CONSTRUCTION EQUIPMENT
729036 VOLVO A40G 342177 - HYDRAULIC SYSTEM

Sample No: VCP443573
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 729036

RIPA AND ASSOCIATES
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SAMPLE INFORMATION

Sample Number		**VCP443573**	VCP424436	VCP358183	VCP336743
Sample Date		**06 Jun 2024**	29 Jun 2023	12 Sep 2022	02 Mar 2022
Machine Hours		**11658**	10619	9334	8227
Oil Hours		**3000**	2000	500	1500
Oil Changed		**Not Changd**	Not Changd	Not Changd	Changed
Sample Status		**ABNORMAL**	ABNORMAL	ATTENTION	ABNORMAL

OIL CONDITION

Visc @ 40°C	cSt	**45.9**	43.6	44.1	41.3
Acid Number (AN)	mg KOH/g	**0.38**	0.36	0.78	0.38

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**12062**	---	24150	140278
Particles >6µm		**4087**	---	329	78589
Particles >14µm		**355**	---	8	19608
ISO 4406:1999 (c)		**21/19/16**	---	22/16/10	24/23/21
Silicon	ppm	**5**	5	15	5
Sodium	ppm	**3**	0	2	3
Potassium	ppm	**0**	<1	0	0

WEAR METALS

Iron	ppm	**15**	18	18	22
Copper	ppm	**5**	6	62	9
Lead	ppm	**2**	3	<1	4
Tin	ppm	**0**	<1	<1	0
Aluminum	ppm	**1**	2	2	2
Chromium	ppm	**<1**	<1	<1	<1
Molybdenum	ppm	**0**	<1	<1	<1
Nickel	ppm	**0**	0	1	0
Titanium	ppm	**0**	<1	<1	<1
Silver	ppm	**0**	0	0	0
Manganese	ppm	**0**	0	<1	<1
Vanadium	ppm	**0**	0	0	0

ADDITIVES

Calcium	ppm	**76**	93	3951	93
Magnesium	ppm	**8**	7	11	6
Zinc	ppm	**408**	461	1470	427
Phosphorus	ppm	**341**	346	1225	373
Barium	ppm	**0**	1	0	0
Boron	ppm	**0**	0	127	0

