



CONSTRUCTION EQUIPMENT

VOLVO EC300ELR 314370 - COOLANT



Sample No: VCP354203
Oil Type: VOLVO COOLANT VCS (YELLOW)
Job No:



SAMPLE INFORMATION

Sample Number	VCP354203	VCP306998	---	---
Sample Date	06 Jun 2022	23 Mar 2021	---	---
Machine Hours	992	456	---	---
Sample Status	NORMAL	NORMAL	---	---



COOLANT CONDITION

pH	Scale 0-14	7.94	8.10	---	---
Reserve Alkalinity	Scale 0-20	---	---	---	---
Nitrites	ppm	NT	0	---	---
Percentage Glycol	%	44.5	45	---	---
Freezing Point	°C	-21	-25	---	---



CONTAMINATION

Coolant Appearance	normal	normal	---	---
Coolant Color	Yllow	Green	---	---

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471

Diagnosis

The fluid is suitable for further service. There is no indication of any contamination in the coolant. The carboxylate level of this fluid is acceptable. The glycol level is acceptable. The pH level of this fluid is within the acceptable limits.

Depot: VOLVO0142
Unique No: 10047252
Signed: Jonathan Hester
Report Date: 13 Jul 2022



CONSTRUCTION EQUIPMENT

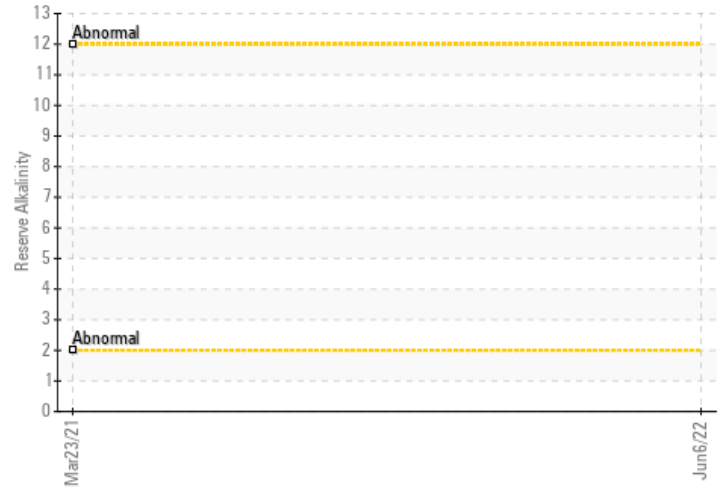


GRAPHS

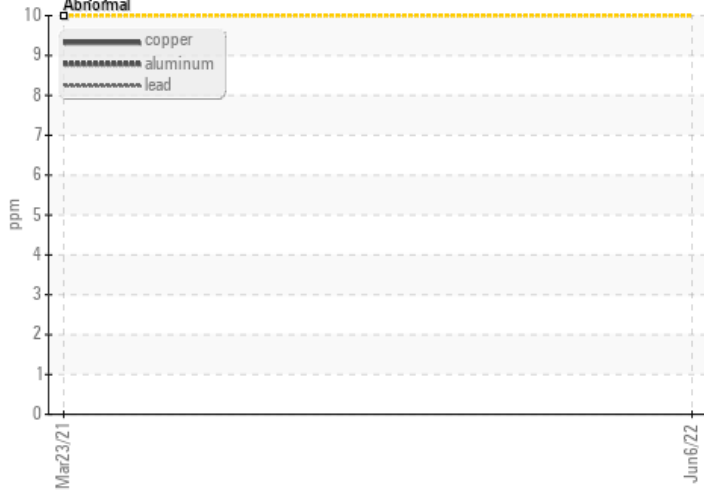
Iron/Tin/Silver



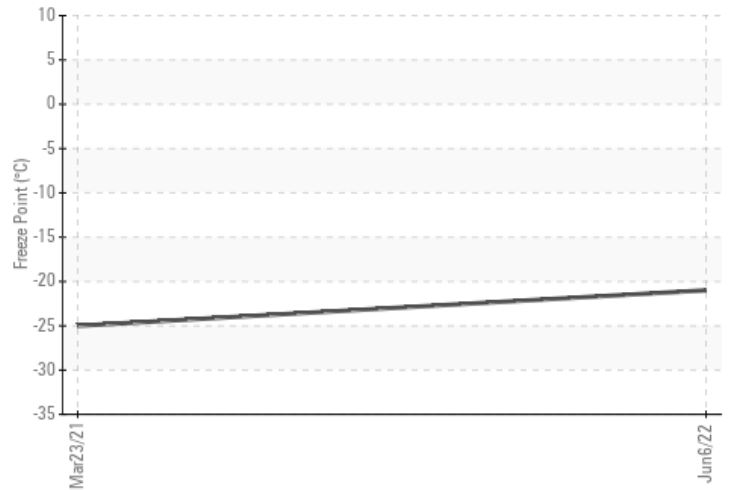
Reserve Alkalinity



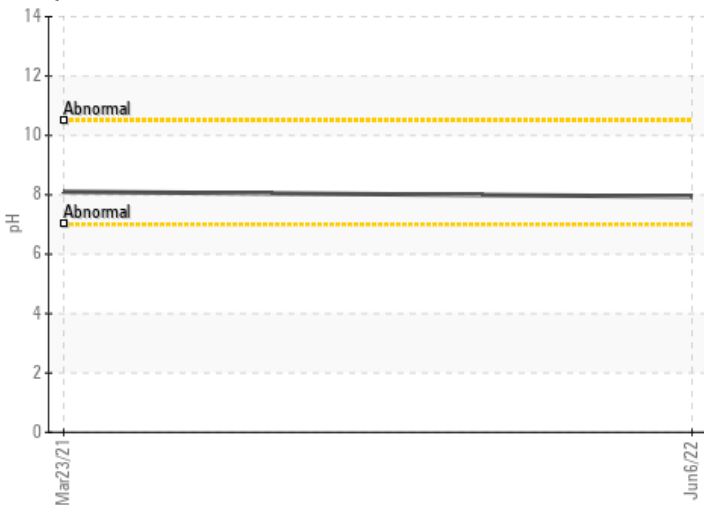
Copper/Aluminum/Lead



Freeze Point



pH



Nitrites





CONSTRUCTION EQUIPMENT

354477 VOLVO EC300ELR 314370 - DIESEL ENGINE



Sample No: VCP415960
Oil Type: DIESEL ENGINE OIL SAE 40
Job No: 354477



SAMPLE INFORMATION

Sample Number	VCP415960	VCP375791	VCP306994	---
Sample Date	07 Sep 2023	06 Jun 2022	23 Mar 2021	---
Machine Hours	1625	99	456	---
Oil Hours	0	0	0	---
Oil Changed	Changed	N/A	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
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 F: (315)434-9471



OIL CONDITION

Visc @ 100°C	cSt	12.9	12.9	12.9	---
Base Number (BN)	mg KOH/g	9.5	10.1	---	---
Oxidation (PA)	%	79	73	46	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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.



