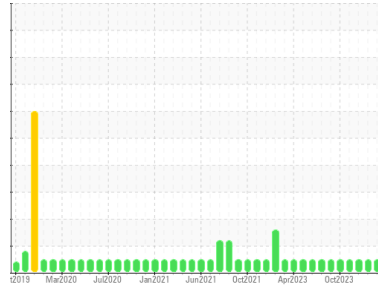


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Framo [450264315]**  
Machine Id  
**HPU VRC Hyd. Power (S/N Sample Tag IH-65201-S1)**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX MV ARCTIC 15 (310 LTR)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

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

**Fluid Condition**

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

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC</b>	PC0080330	PC
Sample Date	Client Info	<b>15 Feb 2024</b>	17 Jan 2024	28 Dec 2023
Machine Age	hrs	Client Info	<b>0</b>	0
Oil Age	hrs	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

**CONTAMINATION**

method	limit/base	current	history1	history2
Water	WC Method >0.05	<b>NEG</b>	NEG	NEG

**WEAR METALS**

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>0</b>	0	0
Iron	ppm ASTM D5185(m) >20	<b>0</b>	0	0
Chromium	ppm ASTM D5185(m) >10	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m) >10	<b>0</b>	<1	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >10	<b>&lt;1</b>	<1	<1
Lead	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185(m) >10	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

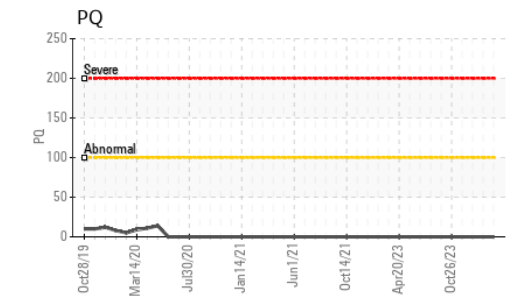
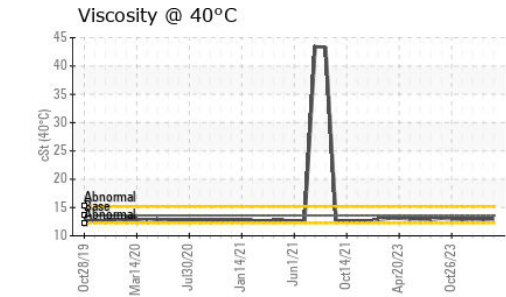
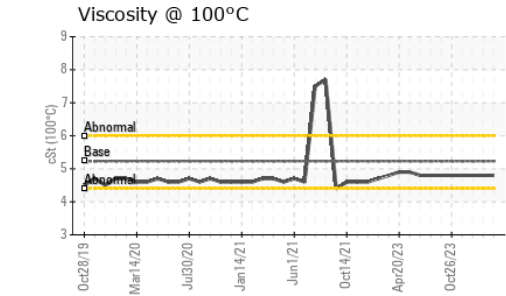
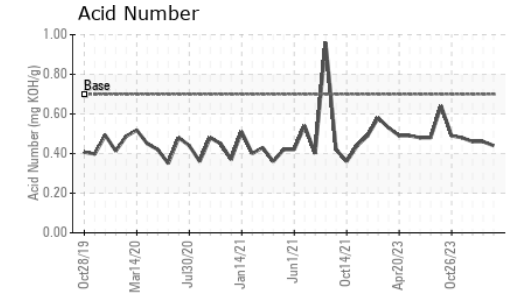
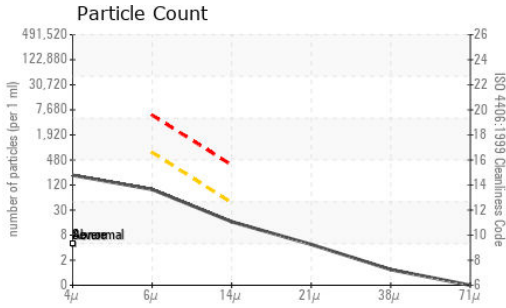
**ADDITIVES**

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Magnesium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Calcium	ppm ASTM D5185(m) 50	<b>30</b>	29	29
Phosphorus	ppm ASTM D5185(m) 330	<b>334</b>	319	324
Zinc	ppm ASTM D5185(m) 430	<b>396</b>	394	386
Sulfur	ppm ASTM D5185(m) 760	<b>812</b>	795	804
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

**CONTAMINANTS**

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<b>&lt;1</b>	<1	<1
Sodium	ppm ASTM D5185(m)	<b>0</b>	0	0
Potassium	ppm ASTM D5185(m) >20	<b>1</b>	<1	<1

# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC **Received** : 12 Mar 2024  
**Lab Number** : **02621463** **Tested** : 13 Mar 2024  
**Unique Number** : 5746582 **Diagnosed** : 13 Mar 2024 - Kevin Marson  
**Test Package** : MAR 2 ( Additional Tests: KV100, PQ, VI )

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.

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647			<b>182</b>	319	693
Particles >6µm	ASTM D7647	>640		<b>83</b>	94	169
Particles >14µm	ASTM D7647	>40		<b>14</b>	10	20
Particles >21µm	ASTM D7647	>10		<b>4</b>	4	6
Particles >38µm	ASTM D7647	>3		<b>1</b>	1	1
Particles >71µm	ASTM D7647	>3		<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/16/12		<b>15/14/11</b>	15/14/10	17/15/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	<b>0.44</b>	0.46	0.46

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	13.6	<b>13.0</b>	12.9	13.0
Visc @ 100°C	cSt	ASTM D7279(m)	5.23	<b>4.8</b>	4.8	4.8
Viscosity Index (VI)	Scale	ASTM D2270*	394	<b>359</b>	364	359

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						