



# CONSTRUCTION EQUIPMENT

8000252630 CATERPILLAR 980H 6490 - HYDRAULIC SYSTEM



**Sample No:** VCP274416  
**Oil Type:** VOLVO SUPER TRANSMISSION OIL SAE 10W  
**Job No:** 8000252630

**STRONGCO EQUIPMENT INC.**  
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## Diagnosis

We advise that you check all areas where contaminants can enter the system. Check seals and/or filters for points of contaminant entry. We advise that you check for visible metal particles in the oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. Light concentration of visible metal present. Particles >14µm are severely high. Particles >21µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. Silicon ppm levels are abnormally high. Elemental level of silicon (Si) above normal indicating ingress of seal material and/or dirt. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



## SAMPLE INFORMATION

Sample Number		<b>VCP274416</b>	VCP252135	VCP251237	VCP251136
Sample Date		<b>06 Aug 2020</b>	09 May 2020	27 Dec 2019	20 Nov 2019
Machine Hours		<b>14683</b>	13928	13546	13296
Oil Hours		<b>0</b>	0	0	0
Oil Changed		<b>Not Changd</b>	Not Changd	Not Changd	Not Changd
Sample Status		<b>SEVERE</b>	ABNORMAL	ABNORMAL	ATTENTION



## OIL CONDITION

Visc @ 40°C	cSt	<b>39.1</b>	39.2	39.7	38.9
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## CONTAMINATION

Particles >4µm		<b>146929</b>	18433	15929	7979
Particles >6µm		<b>87085</b>	2589	1302	528
Particles >14µm		<b>2438</b>	77	44	32
ISO 4406:1999 (c)		<b>24/24/18</b>	21/19/13 (c)	21/18/13	20/16/12
Silicon	ppm	<b>26</b>	14	14	13
Sodium	ppm	<b>2</b>	3	3	3
Potassium	ppm	<b>5</b>	4	4	4



## WEAR METALS

PQ		<b>8</b>	---	---	---
Iron	ppm	<b>23</b>	19	18	17
Copper	ppm	<b>8</b>	8	8	8
Lead	ppm	<b>&lt;1</b>	1	1	1
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>12</b>	9	9	8
Chromium	ppm	<b>2</b>	2	2	1
Molybdenum	ppm	<b>47</b>	19	18	15
Nickel	ppm	<b>&lt;1</b>	<1	<1	<1
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>0</b>	<1	1	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>1683</b>	1466	1479	1451
Magnesium	ppm	<b>24</b>	28	28	28
Zinc	ppm	<b>998</b>	1030	1056	1054
Phosphorus	ppm	<b>875</b>	868	885	863
Barium	ppm	<b>0</b>	<1	<1	<1
Boron	ppm	<b>3</b>	2	2	1

**Depot:** SHEDAR  
**Unique No:** 5085689  
**Signed:** Kevin Marson  
**Report Date:** 14 Aug 2020

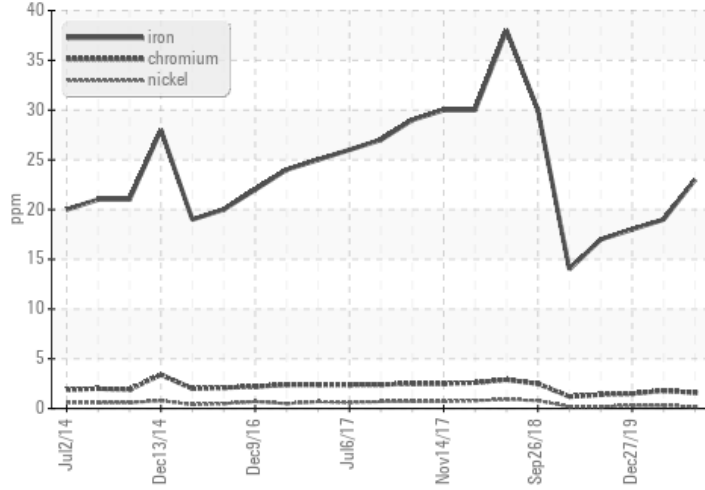


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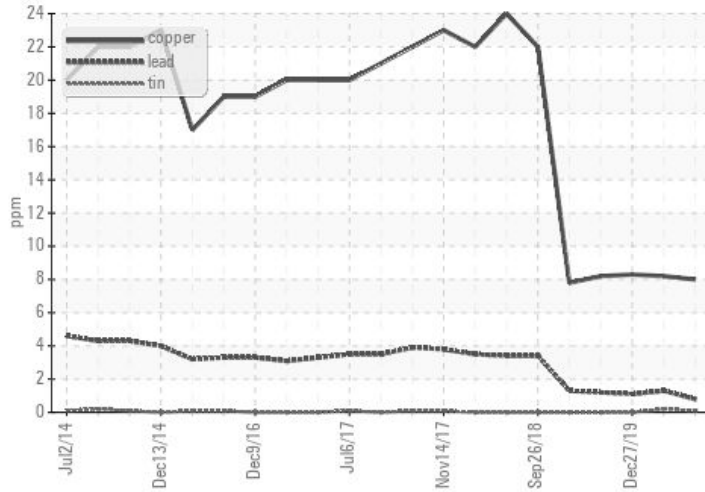


## GRAPHS

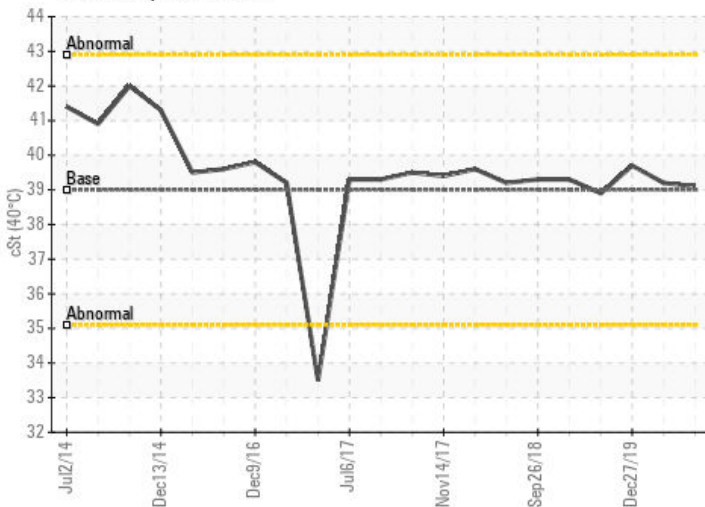
### Ferrous Alloys



### Non-ferrous Metals



### Viscosity @ 40°C



Particle Filter (Magn: 100 x)