CONTAMINATION

Soot %	%	0.2	0.1	0.1	---
Nitration (PA)	%	63	67	63	---
Sulfation (PA)	%	60	59	53	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	8	8	13	---
Sodium	ppm	3	2	3	---
Potassium	ppm	10	3	3	---



WEAR METALS

Iron	ppm	11	10	12	---
Copper	ppm	4	6	15	---
Lead	ppm	1	1	2	---
Tin	ppm	2	2	2	---
Aluminum	ppm	7	3	2	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	54	40	5	---
Nickel	ppm	<1	2	6	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	<1	<1	<1	---
Manganese	ppm	1	<1	2	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	1787	1584	1955	---
Magnesium	ppm	573	527	281	---
Zinc	ppm	1234	1019	1061	---
Phosphorus	ppm	957	851	977	---
Barium	ppm	0	0	0	---
Boron	ppm	43	53	14	---

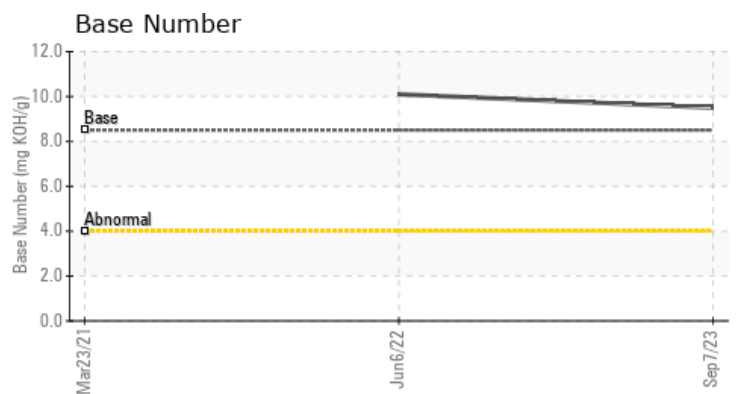
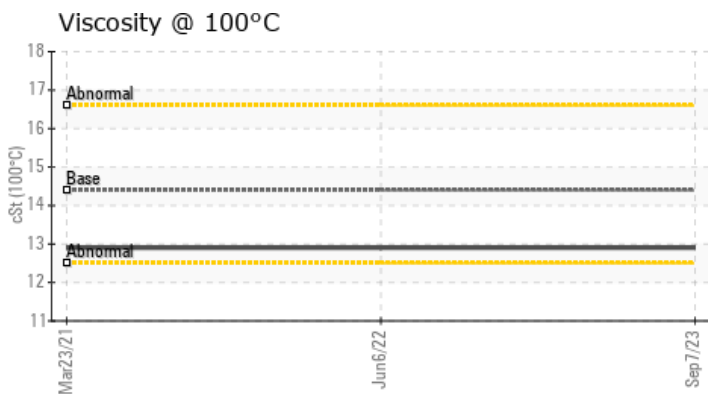
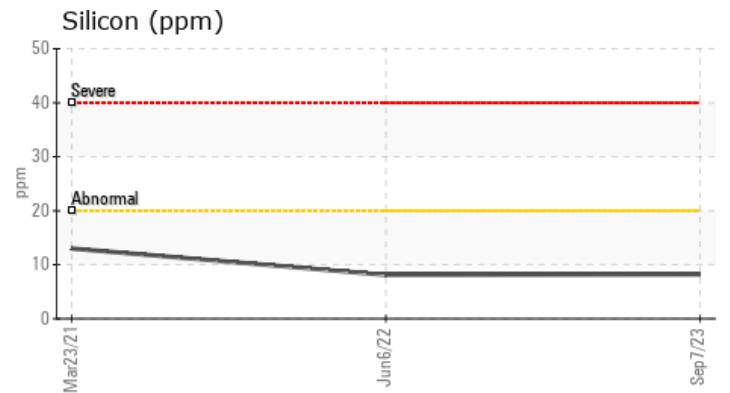
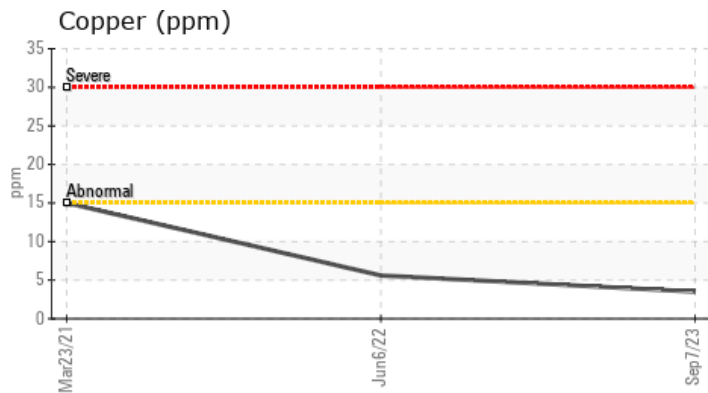
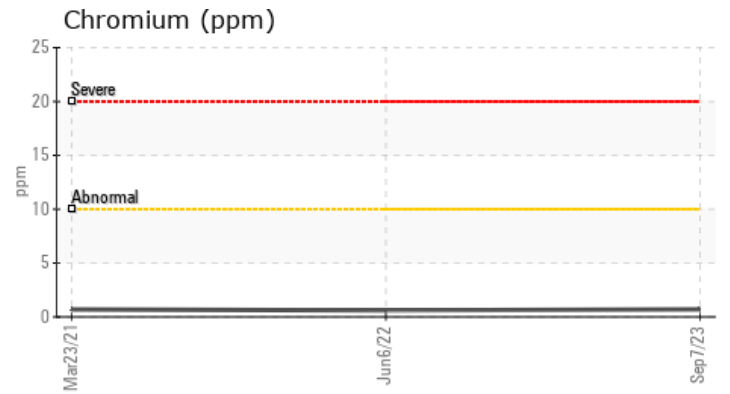
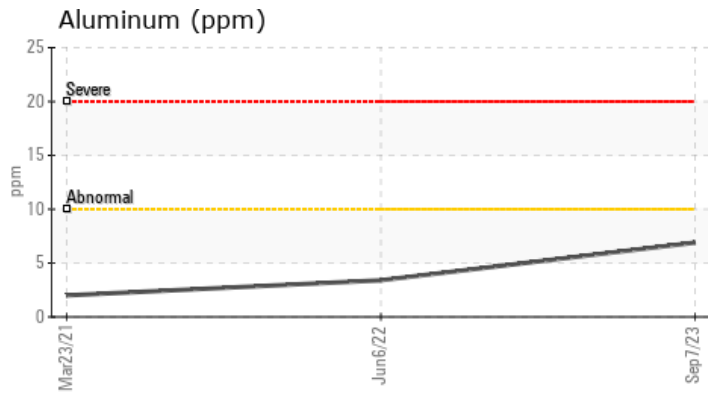
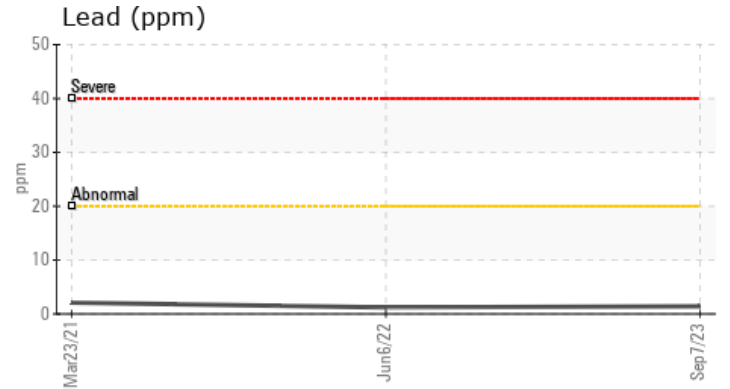
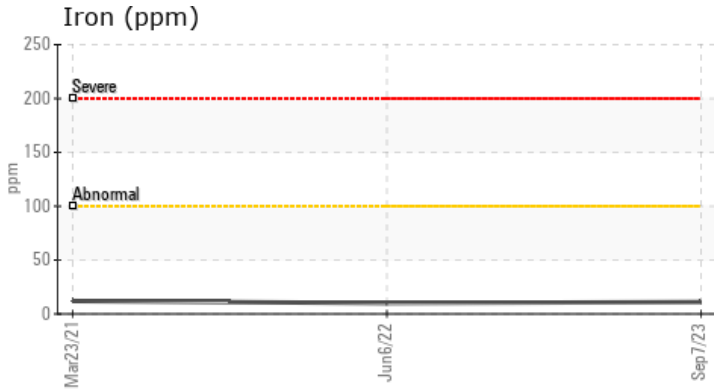
Depot: VOLVO0142
Unique No: 10643011
Signed: Wes Davis
Report Date: 12 Sep 2023



