



CONSTRUCTION EQUIPMENT

SPM716819 VOLVO EC160D 210090 - HYDRAULIC SYSTEM



Sample No: VCP446755
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: SPM716819



SAMPLE INFORMATION

Sample Number	VCP446755	VCP415257	VCP422725	VCP404364
Sample Date	24 May 2024	28 Aug 2023	26 Apr 2023	10 Jan 2023
Machine Hours	9689	8565	7910	7275
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	ABNORMAL	ABNORMAL	SEVERE

CALUMET CITY AUTO WRECKERS
 630 E STATE ST
 CALUMET CITY, IL
 US 60409
 Contact: GARY



OIL CONDITION

Visc @ 40°C	cSt	32.8	34.8	36.1	37.5
Acid Number (AN)	mg KOH/g	0.36	0.46	0.41	0.42

T: (815)600-9027
 F:



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		8646	29374	62945	2602
Particles >6µm		1118	6805	13694	562
Particles >14µm		27	363	998	40
ISO 4406:1999 (c)		20/17/12	22/20/16	23/21/17	19/16/12
Silicon	ppm	48	80	97	127
Sodium	ppm	<1	0	<1	0
Potassium	ppm	<1	1	0	3

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. 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 acceptable for the time in service.



WEAR METALS

Iron	ppm	10	13	11	10
Copper	ppm	23	24	19	24
Lead	ppm	<1	<1	0	0
Tin	ppm	2	3	3	5
Aluminum	ppm	2	<1	1	0
Chromium	ppm	3	1	<1	<1
Molybdenum	ppm	2	2	2	4
Nickel	ppm	<1	<1	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	<1	0
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	84	148	174	238
Magnesium	ppm	5	4	4	8
Zinc	ppm	335	392	375	398
Phosphorus	ppm	288	333	335	334
Barium	ppm	0	2	0	0
Boron	ppm	2	2	3	7

Depot: CALCALIL
Unique No: 11084395
Signed: Angela Borella
Report Date: 18 Jun 2024

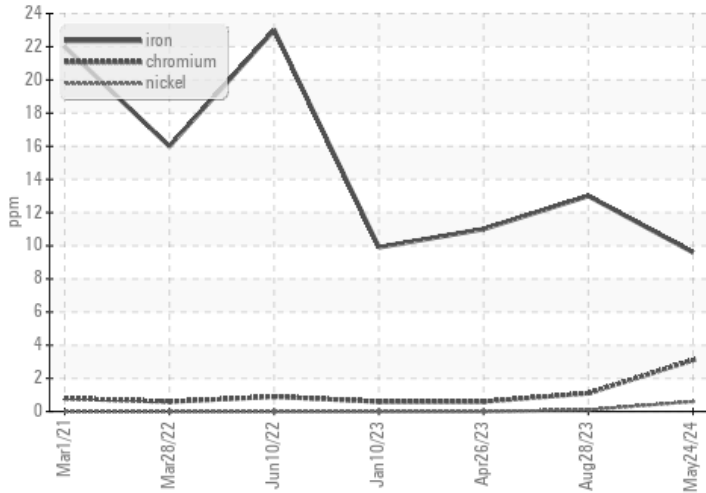


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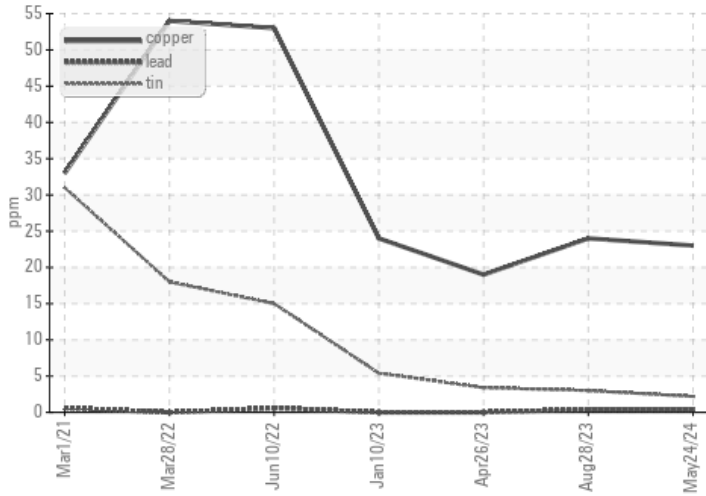


GRAPHS

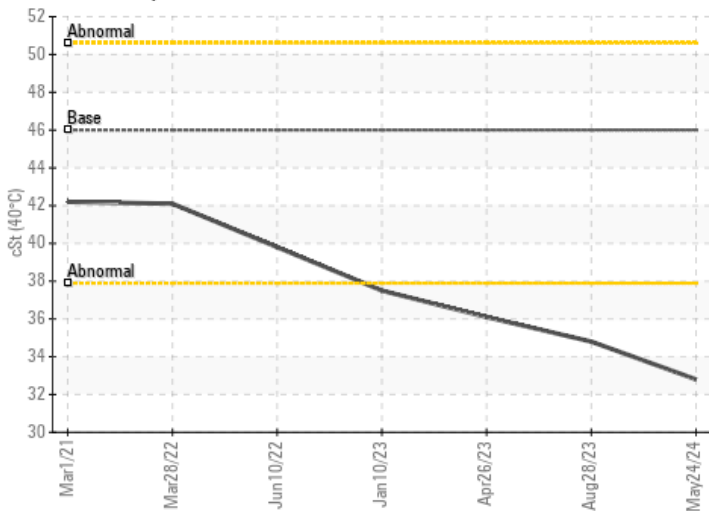
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

