



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
#261211 STEERING SYSTEM 1 (S/N 09048-2)
 Component
Port Steering
 Fluid
PETRO CANADA HYDREX AW 32 (114 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0867271	WC0635261	WC0599729
Sample Date		Client Info		11 May 2024	19 Feb 2022	31 Oct 2021
Machine Age	hrs	Client Info		17285	15433	14480
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	1120
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>60	3	3	3
Chromium	ppm	ASTM D5185(m)	>12	1	1	1
Nickel	ppm	ASTM D5185(m)	>6	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>4	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>12	0	<1	<1
Copper	ppm	ASTM D5185(m)	>30	7	6	7
Tin	ppm	ASTM D5185(m)		0	0	<1
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

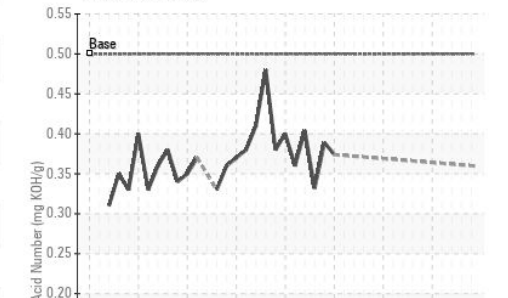
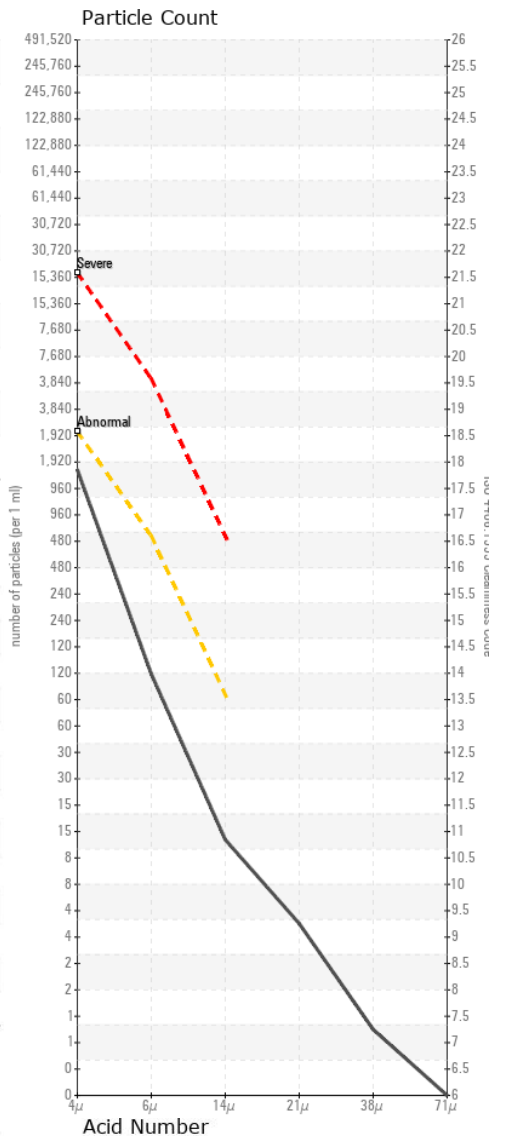
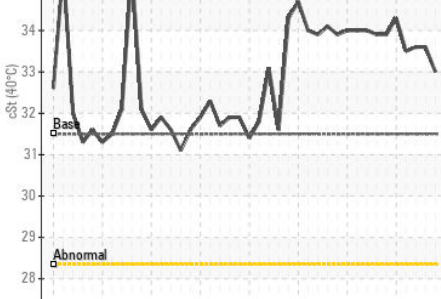
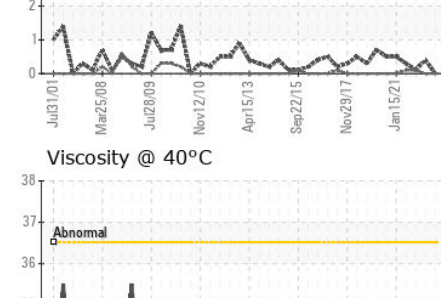
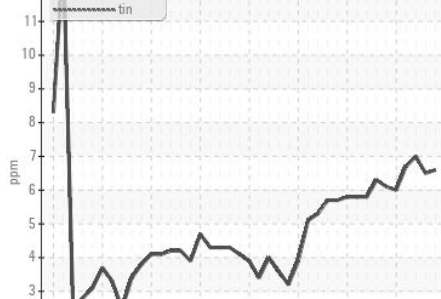
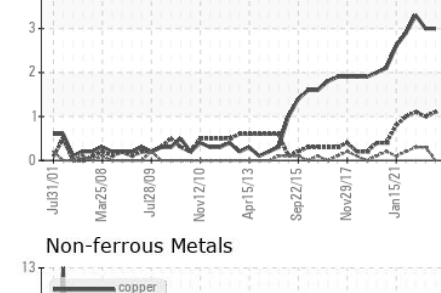
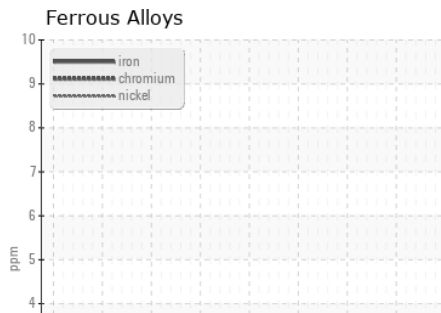
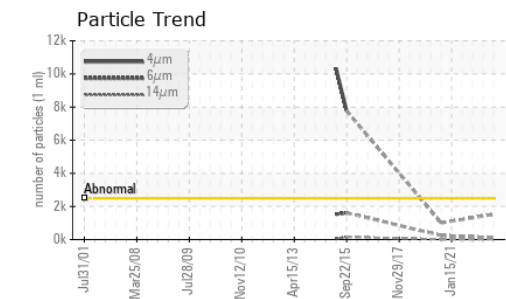
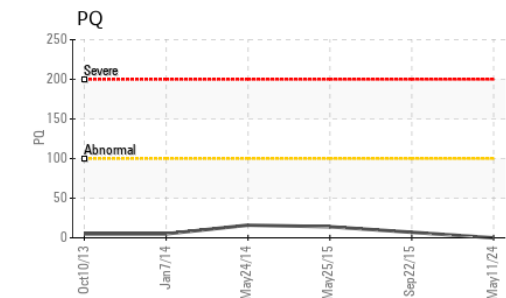
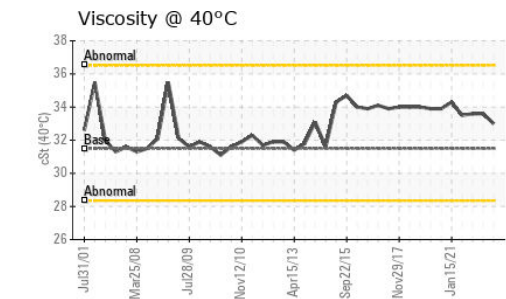
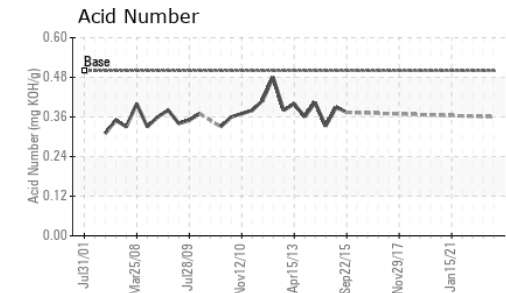
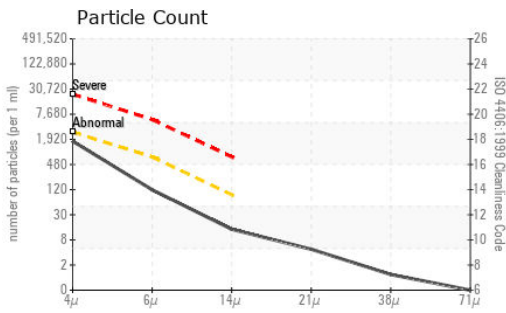
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>10	0	0	<1
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1