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

354477 VOLVO EC300ELR 314370 - HYDRAULIC SYSTEM



Sample No: VCP416503
Oil Type: AW HYDRAULIC OIL ISO 46
Job No: 354477



SAMPLE INFORMATION

Sample Number	VCP416503	VCP354193	VCP306999	---
Sample Date	07 Sep 2023	06 Jun 2022	23 Mar 2021	---
Machine Hours	1625	992	456	---
Oil Hours	0	0	0	---
Oil Changed	N/A	N/A	Not Changd	---
Sample Status	NORMAL	ABNORMAL	ABNORMAL	---

ALTA EQUIPMENT

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 US 13206
 Contact: JIM STRIGLE
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 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	41.8	42.4	43.0	---
Acid Number (AN)	mg KOH/g	0.24	0.42	0.389	---



CONTAMINATION

Particles >4µm		31185	151977	---	---
Particles >6µm		3279	56289	---	---
Particles >14µm		128	2544	---	---
ISO 4406:1999 (c)		22/19/14	24/23/19	---	---
Silicon	ppm	8	3	2	---
Sodium	ppm	2	1	2	---
Potassium	ppm	3	0	0	---

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 amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	14	2	3	---
Copper	ppm	36	28	19	---
Lead	ppm	<1	<1	<1	---
Tin	ppm	0	<1	0	---
Aluminum	ppm	<1	<1	<1	---
Chromium	ppm	1	<1	<1	---
Molybdenum	ppm	0	0	0	---
Nickel	ppm	0	<1	0	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	<1	<1	---
Manganese	ppm	<1	0	0	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	52	44	77	---
Magnesium	ppm	0	0	0	---
Zinc	ppm	353	415	492	---
Phosphorus	ppm	404	373	382	---
Barium	ppm	0	0	0	---
Boron	ppm	0	<1	<1	---

Depot: VOLV00142
Unique No: 10643171
Signed: Don Baldrige
Report Date: 13 Sep 2023

