

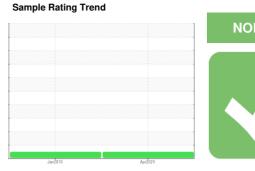
GREASE ANALYSIS

[450323075]

#5, 12 INCH FLARE SWIVEL

Grease

PETRO CANADA GREASE OG-1 (--- GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Grease Condition

The condition of the grease is acceptable for the time in service.

Contaminants

There is no indication of any contamination in the grease.

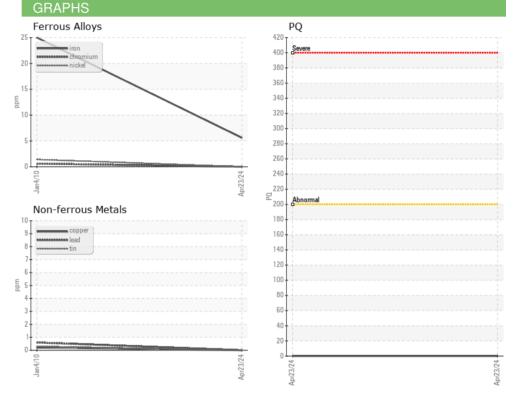
			Jan2010	Aprž024		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC	PC	
Sample Date		Client Info		23 Apr 2024	04 Jan 2010	
Machine Age	days	Client Info		0	0	
Grease Age	days	Client Info		0	0	
Grease Serviced	, .	Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
PQ		ASTM D8184*	>200	0		
Iron	nnm	ASTM D5185(m)	>250	6	25	
Chromium	ppm	,	>250	-	<1 <1	
	ppm	ASTM D5185(m) ASTM D5185(m)		0	<1	
Nickel	ppm	(/	>5			
Cadmium	ppm	ASTM D5185(m)		0		
Titanium	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)	0.5	0	0	
Lead	ppm	ASTM D5185(m)	>25	0	<1	
Copper	ppm	ASTM D5185(m)	>75	0	<1	
Tin	ppm	ASTM D5185(m)	>5	0	<1	
Silver	ppm	ASTM D5185(m)	>5	0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 178	history1	history2
	ppm		limit/base			,
Boron		ASTM D5185(m)	limit/base	178	0	
Boron Magnesium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	178 6	0 <1	
Boron Magnesium Manganese	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	178 6 0	0 <1 <1	
Boron Magnesium Manganese Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	178 6 0	0 <1 <1 2	
Boron Magnesium Manganese Molybdenum Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	178 6 0 0 3	0 <1 <1 2 17	
Boron Magnesium Manganese Molybdenum Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	178 6 0 0 3 11	0 <1 <1 <1 7	
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony	ppm ppm ppm ppm ppm	ASTM D5185(m)		178 6 0 0 3 11	0 <1 <1 2 17 7	
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		178 6 0 0 3 11 0	0 <1 <1 <2 17 7 history1	 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		178 6 0 0 3 11 0 current	0 <1 <1 <2 17 7 history1 <1	 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		178 6 0 0 3 11 0 current 2 <1	0 <1 <1 <2 17 <7 history1 <1	 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		178 6 0 0 3 11 0 current 2 <1 4127	0 <1 <1 <1 7 ···· history1 <1 15	history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		178 6 0 0 3 11 0 current 2 <1 4127 5	0 <1 <1 <1 7	history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		178 6 0 0 3 11 0 current 2 <1 4127 5 10	0 <1 <1 <1 7	history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium Sodium Lithium Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	178 6 0 0 3 11 0 current 2 <1 4127 5 10 765	0 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINAN	ppm	ASTM D5185(m)	limit/base	178 6 0 0 3 11 0 current 2 <1 4127 5 10 765 current	0 <1 <1 <1	history2 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINAN Silicon	ppm	ASTM D5185(m)	limit/base	178 6 0 0 3 111 0 current 2 <1 4127 5 10 765 current	0 <1 <1 <1 <2 17	history2 history2 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINAN Silicon Potassium	ppm	ASTM D5185(m)	limit/base limit/base >150	178 6 0 0 3 11 0 current 2 <1 4127 5 10 765 current 70 2	0 <1 <1 <1 <2 17	history2 history2
Boron Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/S Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINAN Silicon Potassium GREASE CON	ppm	ASTM D5185(m) METHOD METHOD ASTM D5185(m) METHOD METHOD ASTM D5185(m) METHOD METHOD	limit/base limit/base >150 limit/base	178 6 0 0 3 111 0 current 2 <1 4127 5 10 765 current 70 2 current	0 <1 <1 <1 <2 17 <7 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	history2 history2 history2 history2



GREASE ANALYSIS











CALA ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. : PC Lab Number : 02634830 Unique Number : 5775983

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Received **Tested** Diagnosed

: 10 May 2024 : 14 May 2024

: 15 May 2024 - Bill Quesnel

Test Package : GRS 1 (Additional Tests: BottomAnalysis) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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