

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend

NORMAL

#### Machine DAVI DAVI PLATE ROLL (S/N 21640062) Component

**Hydraulic System** 

PETRO CANADA HYDREX AW 46 (--- GAL)

#### Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### 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.

				Mar2024		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0716447		
Sample Date		Client Info		25 Mar 2024		
Machine Age	1/50	Client Info		25 Mar 2024 7		
0	yrs	Client Info		1		
Oil Age	yrs	Client Info				
Oil Changed Sample Status		Client into		Changed NORMAL		
			1			
CONTAMINATION Water	N	method	limit/base	current	history1	history2
		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0		
Chromium	ppm	ASTM D5185(m)		0		
Nickel	ppm	ASTM D5185(m)	>20	0		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	0		
Lead	ppm	ASTM D5185(m)	>20	0		
Copper	ppm	ASTM D5185(m)	>20	0		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
/anadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	0		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum						
worybuenum	ppm	ASTM D5185(m)	0	0		
	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0		
Vanganese		. ,		-		
Manganese Magnesium	ppm	ASTM D5185(m)	0 0	0		
Manganese Magnesium Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0	0 <1		
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50	0 <1 54		
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330	0 <1 54 337		
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430	0 <1 54 337 435		  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430	0 <1 54 337 435 741		  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430 760	0 <1 54 337 435 741 <1	  	   
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430 760 Limit/base	0 <1 54 337 435 741 <1 current	  	     history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430 760 Limit/base	0 <1 54 337 435 741 <1 current 0	    history1 	    history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430 760 limit/base >15	0 <1 54 337 435 741 <1 current 0 0	    history1 	    history2 
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430 760 //////////////////////////////////	0 <1 54 337 435 741 <1 current 0 0 <1	    history1  	    history2  
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	0 0 50 330 430 760 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000	0 <1 54 337 435 741 <1 current 0 0 <1 current 1953	    history1   history1 	    history2   history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647	0 0 50 330 430 760 <b>imit/base</b> >15 >20 <b>imit/base</b> >20 <b>imit/base</b>	0 <1 54 337 435 741 <1 current 0 0 0 <1 current 1953 632	    history1   history1	<ul> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> </ul>
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647	0 0 50 330 430 760 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000 >1300 >160	0 <1 54 337 435 741 <1 <1 0 0 0 <1 0 <1 1953 632 45	    history1   history1  history1	<ul> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li></li> </ul>
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 50 330 430 760 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000 >1300 >160 >40	0 <1 54 337 435 741 <1 current 0 0 0 <1 current 1953 632 45 10	    history1   history1 	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li></li></ul>
Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 50 330 430 760 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000 >1300 >160 >40 >10	0 <1 54 337 435 741 <1 current 0 0 <1 current 1953 632 45 10 2	    history1   history1   	<ul> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> <li></li> <li></li></ul>
Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 0 50 330 430 760 <b>imit/base</b> >15 >20 <b>imit/base</b> >5000 >1300 >160 >40 >10	0 <1 54 337 435 741 <1 current 0 0 0 <1 current 1953 632 45 10	    history1  history1  history1 	<ul> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li></li></ul>



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Particle Trend	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
4µm 6µm 14µm	Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	0.42		
	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
Mar25/24 Mar25/24	Silt	scalar	Visual*	NONE	NONE		
Mari Mari	Debris	scalar	Visual*	NONE	NONE		
Acid Number	Sand/Dirt	scalar	Visual*	NONE	VLITE		
Base	Appearance Odor	scalar	Visual* Visual*	NORML NORML	NORML		
	Emulsified Water	scalar scalar	Visual*	>0.05	NEG		
	Free Water	scalar	Visual*	20.00	NEG		
	FLUID PROPER	TIFS	method	limit/base	current	history1	history
	Visc @ 40°C	cSt	ASTM D7279(m)	46.4	45.8		
- + +	SAMPLE IMAGE		method	limit/base	current	history1	history
Mar25/24 Mar25/24							- matory
Viscosity @ 40°C	Calar					no /	
· -	Color					no image	no image
Abnormal							
Base							
	Bottom					no image	no image
Abnormal							
Automa	GRAPHS						
Mar25/24	Ferrous Alloys				Particle Count		
N ai	10 iron 1			491,520			
Particle Trend	툴. 5 - nickel			122,880	Severe		
4µm				30,720			
	0			호 ( 7,680	Abnormal		
	Mar25/24			Mar25/24 1.900 1000'	··		
	≥ Non-ferrous Meta	s		≥ <u>sa</u> ;t± 480.	1.		
	<sup>10</sup> T			jo 120-	\`.		
	copper lead			qum			
Mar25/24 Ma-25-24	Ē. 5			= 30.			
M ar	0			8-			
	Mar25/24			Mar25/24	-		-
				W 0.	μ 6μ 1	4μ 21μ	38µ 71
	Viscosity @ 40°C				Acid Number		
	Abnormal			() HOX BW 0.60	Base		
	50 Base Base 45 45 Abnormal			E 0.40			
	<sup>성</sup> 40 - <mark>Abnormal</mark>			- mn 0.20-			
	35						
	Mar25/24			Mar25/24	Mar25/24		
	M			W	W		
	: WearCheck - C8-117				5H9		G-CIVES L
Sample No.	: WC0716447	Recei Teste		8 Mar 2024 Apr 2024		42626 GRE	Y ROAD # FOREST,
	. 02023222				na Davia	WOUNT	CA NOG 2
ISO 17025:2017 Lab Number	r : 5750341	Diagr	losed :01	Apr 2024 - VVe	25 Davis		
ISO 17025:2017 Lab Number Accredited Unique Number Laboratory Test Package	e : IND 2	Diagr		Apr 2024 - We	es Davis		enda Flaxn
ISO 17025:2017 Lab Number Accredited Unique Number	e : IND 2 t, contact Customer Serv	ice at 1-8	00-268-213	1.		bflaxman@	enda Flaxn