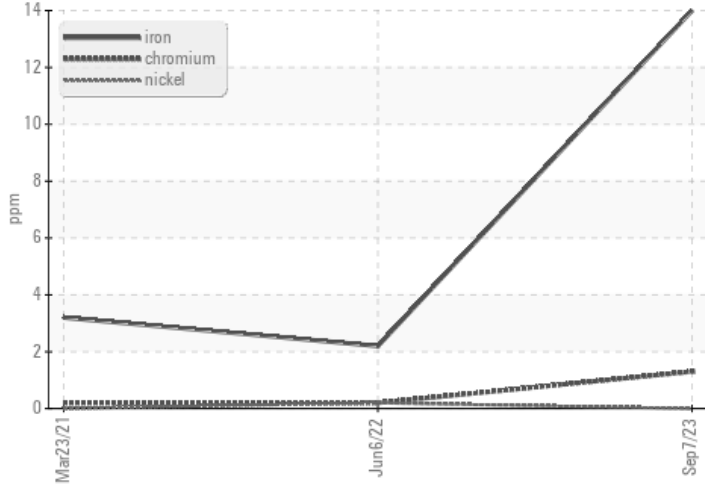


CONSTRUCTION EQUIPMENT

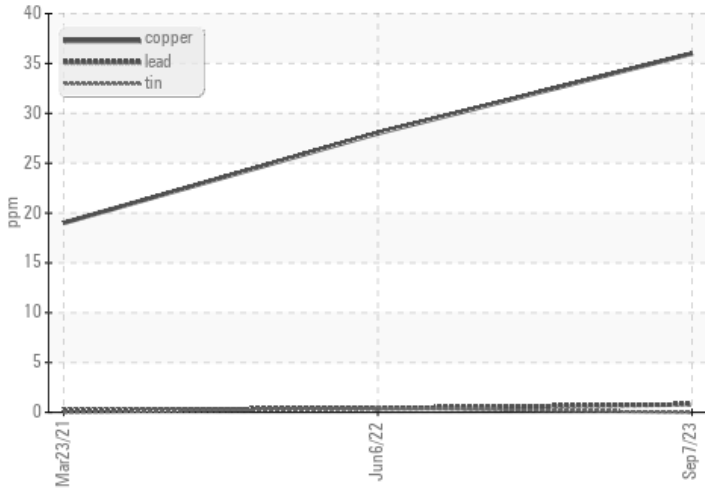


VOLVO GRAPHS

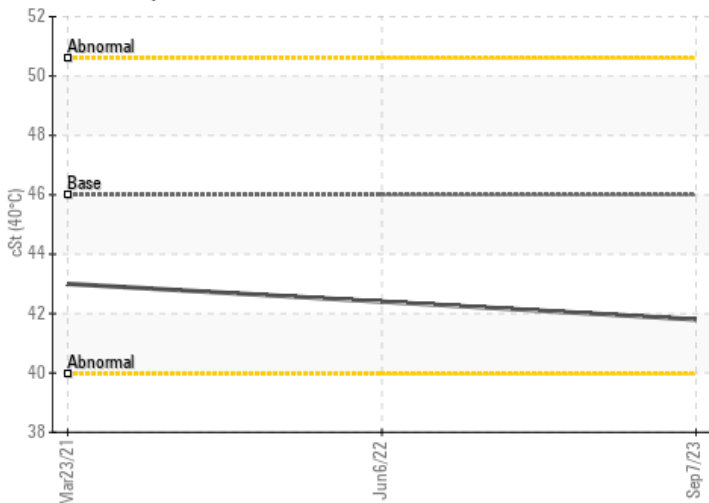
Ferrous Alloys



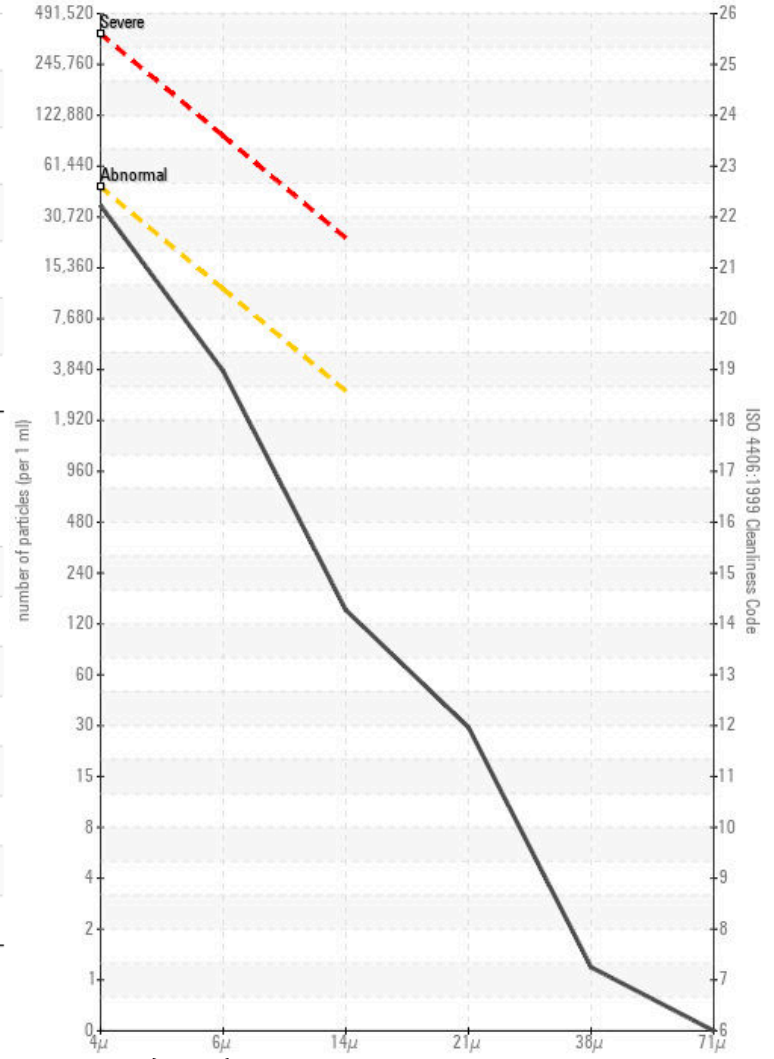
Non-ferrous Metals



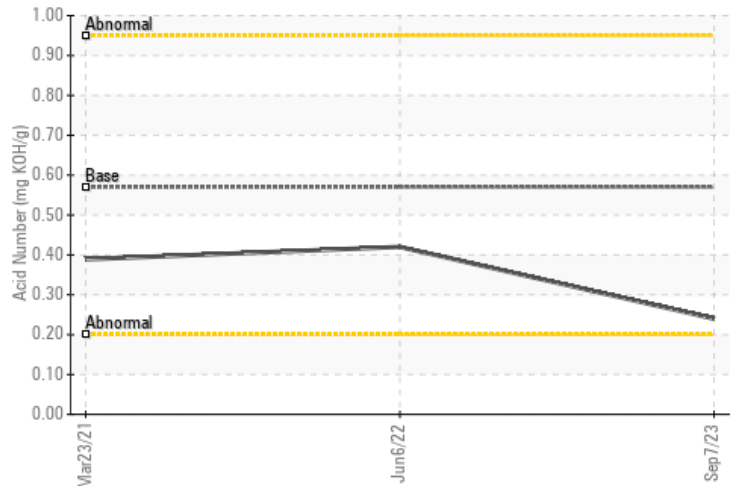
Viscosity @ 40°C



Particle Count



Acid Number





CONSTRUCTION EQUIPMENT

VOLVO EC300ELR 314370 - SWING DRIVE



Sample No: VCP356672
Oil Type: GEAR OIL SAE 80W90
Job No:



SAMPLE INFORMATION

Sample Number	VCP356672	---	---	---
Sample Date	06 Jun 2022	---	---	---
Machine Hours	992	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---

ALTA EQUIPMENT

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 Contact: JIM STRIGLE
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 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	█ 161	---	---	---
-------------	-----	-------	-----	-----	-----



CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 15	---	---	---
Sodium	ppm	█ <1	---	---	---
Potassium	ppm	█ <1	---	---	---

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.



WEAR METALS

Iron	ppm	█ 341	---	---	---
Copper	ppm	█ 9	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	2	---	---	---
Chromium	ppm	3	---	---	---
Molybdenum	ppm	█ <1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 6	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 13	---	---	---
Magnesium	ppm	█ 2	---	---	---
Zinc	ppm	█ 24	---	---	---
Phosphorus	ppm	█ 490	---	---	---
Barium	ppm	█ <1	---	---	---
Boron	ppm	█ 6	---	---	---

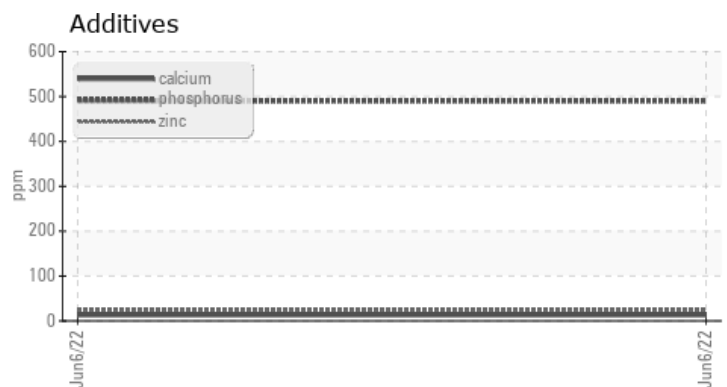
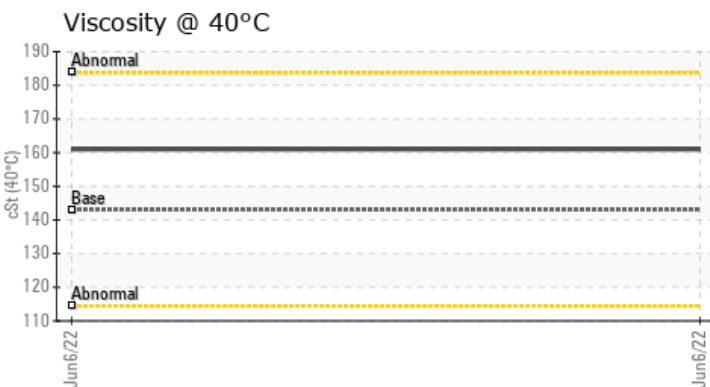
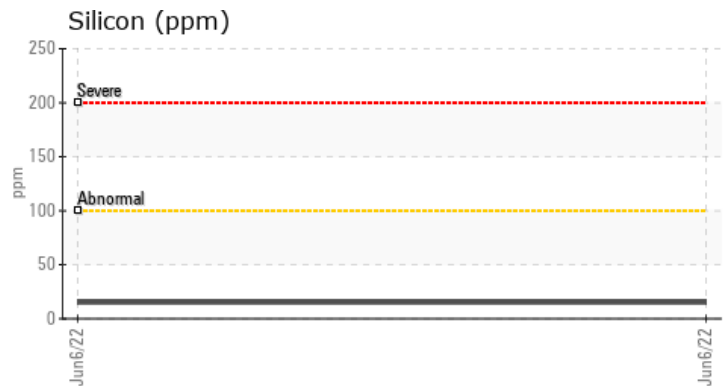
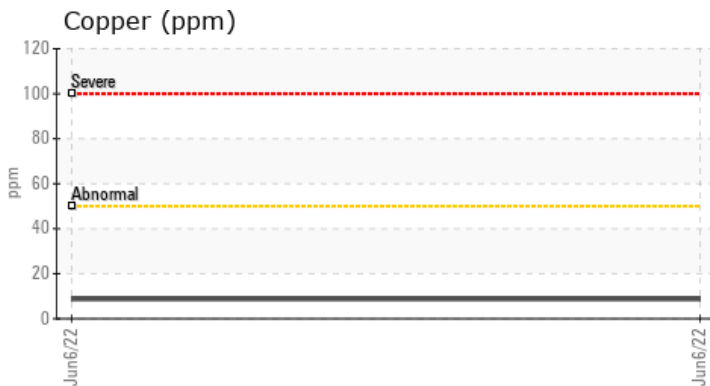
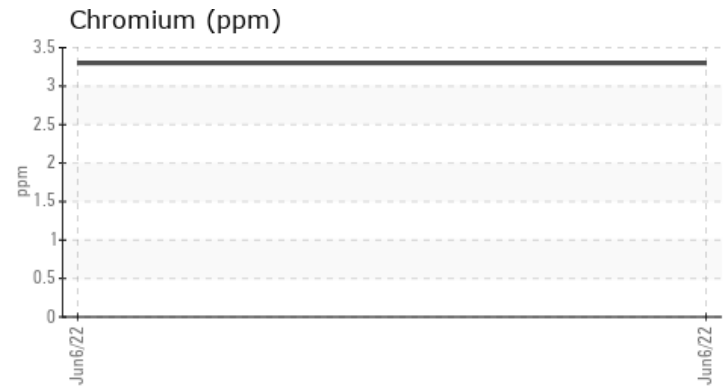
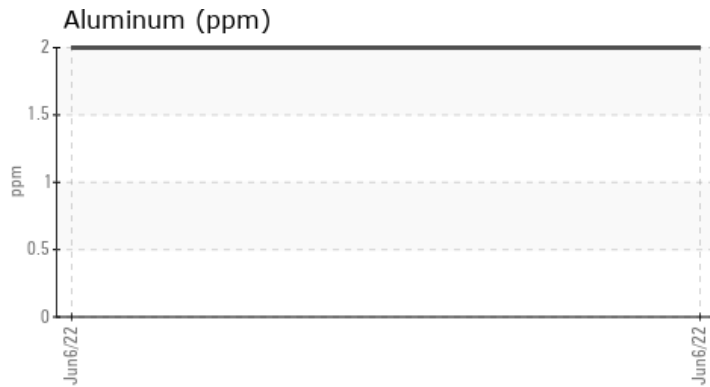
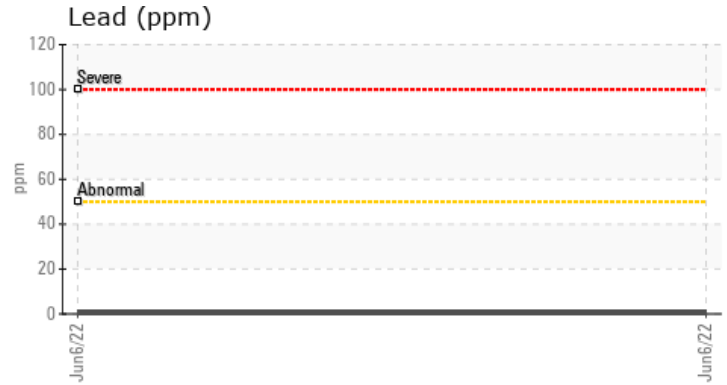
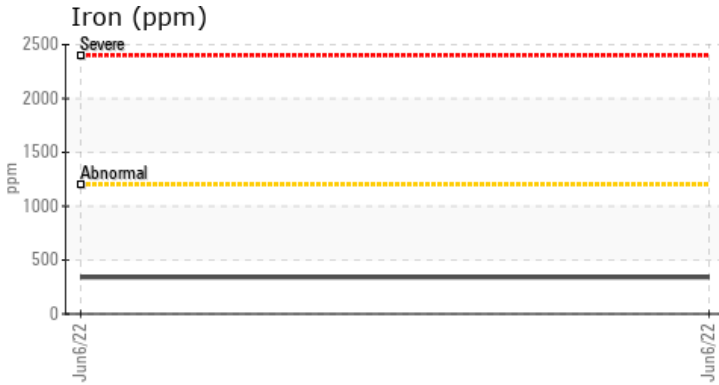
Depot: VOLVO0142
Unique No: 10047186
Signed: Don Baldrige
Report Date: 12 Jul 2022



