

## **OIL ANALYSIS REPORT**

Sample Number

hrs

hrs

Sample Date

Machine Age

Oil Changed

Sample Status

WEAR METALS

Oil Age

### HOTLINE/SCALPER SCALPER MAIN HYD RESV 1401-001-4010 Component

**Hydraulic System** 

PETRO CANADA HYDREX AW 68 (60 GAL)

#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

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

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



Sample Rating Trend

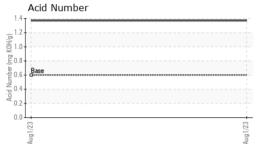
Iron	ppm	ASTM D5185m	>20	<1		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>20	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>20	<1		
Lead	ppm	ASTM D5185m	>20	0		
Copper	ppm	ASTM D5185m	>20	<1		
Tin	ppm	ASTM D5185m	>20	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0		
Barium	ppm	ASTM D5185m	0	<1		
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0	<1 0		
Molybdenum	ppm	ASTM D5185m	0	0		
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	0	0 <1		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 <1 7		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 50	0 <1 7 1		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 50 330	0 <1 7 1 355		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 50 330 430	0 <1 7 1 355 24	  	   
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 50 330 430 760	0 <1 7 1 355 24 1161	    	   
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	0 0 0 50 330 430 760 limit/base	0 <1 7 1 355 24 1161 current	    	    history2

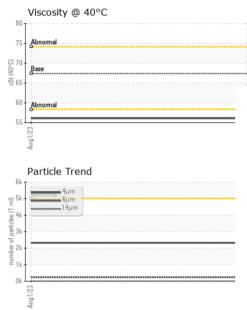
FLUID CLEANLINE	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	2322		
Particles >6µm		ASTM D7647	>1300	243		
Particles >14µm		ASTM D7647	>160	8		
Particles >21µm		ASTM D7647	>40	3		
Particles >38µm		ASTM D7647	>10	0		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/15/10		
FLUID DEGRADAT	ΓΙΟΝ	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.60	1.37		



# **OIL ANALYSIS REPORT**







	VISUAL		method	limit/base	current	history1	history	
	White Metal	scalar	*Visual	NONE	NONE			
	Yellow Metal	scalar	*Visual	NONE	NONE			
	Precipitate	scalar	*Visual	NONE	NONE			
	Silt	scalar	*Visual	NONE	NONE			
	Debris	scalar	*Visual	NONE	NONE			
-	Sand/Dirt	scalar	*Visual	NONE	NONE			
Aug1/23	Appearance	scalar	*Visual	NORML	NORML			
Aur	Odor	scalar	*Visual	NORML	NORML			
	Emulsified Water	scalar	*Visual	>0.05	NEG			
	Free Water	scalar	*Visual		NEG			
	FLUID PROPERT	IES	method	limit/base	current	history1	history	
	Visc @ 40°C	cSt	ASTM D445	67.4	56.1			
	SAMPLE IMAGES	5	method	limit/base	current	history1	history	
Aug 1/23	Color					no image	no image	
	Bottom					no image	no image	
	GRAPHS							
	Ferrous Alloys				Particle Count			
	10 iron			491,52	<sup>10</sup> T		I	
	o chromium			122,88	10-			
	e 6				Severe			
	2			30,72	20			
					0 Abnormal		-	
	Aug 1/23			Aug1/23. (per 1 ml)				
	Aug			January 1,92 (ber 1,92		•	•	
	Non-ferrous Metal	s		apite 48				
	<sup>10</sup> I			rofp				
	8 - copper			ESTIDE (1 ml) 845 15 15 15 15 15 15 15 15 15 15 15 15 15				
	E 6- tin				10-		-	
	- 4							
	2				ö+	1		
	1/23			1/23	2-			
	Aug1/23			Aug1/23	0			
	Viscosity @ 40°C					14μ 21μ	38µ 71	
	<sup>80</sup> T				Acid Number			
	75 Abnormal			(B/HO				
1	Ĵ 70 - <b>Base</b>				.0			
	© 70 - Base 중 65			Acid Number (mg KOH/g)	Base			
	60 - Abnormal			N				
	55							
	Aug1/23			Aug1/23	Aug1/23			
	Au			AL	Ац			
Laboratory Sample No. Lab Number Unique Number Test Package	: 10603377 Diagnostician : Angela Borella					CONSTELLIN 4805 SECOND STRE MUSCLE SHOALS, US 356 Contact: Joel Ev		
Lab Number Unique Number Test Package uss this sample report, o otes test methods that a	: 10603377 I : IND 2 contact Customer Servi rre outside of the ISO 12	Diagnost ice at 1-8 7025 sco	ed : 15 / iician : Ang 800-237-1369 ope of accrea	d : 15 Aug 2023 cian : Angela Borella 10-237-1369.			MUSCLE SHOAL US 3	