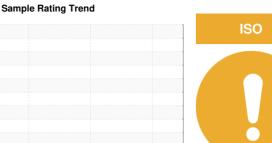


# **OIL ANALYSIS REPORT**





# **G.LOPES CONSTRUCTION INC./Off-Road BH42** Component **Hydraulic System**

PETRO CANADA DURA

### **DIAGNOSIS**

#### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

#### Contamination

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

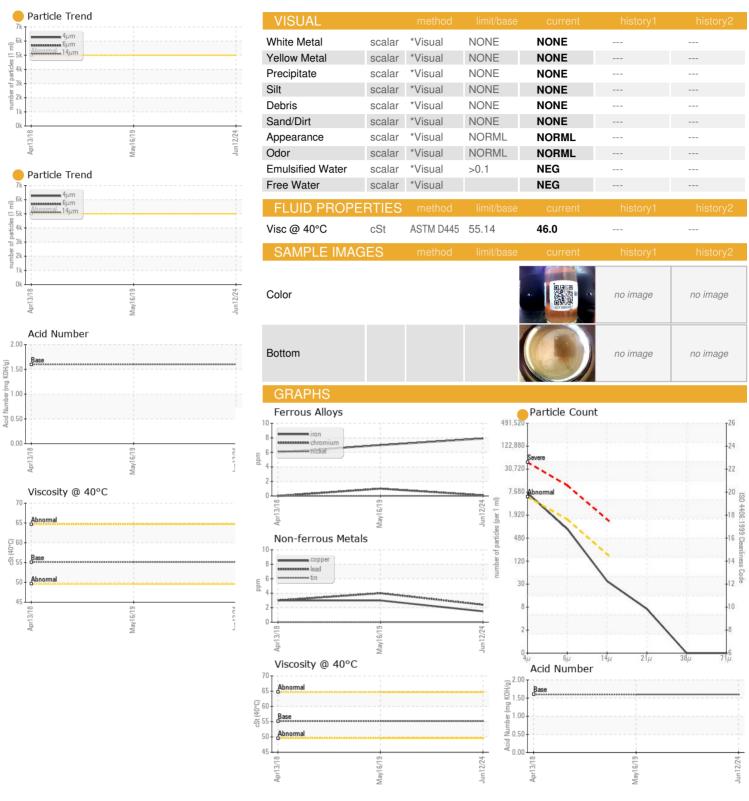
## **Fluid Condition**

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

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SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109698	PCA43455056	PCA13317029
Sample Date		Client Info		12 Jun 2024	16 May 2019	13 Apr 2018
Machine Age	hrs	Client Info		3887	2779	2167
Oil Age	hrs	Client Info		3887		
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL
CONTAMINATI	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	8	7	6
Chromium	ppm	ASTM D5185m	>10	<1	1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		<1		
Aluminum	ppm	ASTM D5185m	>10	1	2	0
Lead	ppm	ASTM D5185m	>10	2	4	3
Copper	ppm	ASTM D5185m	>75	2	3	3
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
						,
Boron	ppm	ASTM D5185m	110	81	14	6
	ppm		110			
Boron	• •	ASTM D5185m	110	81	14	6
Boron Barium	ppm	ASTM D5185m ASTM D5185m	110 0.0 0.0	81 0	14 0	6 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	110 0.0 0.0	81 0 4	14 0 1	6 0 0
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	110 0.0 0.0 1	81 0 4 0	14 0 1	6 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	110 0.0 0.0 1 13	81 0 4 0 53	14 0 1  15	6 0 0  7
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	110 0.0 0.0 1 13 3610	81 0 4 0 53 2471	14 0 1  15 648	6 0 0  7 364
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455	81 0 4 0 53 2471 952	14 0 1  15 648 751	6 0 0  7 364 684
Boron Barium 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 ASTM D5185m ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455	81 0 4 0 53 2471 952 1276	14 0 1  15 648 751 841	6 0 0  7 364 684 878
Boron Barium 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 ASTM D5185m ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455 2641	81 0 4 0 53 2471 952 1276 4095	14 0 1  15 648 751 841	6 0 0  7 364 684 878
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base	81 0 4 0 53 2471 952 1276 4095 current	14 0 1  15 648 751 841 	6 0 0  7 364 684 878 
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base	81 0 4 0 53 2471 952 1276 4095 current	14 0 1  15 648 751 841  history1	6 0 0  7 364 684 878  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1	14 0 1  15 648 751 841  history1 4	6 0 0  7 364 684 878  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base >20	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1	14 0 1  15 648 751 841  history1 4 3	6 0 0  7 364 684 878  history2 2 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base >20 limit/base >5000	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1	14 0 1  15 648 751 841  history1 4 3 1	6 0 0  7 364 684 878  history2 2 1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base >20 limit/base >5000	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1	14 0 1  15 648 751 841  history1 4 3 1	6 0 0  7 364 684 878  history2 2 1 0 history2
Boron Barium Molybdenum 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 ppm	ASTM D5185m  method ASTM D5185m	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base >20	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1 current 6328 736	14 0 1 15 648 751 841 history1 4 3 1 history1	6 0 0 7 364 684 878 history2 2 1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base >20	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1 current 6328 736 32	14 0 1 15 648 751 841 history1 4 3 1 history1	6 0 0 7 364 684 878 history2 2 1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1 current 6328 736 32 6	14 0 1 15 648 751 841 history1 4 3 1 history1	6 0 0 7 364 684 878 history2 2 1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	110 0.0 0.0 1 13 3610 1192 1455 2641 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	81 0 4 0 53 2471 952 1276 4095 current 8 5 <1 current 6328 736 32 6 0	14 0 1 15 648 751 841 history1 4 3 1	6 0 0 7 364 684 878 history2 2 1 0 history2



## **OIL ANALYSIS REPORT**







Laboratory Sample No.

: PCA0109698 Lab Number : 06210070

Unique Number : 11082934 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 14 Jun 2024 **Tested** : 17 Jun 2024

Diagnosed : 17 Jun 2024 - Angela Borella

Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

 $^st$  - 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)

**G LOPES CONSTRUCTION** 

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