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

354477 VOLVO EC300ELR 314370 - FRONT LEFT FINAL DRIVE



Sample No: VCP415959
Oil Type: GEAR OIL SAE 80W90
Job No: 354477



SAMPLE INFORMATION

Sample Number	VCP415959	VCP353925	---	---
Sample Date	07 Sep 2023	06 Jun 2022	---	---
Machine Hours	1625	992	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Chngd	N/A	---	---
Sample Status	ABNORMAL	NORMAL	---	---

ALTA EQUIPMENT

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 US 13206
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 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	█ 142	█ 146	---	---
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CONTAMINATION

Silicon	ppm	▲ 178	█ 74	---	---
Sodium	ppm	█ 4	█ 2	---	---
Potassium	ppm	█ 19	█ 12	---	---



WEAR METALS

Iron	ppm	█ 394	█ 210	---	---
Copper	ppm	█ 0	█ <1	---	---
Lead	ppm	█ 0	█ <1	---	---
Tin	ppm	█ <1	█ 0	---	---
Aluminum	ppm	▲ 33	█ 22	---	---
Chromium	ppm	█ 12	█ 7	---	---
Molybdenum	ppm	█ <1	█ <1	---	---
Nickel	ppm	█ <1	<1	---	---
Titanium	ppm	3	2	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	█ 5	█ 3	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	█ 382	█ 289	---	---
Magnesium	ppm	█ 17	█ 16	---	---
Zinc	ppm	█ 74	█ 14	---	---
Phosphorus	ppm	█ 993	█ 866	---	---
Barium	ppm	█ 0	█ <1	---	---
Boron	ppm	█ 169	█ 130	---	---

