



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**HPP**  
Machine Id  
**VESSEL 1 PUMP 2 (S/N B44050)**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA PURITY FG AW HYDRAULIC 46 (90 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0887344</b>	WC0887311	WC0882371
Sample Date		Client Info		<b>03 Jan 2024</b>	28 Dec 2023	30 Nov 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	0
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

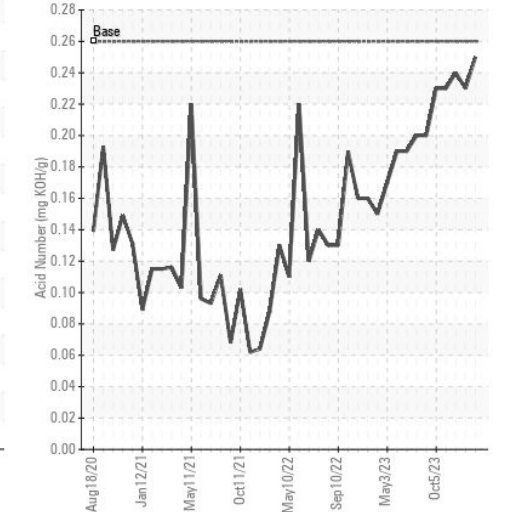
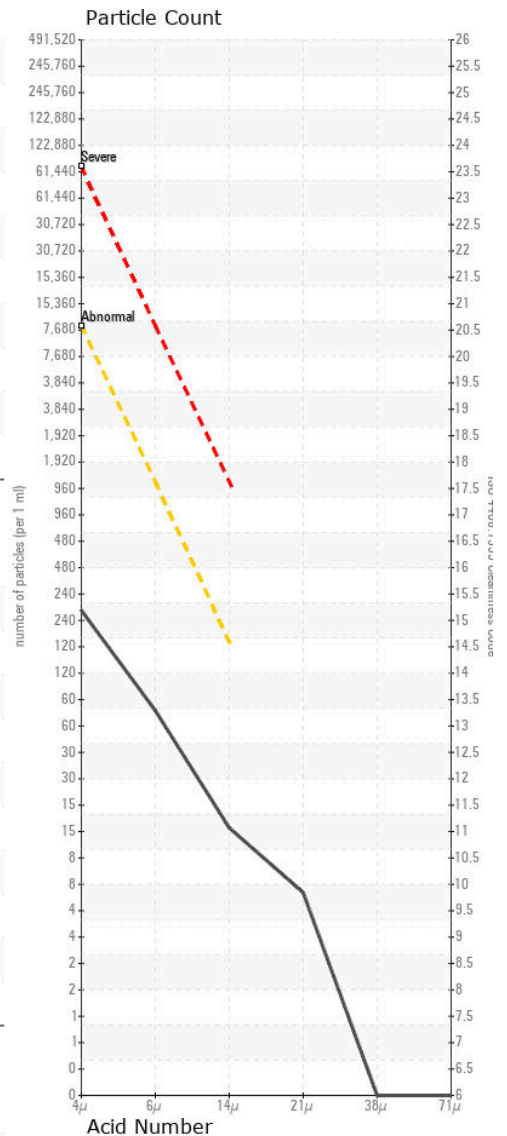
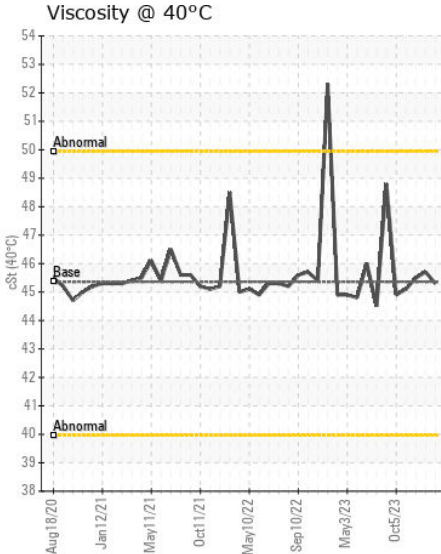
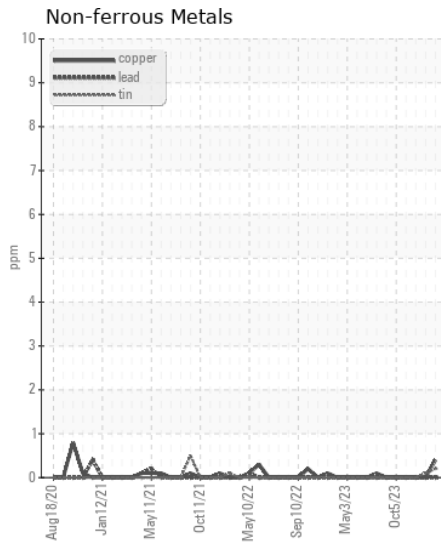
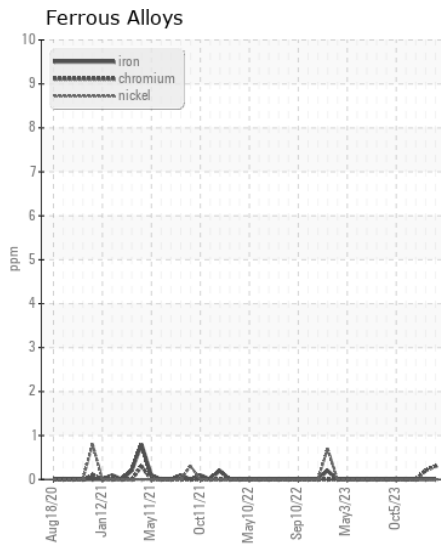
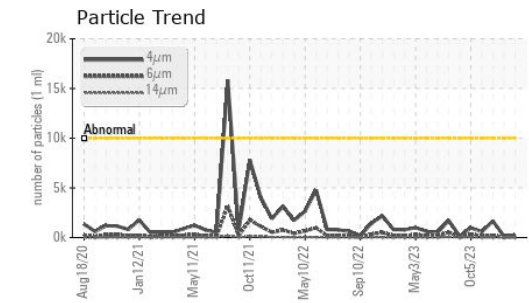
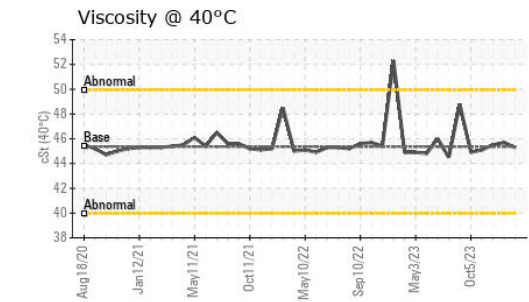
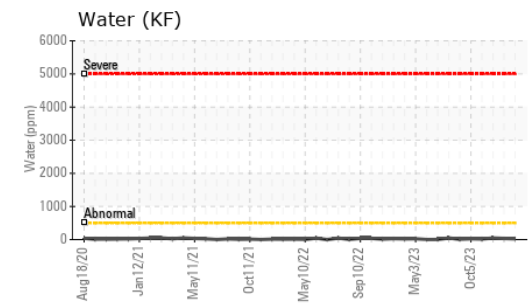
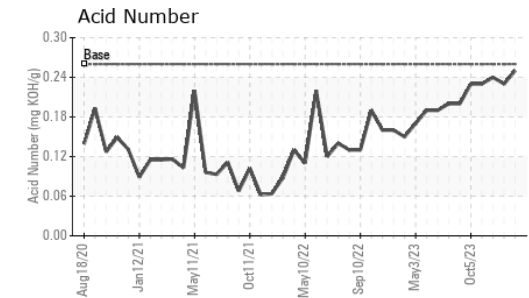
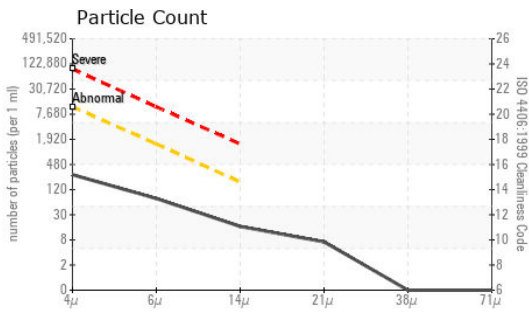
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>3</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	0
Water	%	ASTM D6304	>0.05	<b>0.002</b>	0.003	0.004
ppm Water	ppm	ASTM D6304	>500	<b>22</b>	34	48
Particles >4µm		ASTM D7647	>10000	<b>241</b>	139	1666
Particles >6µm		ASTM D7647	>1300	<b>65</b>	33	206
Particles >14µm		ASTM D7647	>160	<b>14</b>	2	16
Particles >21µm		ASTM D7647	>40	<b>6</b>	1	5
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>20/17/14	<b>15/13/11</b>	14/12/9	18/15/11
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

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>0</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	10	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Phosphorus	ppm	ASTM D5185m		<b>437</b>	490	398
Zinc	ppm	ASTM D5185m		<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m		<b>466</b>	488	444
Acid Number (AN)	mg KOH/g	ASTM D8045	0.26	<b>0.25</b>	0.23	0.24
Visc @ 40°C	cSt	ASTM D445	45.36	<b>45.3</b>	45.7	45.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0887344 **Received** : 16 Jan 2024  
**Lab Number** : 06061922 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833304 **Diagnostician** : Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KF )

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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