Water		WC Method		NEG	NEG	NEG
Particles >4µm		ASTM D7647	>2500	1522	---	---
Particles >6µm		ASTM D7647	>640	105	---	---
Particles >14µm		ASTM D7647	>80	12	---	---
Particles >21µm		ASTM D7647	>20	4	---	---
Particles >38µm		ASTM D7647	>4	1	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	18/14/11	---	---
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*		NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

Sodium	ppm	ASTM D5185(m)		0	0	0
Boron	ppm	ASTM D5185(m)	0	<1	<1	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	0
Calcium	ppm	ASTM D5185(m)	50	58	56	61
Phosphorus	ppm	ASTM D5185(m)	330	290	270	306
Zinc	ppm	ASTM D5185(m)	430	356	337	360
Sulfur	ppm	ASTM D5185(m)	760	1215	1300	1362
Acid Number (AN)	mg KOH/g	ASTM D974*	0.50	0.36	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	31.5	33.0	33.6	33.6



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0867271
Lab Number : 02636354
Unique Number : 5785516
Test Package : MAR 2 (Additional Tests: PQ, PrcCount, TAN Man)

Received : 17 May 2024
Tested : 21 May 2024
Diagnosed : 21 May 2024 - Wes Davis

CCGS Cygnus - Fleet Tech Stores
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 CA A1C 5X1
 Contact: Chief Engineer
 CygnusCE@CYG.ccgsc-ngcc.gc.ca

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.

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