Diagnosis

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

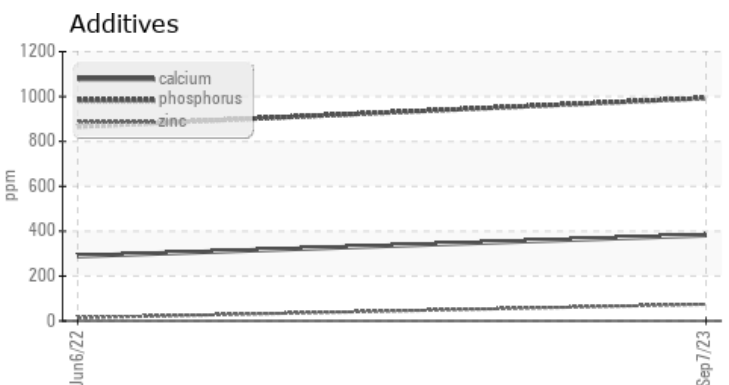
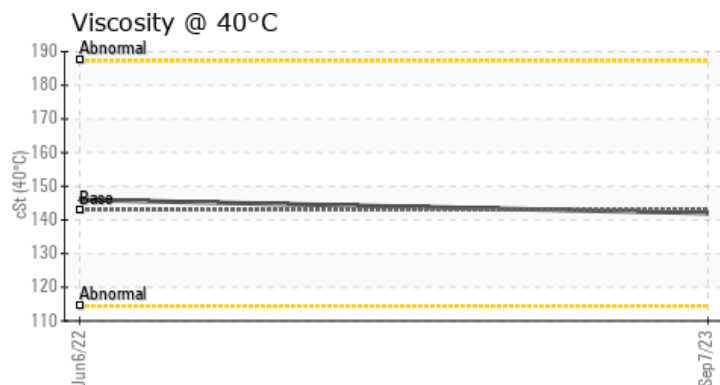
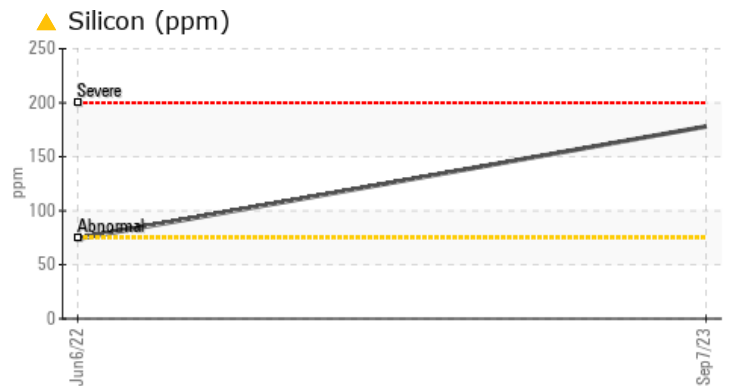
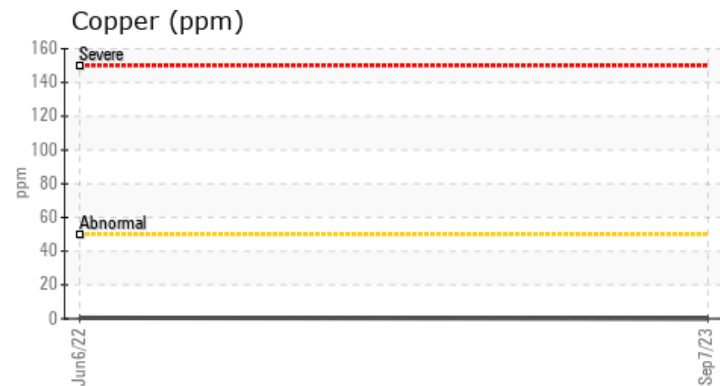
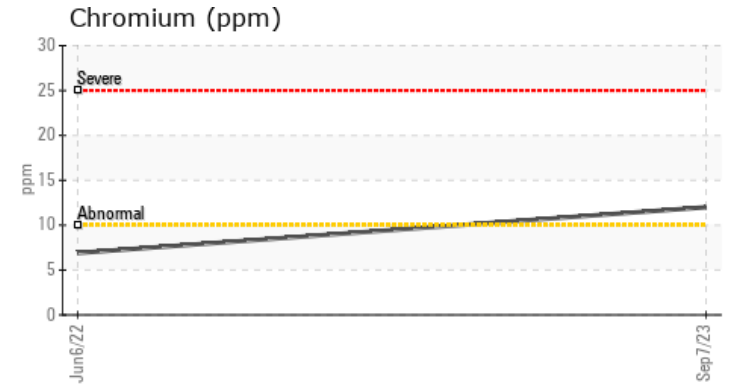
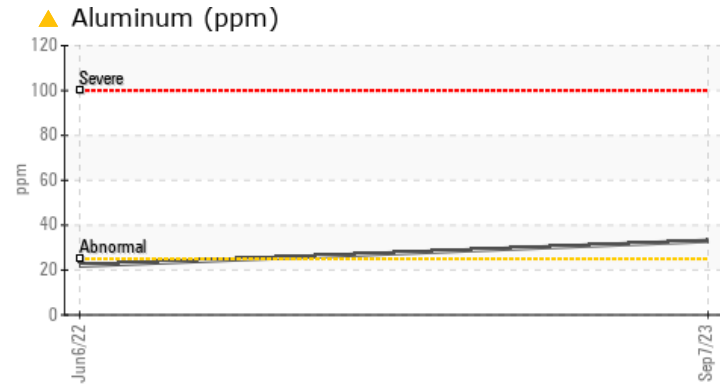
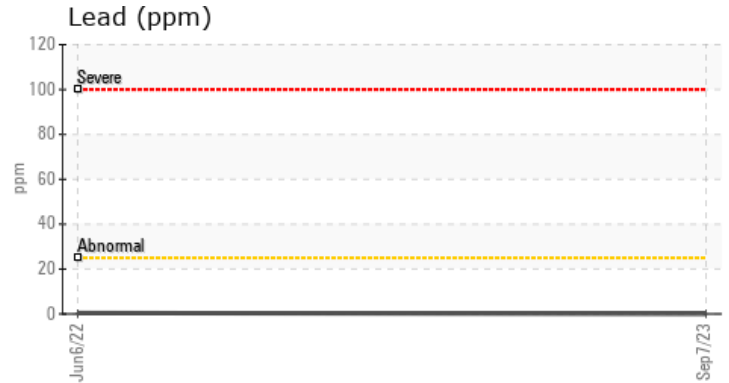
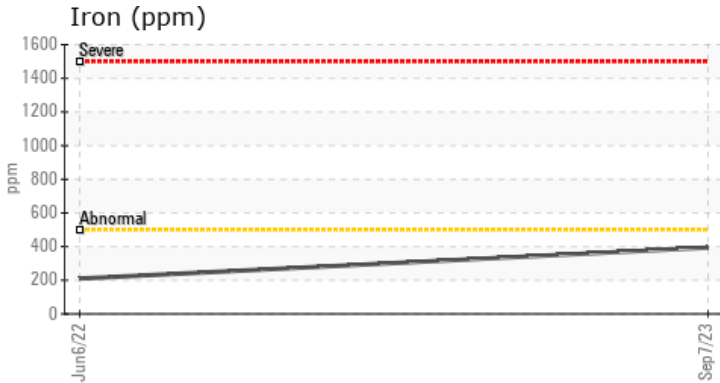
Depot: VOLV00142
Unique No: 10643525
Signed: Sean Felton
Report Date: 13 Sep 2023



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

354477 VOLVO EC300ELR 314370 - FRONT RIGHT FINAL DRIVE



Sample No: VCP416504

Oil Type: NOT GIVEN

Job No: 354477



SAMPLE INFORMATION

Sample Number	VCP416504	VCP354185	---	---
Sample Date	07 Aug 2023	06 Jun 2022	---	---
Machine Hours	1625	992	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Chngd	N/A	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	146	146	---	---
-------------	-----	------------	-----	-----	-----



CONTAMINATION

Silicon	ppm	▲ 179	▲ 215	---	---
Sodium	ppm	■ 4	■ 4	---	---
Potassium	ppm	■ 22	■ 29	---	---

Diagnosis

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	■ 498	■ 341	---	---
Copper	ppm	■ 0	■ <1	---	---
Lead	ppm	■ 0	■ <1	---	---
Tin	ppm	■ 0	■ <1	---	---
Aluminum	ppm	▲ 30	▲ 69	---	---
Chromium	ppm	■ 11	■ 8	---	---
Molybdenum	ppm	<1	<1	---	---
Nickel	ppm	■ <1	■ <1	---	---
Titanium	ppm	3	4	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	6	5	---	---
Vanadium	ppm	0	<1	---	---



ADDITIVES

Calcium	ppm	331	605	---	---
Magnesium	ppm	24	35	---	---
Zinc	ppm	15	24	---	---
Phosphorus	ppm	989	852	---	---
Barium	ppm	0	1	---	---
Boron	ppm	161	82	---	---

