

#### Machine Id OR357 Component Hydraulic System Fluid PETRO CANADA HYDREX MV 32 (--- GAL)

## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Resample in 30-45 days to monitor this situation.

### **WEAR**

All component wear rates are normal.

# CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

# FLUID CONDITION

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113421		
Sample Date		Client Info		01 May 2024		
Machine Age	hrs	Client Info		8306		
Oil Age	hrs	Client Info		8306		
Filter Age	hrs	Client Info		8306		
Oil Changed		Client Info		Not Changd		
Filter Changed		Client Info		Changed		
Sample Status				SEVERE		
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Iron	ppm	ASTM D5185(m)	>20	19		
Chromium	ppm	ASTM D5185(m)	>10	<1		
Nickel	ppm	ASTM D5185(m)	>10	0		
Titanium	ppm	ASTM D5185(m)		<1		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	1		
Lead	ppm	ASTM D5185(m)	>10	0		
Copper	ppm	ASTM D5185(m)	>75	1		
Tin	ppm	ASTM D5185(m)	>10	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Ciliaan			. 00	4		
Silicon	ppm	ASTM D5185(m) ASTM D5185(m)	>20	1		
Potassium Water	ppm	WC Method	>20 >0.1	<1 NEG		
				NEG ▲ 104205		
Particles >4µm		ASTM D7647 ASTM D7647	>5000 >1300	104205 20104		
Particles >6µm Particles >14µm		ASTM D7647 ASTM D7647	>160	142		
Particles >21µm		ASTM D7647 ASTM D7647	>100	25		
Particles >38µm		ASTM D7647 ASTM D7647	>10	1		
Particles >71µm		ASTM D7647 ASTM D7647	>3	1		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	A 24/22/14		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water			>0.1	NEG		
Sodium	ppm	ASTM D5185(m)		<1		
Boron	ppm	ASTM D5185(m)	0	<1		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	0	0		
Manganese	ppm	ASTM D5185(m)	1	0		
Magnesium	ppm	ASTM D5185(m)	0	5		
Calcium	ppm	ASTM D5185(m)	50	88		
Phosphorus	ppm	ASTM D5185(m)	330	328		
Zinc	ppm	ASTM D5185(m)	430	387		
Sulfur	ppm	ASTM D5185(m)	760	852		
Visc @ 40°C	cSt	ASTM D7279(m)	31.9	43.1		

WEAR

CONTAMINATION

**FLUID CONDITION** 

NORMAL

**SEVERE** 

**ABNORMAL** 



