



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
22C#03 500 HP

Component
Winch

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please note that this is a corrected copy for data entry updates.

WEAR

All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

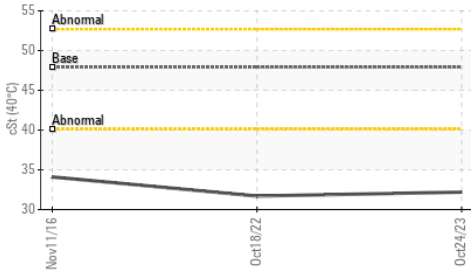
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0811227	WC0627025	WC
Sample Date		Client Info		24 Oct 2023	18 Oct 2022	11 Nov 2016
Machine Age	days	Client Info		0	0	0
Oil Age	days	Client Info		0	0	0
Filter Age	days	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

Iron	ppm	ASTM D5185(m)	>30	9	8	2
Chromium	ppm	ASTM D5185(m)	>2	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>5	0	<1	0
Lead	ppm	ASTM D5185(m)	>70	2	2	<1
Copper	ppm	ASTM D5185(m)	>65	43	44	18
Tin	ppm	ASTM D5185(m)	>9	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

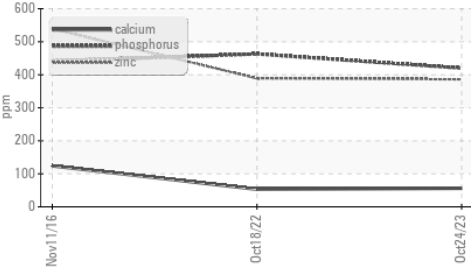
Silicon	ppm	ASTM D5185(m)	>30	<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	.2%	NEG

Sodium	ppm	ASTM D5185(m)		18	17	11
Boron	ppm	ASTM D5185(m)	0	0	0	<1
Barium	ppm	ASTM D5185(m)	0	<1	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	<1	<1
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	6	6	6
Calcium	ppm	ASTM D5185(m)	100	56	53	124
Phosphorus	ppm	ASTM D5185(m)	670	420	463	441
Zinc	ppm	ASTM D5185(m)	850	386	389	539
Sulfur	ppm	ASTM D5185(m)	1600	1452	1575	1467
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	▲ 32.2	▲ 31.7	▲ 34.1

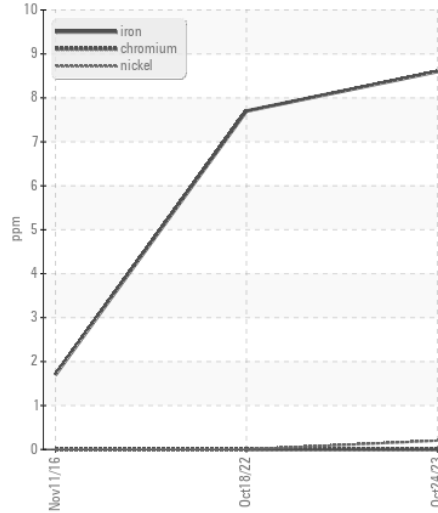
▲ Viscosity @ 40°C



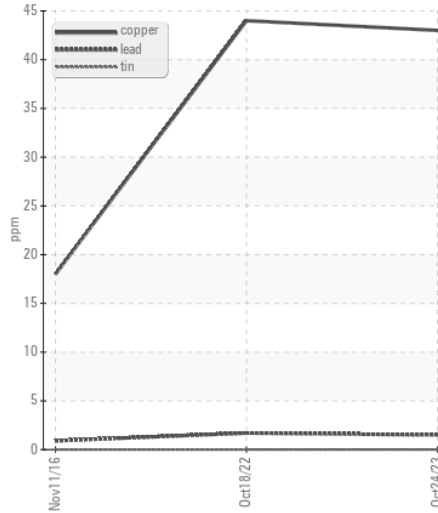
Additives



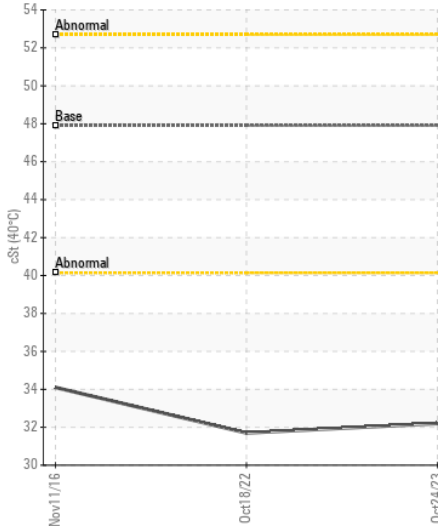
Ferrous Alloys



Non-ferrous Metals



▲ Viscosity @ 40°C



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0811227
Lab Number : 02593241
Unique Number : 5670320
Test Package : MAR 1

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 CCGS Amundsen, 101 Boul. Champlain
 Quebec, QC
 CA G1K 7Y7
 Contact: Chief Engineer
 amundsense@ccgs-ngcc.gc.ca
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.