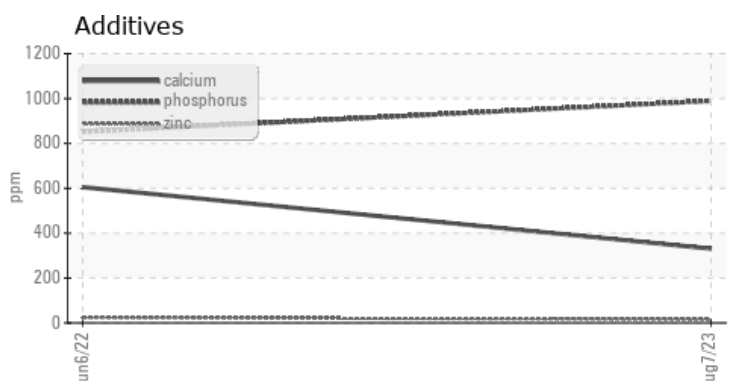
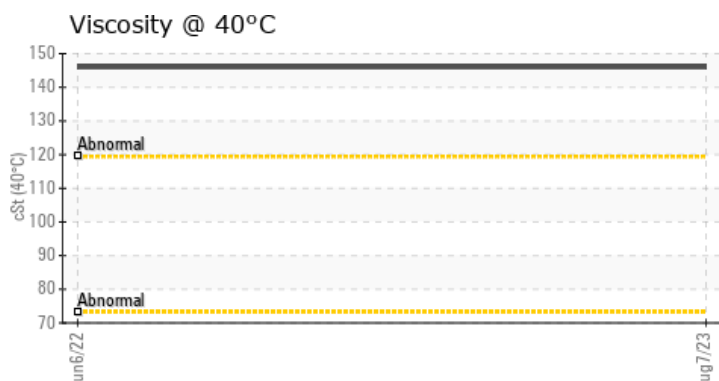
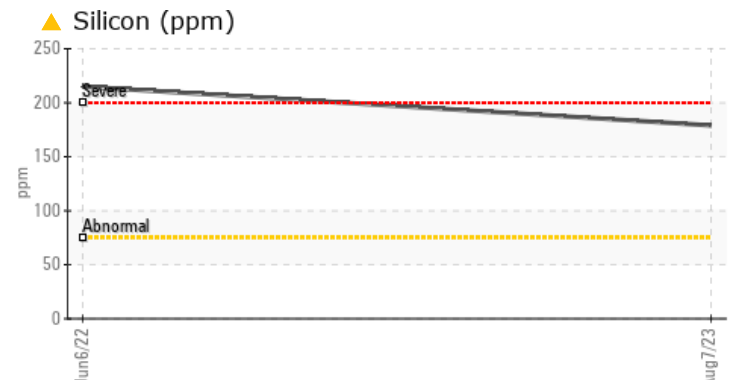
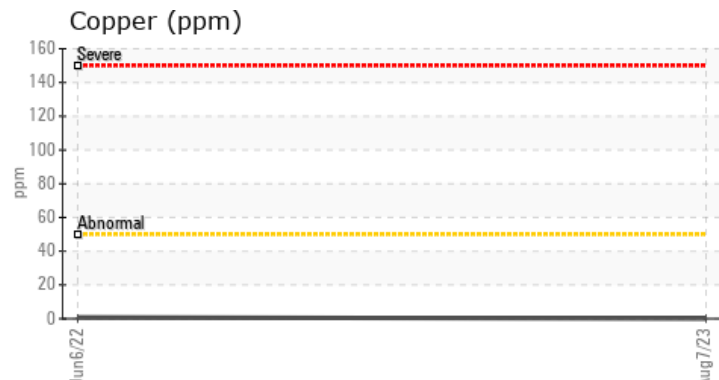
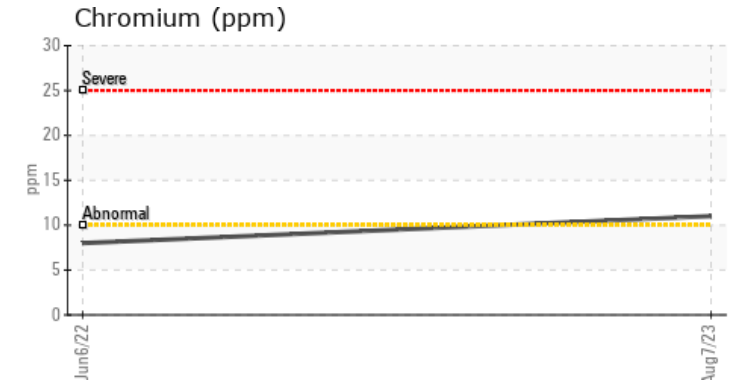
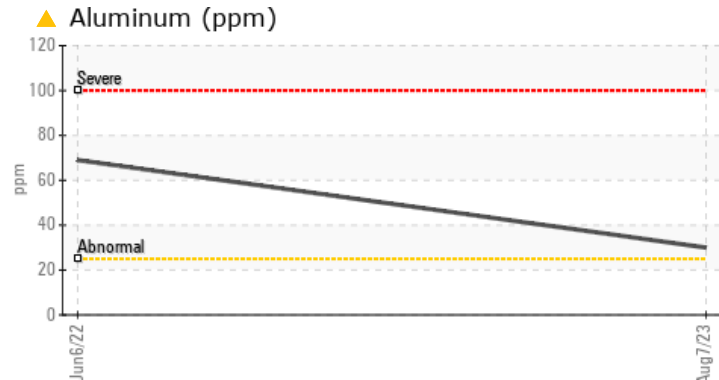
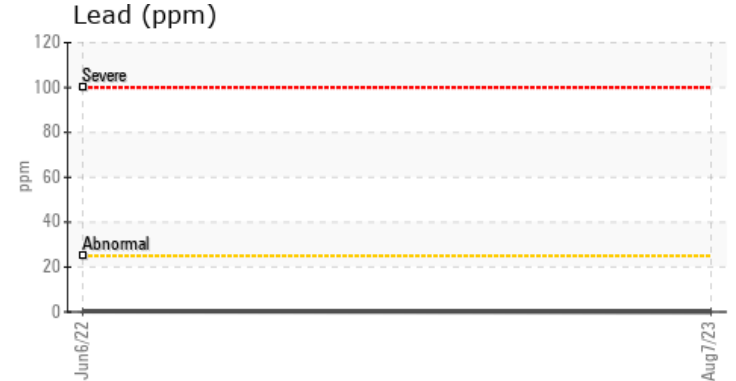
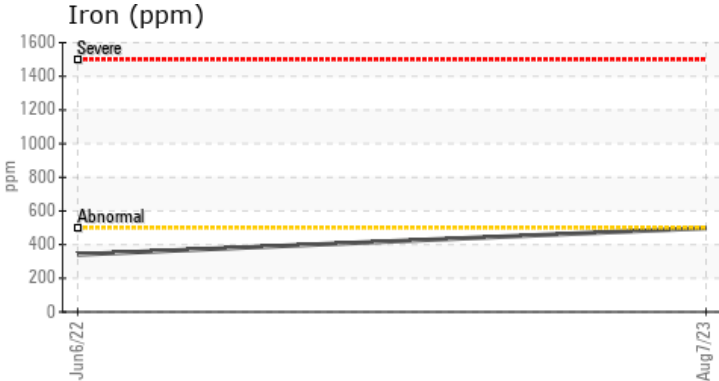
Depot: VOLV00142
Unique No: 10643524
Signed: Sean Felton
Report Date: 13 Sep 2023



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS





CONSTRUCTION EQUIPMENT

125395 VOLVO EC300ELR 314370 - REAR LEFT FINAL DRIVE



Sample No: VCP306990
Oil Type: GEAR OIL SAE 80W90
Job No: 125395



SAMPLE INFORMATION

Sample Number	VCP306990	---	---	---
Sample Date	23 Mar 2021	---	---	---
Machine Hours	456	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
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 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	█ 163	---	---	---
-------------	-----	-------	-----	-----	-----



CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 19	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 6	---	---	---

Diagnosis

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.
 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.



WEAR METALS

Iron	ppm	█ 313	---	---	---
Copper	ppm	█ <1	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 4	---	---	---
Chromium	ppm	█ 8	---	---	---
Molybdenum	ppm	█ <1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 6	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	█ 12	---	---	---
Magnesium	ppm	█ 2	---	---	---
Zinc	ppm	0	---	---	---
Phosphorus	ppm	█ 519	---	---	---
Barium	ppm	█ 4	---	---	---
Boron	ppm	█ 4	---	---	---

