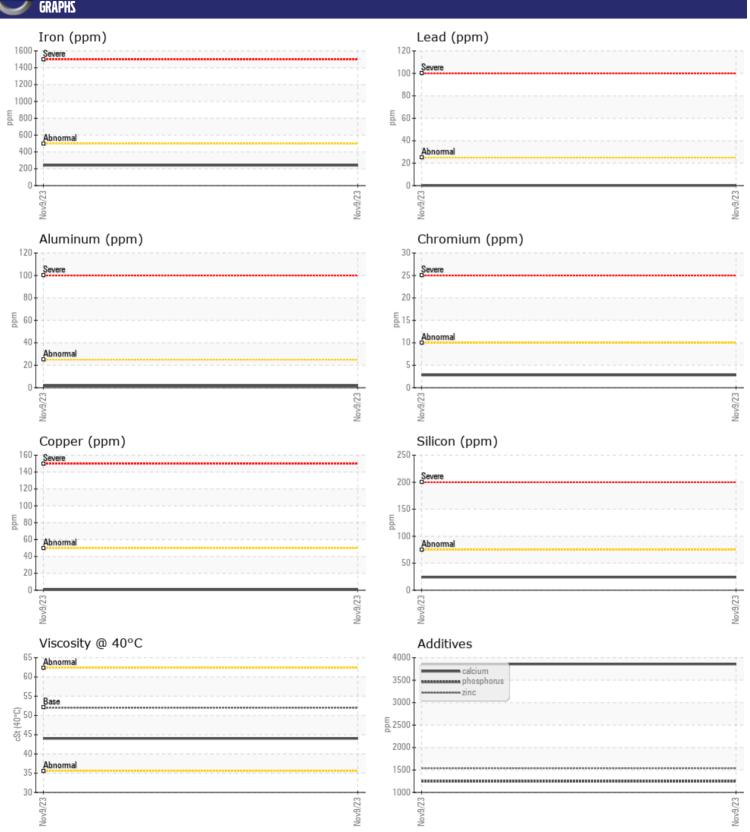
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of visible silt present in the sample. The condition of the oil is acceptable for the time in service.

Depot:VOLVO0090Unique No:10740980Signed:Don BaldridgeReport Date:16 Nov 2023











CONSTRUCTION EQUIPMENT VOLVO L120H 632540 - REAR AXLE



Sample No: VCP454250
Oil Type: VOLVO WB 102

Job No:

VOLVO	E INFORMATION				
Sample Number	and the second second	VCP454250	VCP433763	VCP426728	
		29 Mar 2024	09 Nov 2023	31 Jul 2023	
Sample Date Machine Hours		15812	13618	12544	
Oil Hours		0	0	0	
				-	
Oil Changed		Changed	Not Changd	Changed	
Sample Status		NORMAL	NORMAL	ABNORMAL	
VOLVO					
OIL CON	IDITION				
Visc @ 40°C	cSt	43.9	43.9	1 43.8	
VOLVO	MINISTION				
CONTAI	MINATION				
Water	%	NEG	NEG	NEG	
Silicon	ppm	■21	1 9	1 7	
Sodium	ppm	■ 3	2	1	
Potassium	ppm	■0	0	■0	
WEAR	METALC				
WEAR	ME I HF7				
Iron	ppm	■214	164	■ 49	
Copper	ppm	1	 <1	0	
Lead	ppm	■0	0	0	
Tin	ppm	■ <1	0	■0	
Aluminum	ppm	2	1	1	
Chromium	ppm	2	2	1	
Molybdenum	ppm	13	1 2	8	
Nickel	ppm	■<1	- <1		
Titanium	ppm	<1	0	<1	
Silver	ppm	0	0	0	
Manganese	ppm	12	9	■8	
Vanadium	ppm	0	0	0	
ADDITI	VFS				
_	-	= 2077	=3600	= 4005	
Calcium 	ppm	■3977	■3680	4095	
Magnesium	ppm	20	25	3 2	
Zinc	ppm	■ 1579	■ 1456	■ 1743	
Phosphorus	ppm	■ 1302	1221	1345	
Barium	ppm	0	0	0	
Boron	ppm	136	124	143	



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5151 DR MARTIN LUTHER KING BLVD FORT MYERS, FL US 33905 Contact: TODD LARK tlark@altaequipfl.com

T:

F: (239)481-3302

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 condition of the oil is acceptable for the time in service.