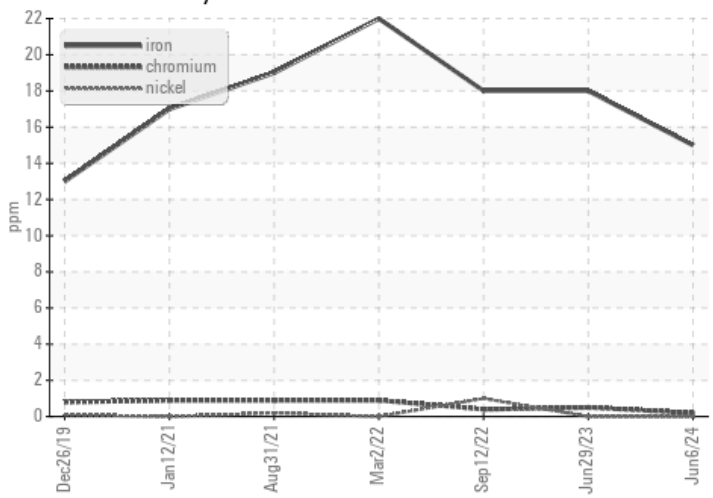
Diagnosis

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

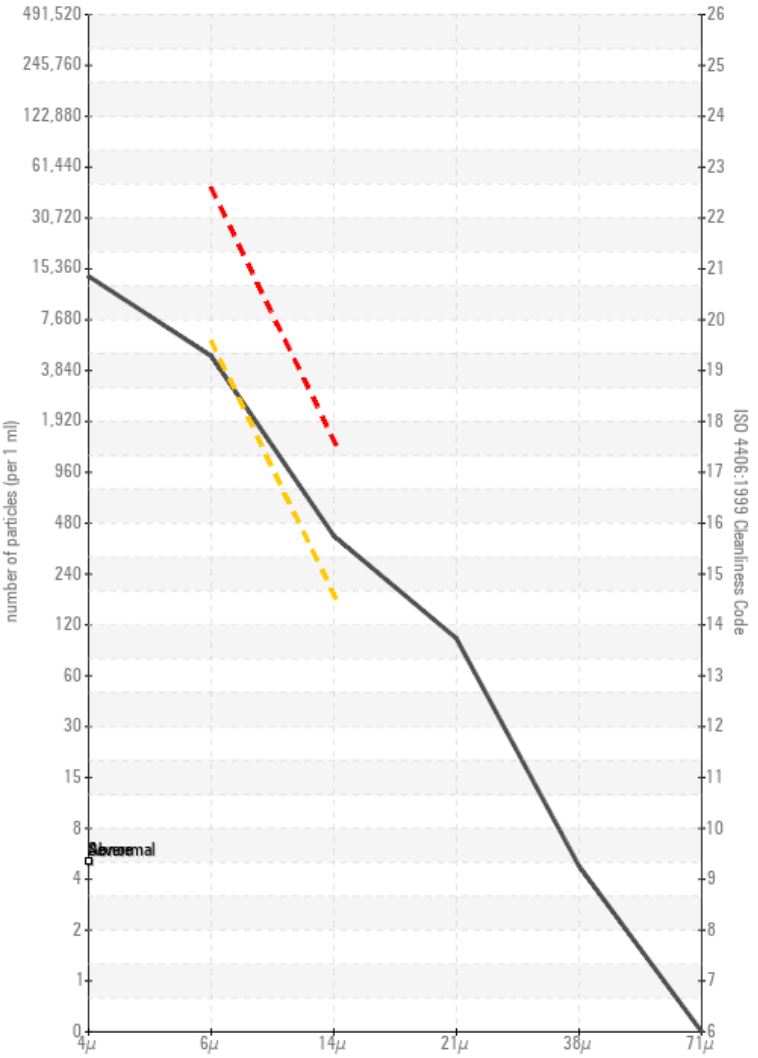
Depot: RIPTAM
Unique No: 11126531
Signed: Wes Davis
Report Date: 17 Jul 2024

GRAPHS

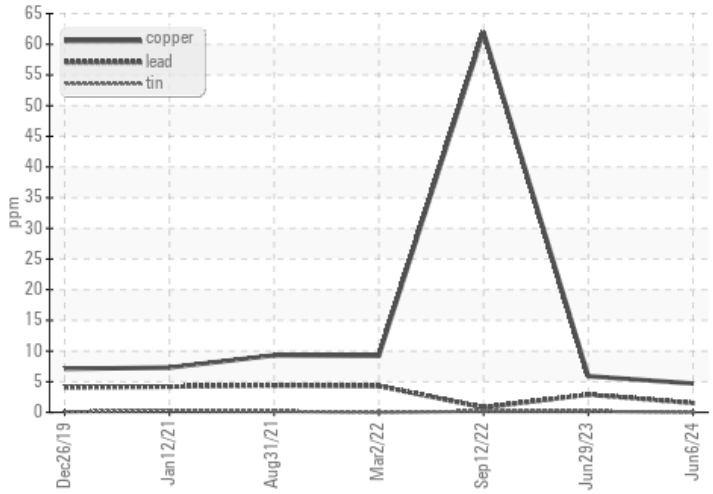
Ferrous Alloys



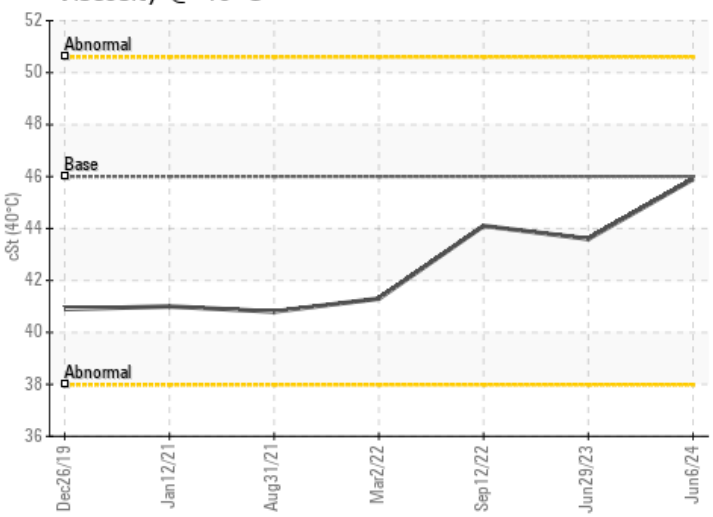
Particle Count



Non-ferrous Metals



Viscosity @ 40°C



Acid Number