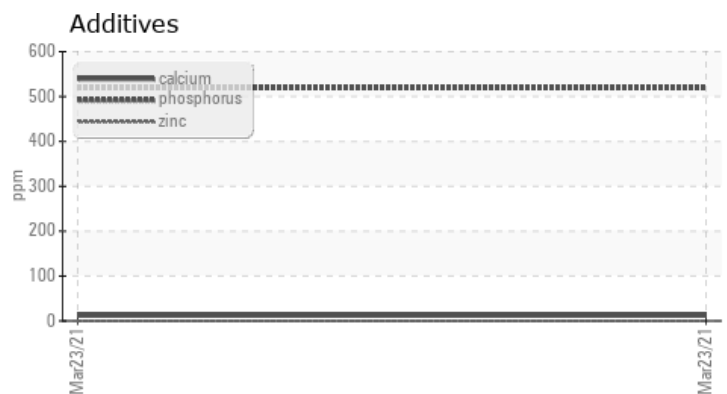
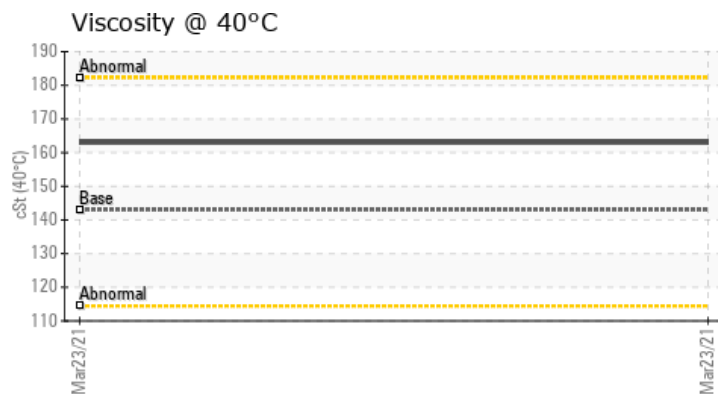
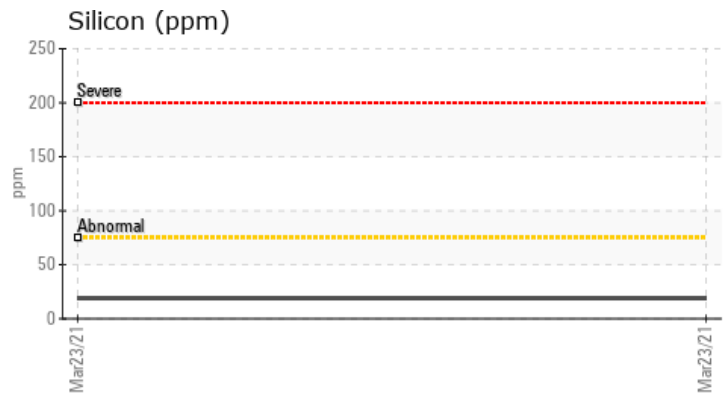
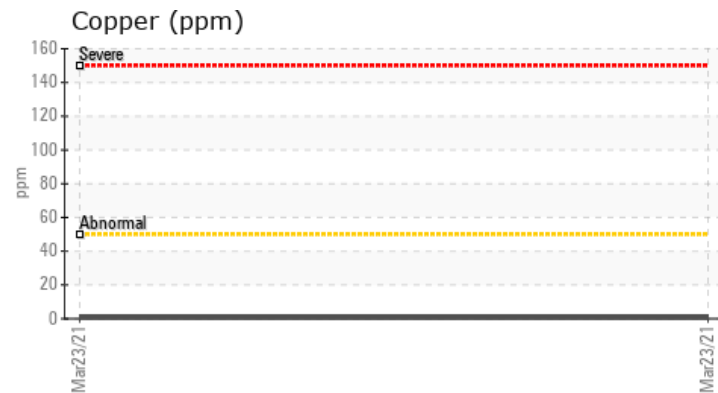
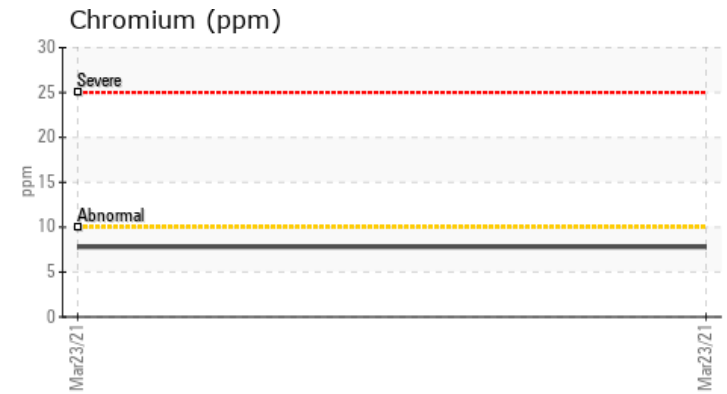
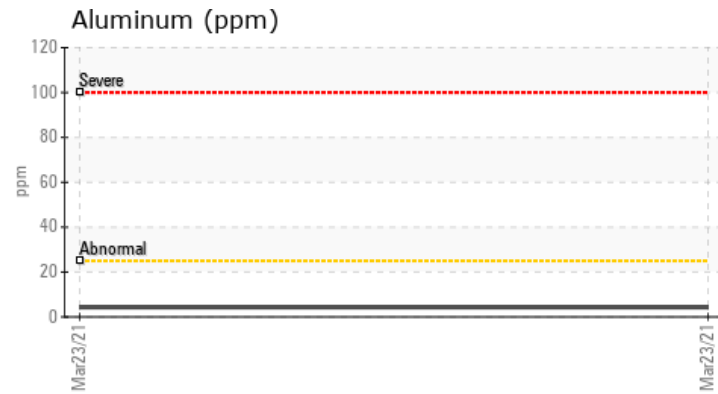
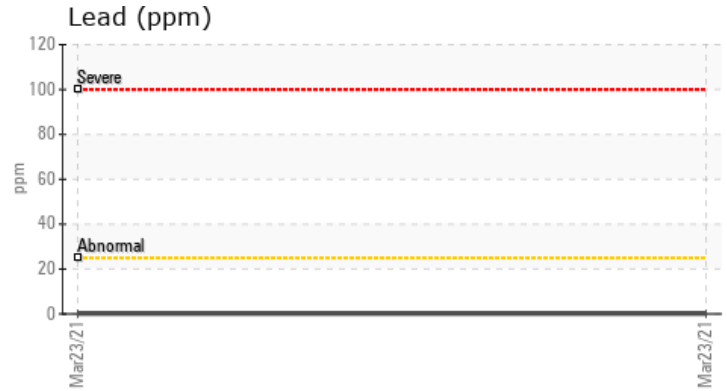
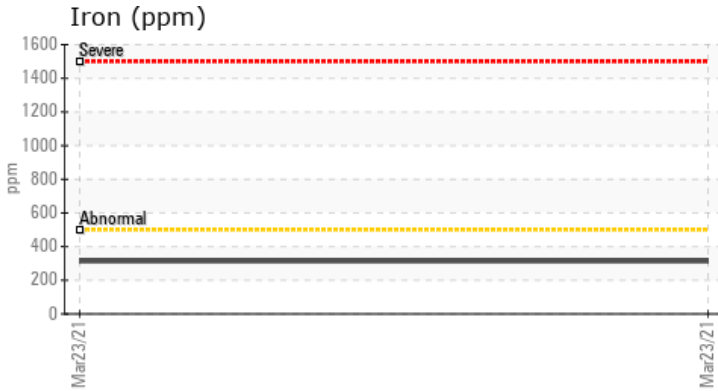
Depot: VOLVO0142
Unique No: 9440991
Signed: Wes Davis
Report Date: 31 Mar 2021



CONSTRUCTION EQUIPMENT



GRAPHS





CONSTRUCTION EQUIPMENT

125395 VOLVO EC300ELR 314370 - REAR RIGHT FINAL DRIVE



Sample No: VCP303400
Oil Type: GEAR OIL SAE 80W90
Job No: 125395



SAMPLE INFORMATION

Sample Number	VCP303400	---	---	---
Sample Date	23 Mar 2021	---	---	---
Machine Hours	456	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

ALTA EQUIPMENT

5985 COURT STREET ROAD
 SYRACUSE, NY
 US 13206
 Contact: JIM STRIGLE
 JIM.STRIGLE@ALTG.COM
 T: (315)437-2611
 F: (315)434-9471



OIL CONDITION

Visc @ 40°C	cSt	█ 163	---	---	---
-------------	-----	-------	-----	-----	-----



CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	█ 51	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 9	---	---	---



WEAR METALS

Iron	ppm	█ 315	---	---	---
Copper	ppm	█ <1	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ 16	---	---	---
Chromium	ppm	█ 8	---	---	---
Molybdenum	ppm	█ <1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	█ 6	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	█ 26	---	---	---
Magnesium	ppm	█ 7	---	---	---
Zinc	ppm	0	---	---	---
Phosphorus	ppm	█ 531	---	---	---
Barium	ppm	█ 5	---	---	---
Boron	ppm	█ 8	---	---	---

Diagnosis

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.
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CONSTRUCTION EQUIPMENT



GRAPHS

