



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
17C01F#0302 - Alaska Crane (S/N MCF8560.97.1295)

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX MV 32 (1940 LTR)

RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0747566	WC0747580	WC0747579
Sample Date		Client Info		31 Jan 2024	07 Nov 2023	04 Nov 2023
Machine Age	hrs	Client Info		10592	10515	10509
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	2	2	1
Chromium	ppm	ASTM D5185(m)	>10	0	0	0
Nickel	ppm	ASTM D5185(m)	>10	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>10	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>20	0	1	<1
Copper	ppm	ASTM D5185(m)	>20	3	3	3
Tin	ppm	ASTM D5185(m)	>10	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

CONTAMINATION

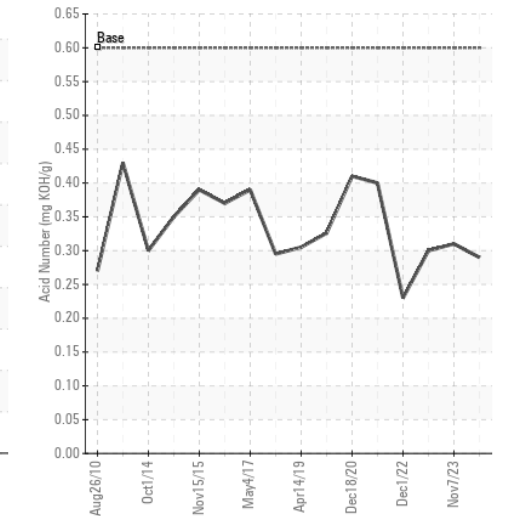
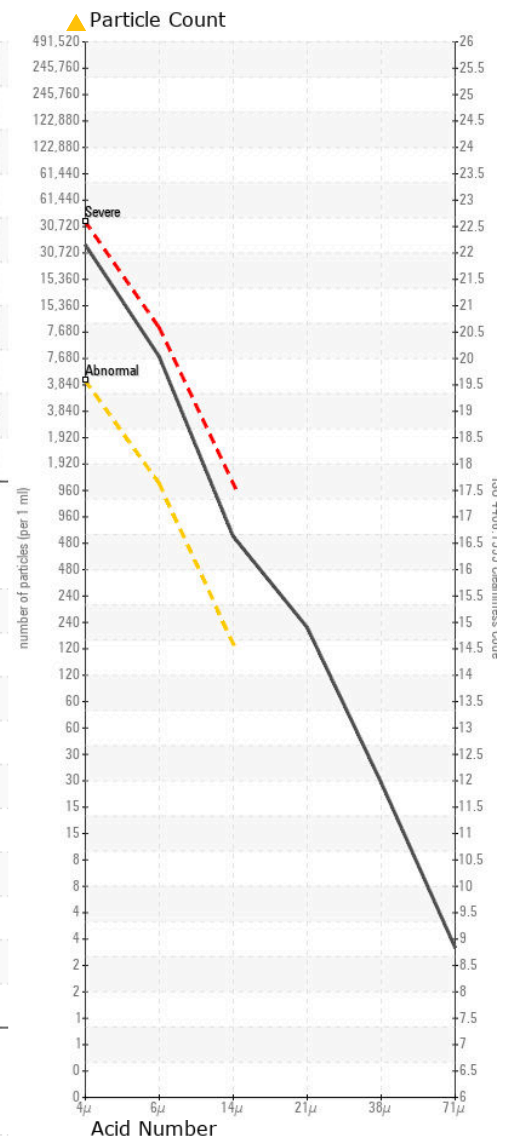
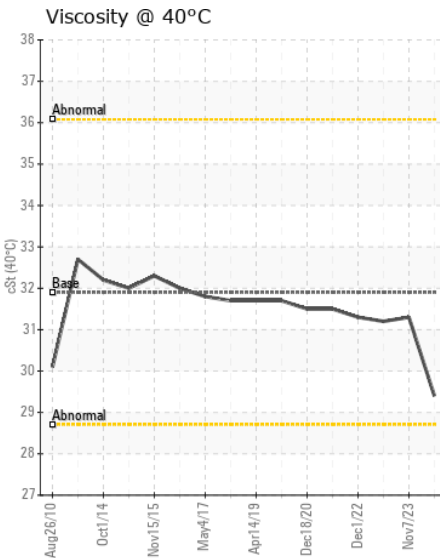
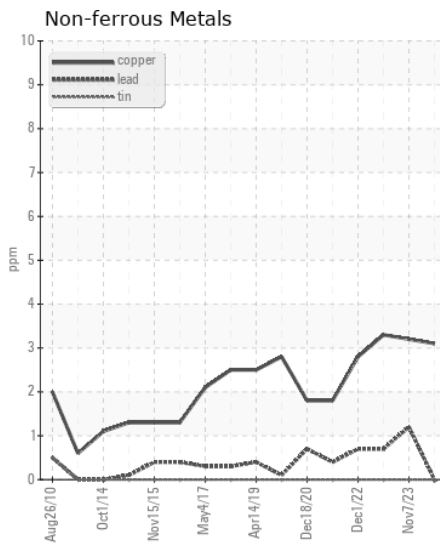
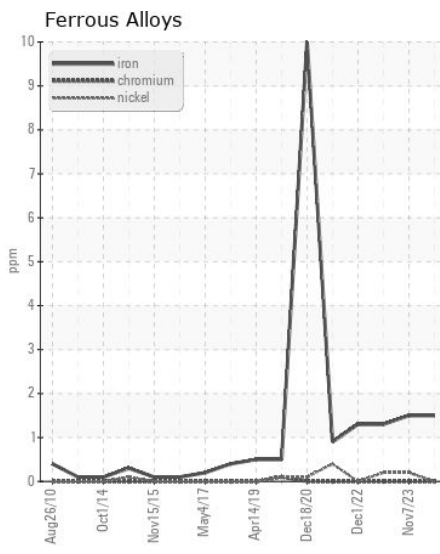
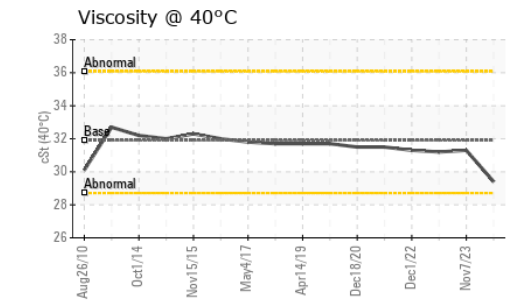
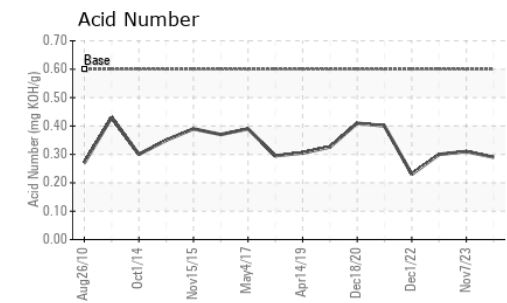
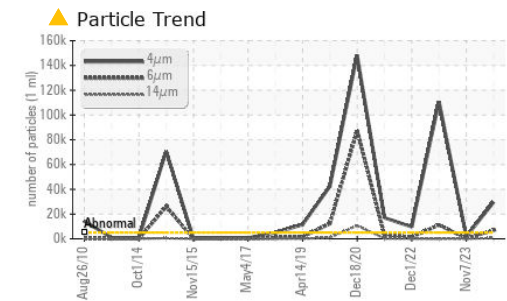
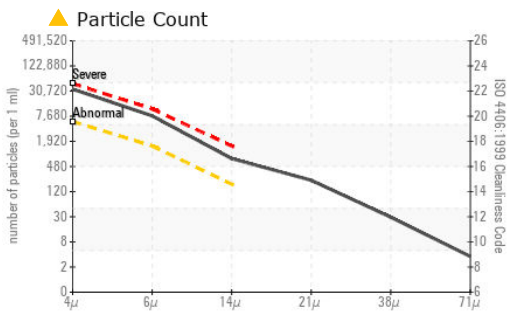
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	<1	2	2
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 29612	1792	▲ 110843
Particles >6µm		ASTM D7647	>1300	▲ 6838	275	▲ 11193
Particles >14µm		ASTM D7647	>160	▲ 651	36	42
Particles >21µm		ASTM D7647	>40	▲ 198	11	8
Particles >38µm		ASTM D7647	>10	▲ 26	1	2
Particles >71µm		ASTM D7647	>3	3	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/20/17	18/15/12	▲ 24/21/13
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	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*	>0.05	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185(m)		<1	2	1
Boron	ppm	ASTM D5185(m)	0	0	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	1	<1	<1
Calcium	ppm	ASTM D5185(m)	50	46	44	44
Phosphorus	ppm	ASTM D5185(m)	330	325	319	329
Zinc	ppm	ASTM D5185(m)	430	373	343	365
Sulfur	ppm	ASTM D5185(m)	760	934	896	947
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.29	0.31	0.30
Visc @ 40°C	cSt	ASTM D7279(m)	31.9	29.4	31.3	31.2



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0747566
Lab Number : 02635289
Unique Number : 5776442
Test Package : MAR 2

Received : 14 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Wes Davis

CANADIAN COAST GUARD
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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.