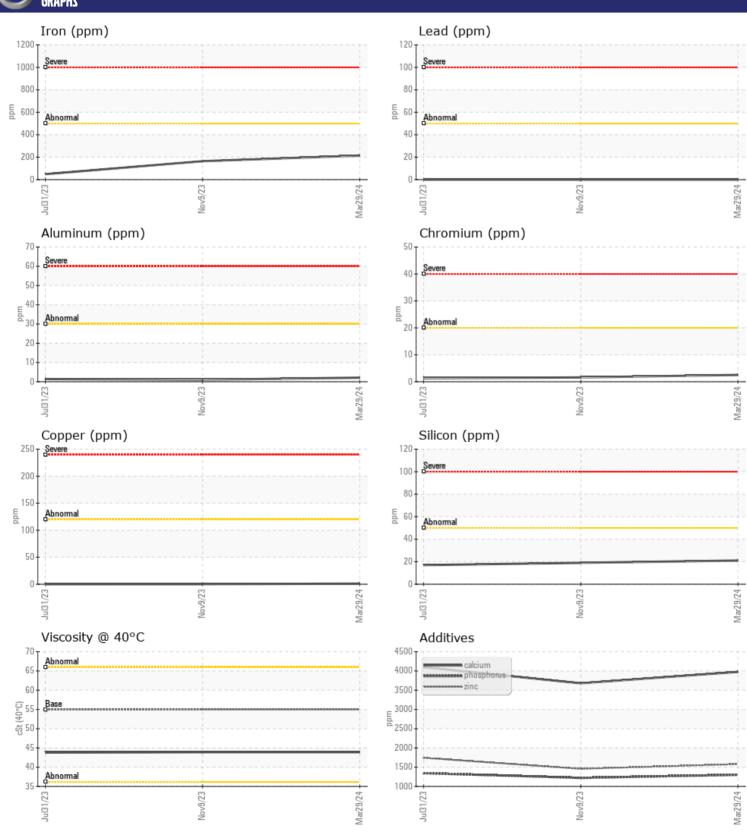
Depot:VOLVO0090Unique No:10956106Signed:Wes DavisReport Date:03 Apr 2024







GRAPHS





CONSTRUCTION EQUIPMENT VOLVO L 120H 632540 - REAR RIGHT FINAL DRIVE



Sample No: VCP433762

Oil Type: VOLVO WET BRAKE TRANSAXLE OIL

Job No:

SAMPLI	E INFORMATION			
Sample Number		VCP433762	 	
Sample Date		09 Nov 2023	 	
Machine Hours		13618	 	
Oil Hours		0	 	
Oil Changed		Changed	 	
Sample Status		NORMAL	 	
OIL CON	IDITION			
Visc @ 40°C	cSt	44.1	 	
VISC @ 40 C	CSL	44. I	 	
VOLVO				
CONTAI	MINATION			
Silicon	ppm	23	 	
Sodium	ppm	2	 	
Potassium	ppm	0	 	
WEAR	METALS			
Iron	ppm	270	 	
Copper	ppm	□<1	 	
Lead	ppm	0	 	
Tin	ppm	□ 0	 	
Aluminum	ppm	2	 	
Chromium	ppm	■ 3	 	
Molybdenum	ppm	16	 	
Nickel	ppm	1	 	
Titanium	ppm	0	 	
Silver	ppm	0	 	
Manganese	ppm	13	 	
Vanadium	ppm	0	 	
ADDITIV	VES			
Calcium	ppm	■3847	 	
Magnesium	ppm	29	 	
-		1539	 	
Zinc	ppm	1333		
Zinc Phosphorus	ppm	■ 1244	 	
		_	 	



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5151 DR MARTIN LUTHER KING BLVD FORT MYERS, FL US 33905 Contact: TODD LARK tlark@altaequipfl.com

T:

F: (239)481-3302

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 condition of the oil is acceptable for the time in service.

Depot:VOLVO0090Unique No:10740982Signed:Wes DavisReport Date:15 Nov 2023







