

OIL ANALYSIS REPORT

Area **LEGACY [98810772]** Machine for **KR-GR-006003 - HYDRAULIC A/B (S/N OLD POWER HOUSE)**

Hydraulic System

PETRO CANADA PURITY FG HYDRAULIC AW 68 (30 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: 98810772)

Wear

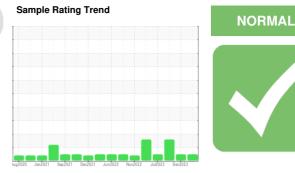
All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition

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



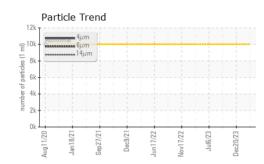
SAMPLE INFORI		method	limit/base	current	history1	history2
			mmubase			
Sample Number		Client Info		PCA0116658	PCA0114827	PCA0100854
Sample Date		Client Info		14 Mar 2024	20 Dec 2023	22 Sep 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0 Nat Observal	0
Oil Changed		Client Info		N/A	Not Changd	
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	0	<1
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	0	0
Lead	ppm	ASTM D5185m	>20	<1	0	0
Copper	ppm	ASTM D5185m	>20	1	1	1
Tin	ppm	ASTM D5185m	>20	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	2
Molvbdenum	maa	ASTM D5185m		0	0	0
•	mqq mqq	ASTM D5185m ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m		0 0	0	0 <1
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 3	0 0 0 0	0 <1 <1
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 3 401	0 0 0 377	0 <1 <1 371
Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 3	0 0 0 0	0 <1 <1
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 3 401 8 337	0 0 377 <1 383	0 <1 <1 371 10 367
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method		0 0 3 401 8 337 current	0 0 377 <1 383 history1	0 <1 <1 371 10 367 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	>15	0 0 3 401 8 337 current 13	0 0 377 <1 383 history1 13	0 <1 <1 371 10 367 history2 ▲ 15
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>15	0 0 3 401 8 337 current 13 0	0 0 377 <1 383 history1 13 1	0 <1 <1 371 10 367 history2 ▲ 15 0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	0 0 3 401 8 337 <u>current</u> 13 0 <1	0 0 377 <1 383 history1 13 1 2	0 <1 <1 371 10 367 history2 ▲ 15 0 0
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20 limit/base	0 0 3 401 8 337 current 13 0 <1 current	0 0 377 <1 383 history1 13 1 2 history1	0 <1 <1 371 10 367 history2 ▲ 15 0 0 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>15 >20 limit/base >10000	0 0 3 401 8 337 current 13 0 <1 current 1191	0 0 0 3777 <1 383 history1 13 1 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>15 >20 limit/base >10000 >2500	0 0 3 401 8 337 current 13 0 <1 current 1191 456	0 0 377 <1 383 history1 13 1 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >10000 >2500 >640	0 0 3 401 8 337 current 13 0 <1 current 1191 456 62	0 0 377 <1 383 history1 13 1 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >10000 >2500 >640 >160	0 0 3 401 8 337 <u>current</u> 13 0 <1 <u>current</u> 1191 456 62 20	0 0 377 <1 383 history1 13 1 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 bistory2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >10000 >2500 >640 >160 >40	0 0 3 401 8 337 current 13 0 <1 13 () <1 1191 1191 456 62 20 2	0 0 377 <1 383 history1 13 1 3 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >10000 >2500 >640 >160 >40 >40 >10	0 0 3 401 8 337 current 13 0 <1 current 1191 456 62 20 2 2 0	0 0 377 <1 383 history1 13 1 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 bistory2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >4µm Particles >14µm Particles >38µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647	>15 >20 Imit/base >10000 >2500 >640 >160 >40 >10 >10 >20/18/16	0 0 3 401 8 337 <u>current</u> 13 0 <1 13 0 <1 1191 456 62 20 2 20 2 20 2 0 17/16/13	0 0 0 3777 <1 383 history1 13 1 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 bistory2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647	>15 >20 limit/base >10000 >2500 >640 >160 >40 >40 >10	0 0 3 401 8 337 current 13 0 <1 current 1191 456 62 20 2 2 0	0 0 377 <1 383 history1 13 1 2 history1 	0 <1 <1 371 10 367 history2 ▲ 15 0 0 bistory2

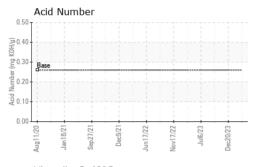
Report Id: KRAKIR [WUSCAR] 06133262 (Generated: 04/03/2024 15:37:59) Rev: 1

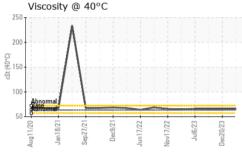
Submitted By: Wilberto Pacheco Garcia

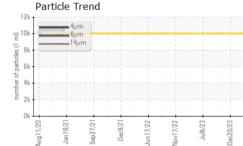


OIL ANALYSIS REPORT

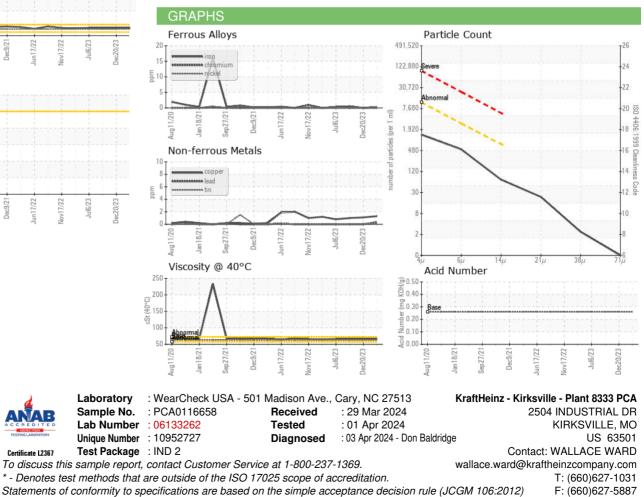








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	63.34	65.5	65.6	65.6
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color				•	a.	
Bottom						





Report Id: KRAKIR [WUSCAR] 06133262 (Generated: 04/03/2024 15:37:59) Rev: 1

Certificate L2367

Submitted By: Wilberto Pacheco Garcia