

# **GREASE ANALYSIS**

Sample Rating Trend



Machine Id

# Turret Swivel #1 - 16 (S/N Sample Tag: NC-21604)

Grease

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

### **DIAGNOSIS**

### Recommendation

We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition.

All component wear rates are normal.

### **Grease Condition**

The grease is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

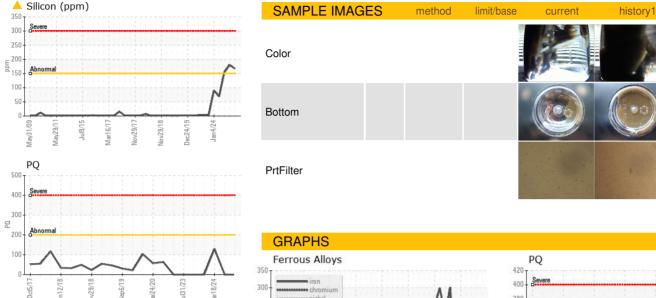
### Contaminants

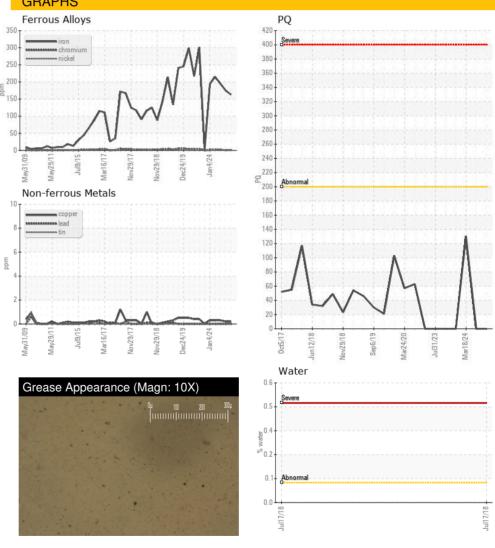
There is a moderate concentration of dirt present in the grease.

		nanco marco				
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC	PC0078284	PC
Sample Date		Client Info		16 Apr 2024	01 Apr 2024	18 Mar 2024
Machine Age	days	Client Info		0	0	0
Grease Age	days	Client Info		0	0	0
Grease Serviced		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	ABNORMAL
CONTAMINATION	ON	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS	3	method	limit/base	current	history1	history2
PQ		ASTM D8184*	>200	0	0	130
Iron	ppm	ASTM D5185(m)	>250	163	175	195
Chromium	ppm	ASTM D5185(m)	>10	1	<1	2
Nickel	ppm	ASTM D5185(m)	>5	<1	1	2
Cadmium	ppm	ASTM D5185(m)		0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Lead	ppm	ASTM D5185(m)	>25	0	0	0
Copper	ppm	ASTM D5185(m)	>75	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
ADDITIVES		method	limit/base	a	la la La mud	history2
		method	IIIIII/Dase	current	history1	HISTOLYZ
Boron	ppm	ASTM D5185(m)	IIIIII/Dase	170	177	179
Boron Magnesium	ppm ppm		IIIIIV Dase			
		ASTM D5185(m)	IIIIIVDase	170	177	179
Magnesium	ppm	ASTM D5185(m) ASTM D5185(m)	IIIIIVDase	170 8	177 7	179 8
Magnesium Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	iii iii iii base	170 8 1	177 7 1	179 8 <1
Magnesium Manganese Molybdenum	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	iii iii Voase	170 8 1 0	177 7 1	179 8 <1
Magnesium Manganese Molybdenum Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	IIIIIVVASE	170 8 1 0 5	177 7 1 0 5	179 8 <1 0
Magnesium Manganese Molybdenum Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	170 8 1 0 5 19	177 7 1 0 5	179 8 <1 0 7
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		170 8 1 0 5 19	177 7 1 0 5 18	179 8 <1 0 7 17
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		170 8 1 0 5 19 0	177 7 1 0 5 18 0 history1	179 8 <1 0 7 17 0
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		170 8 1 0 5 19 0 current	177 7 1 0 5 18 0 history1	179 8 <1 0 7 17 0 history2
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  METHOD  ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		170 8 1 0 5 19 0 current 2 <1	177 7 1 0 5 18 0 history1 2 <1	179  8 <1 0 7 17 0 history2 3 <1
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		170 8 1 0 5 19 0 current 2 <1 4111	177 7 1 0 5 18 0 history1 2 <1 4394	179  8 <1 0 7 17 0 history2 3 <1 4269
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		170 8 1 0 5 19 0 current 2 <1 4111 14	177 7 1 0 5 18 0 history1 2 <1 4394 15	179  8 <1 0 7 17 0 history2 3 <1 4269 17
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		170 8 1 0 5 19 0 current 2 <1 4111 14 19	177 7 1 0 5 18 0 history1 2 <1 4394 15 21	179  8 <1 0 7 17 0 history2 3 <1 4269 17 21
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium Lithium Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	170 8 1 0 5 19 0 current 2 <1 4111 14 19 807	177 7 1 0 5 18 0 history1 2 <1 4394 15 21 823	179  8 <1 0 7 17 0 history2 3 <1 4269 17 21 821
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINAN	ppm	ASTM D5185(m)	limit/base	170 8 1 0 5 19 0 current 2 <1 4111 14 19 807 current	177 7 1 0 5 18 0 history1 2 <1 4394 15 21 823 history1	179 8 <1 0 7 17 0 history2 3 <1 4269 17 21 821 history2
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANT Silicon	ppm	ASTM D5185(m)	limit/base	170 8 1 0 5 19 0 current 2 <1 4111 14 19 807 current	177 7 1 0 5 18 0 history1 2 <1 4394 15 21 823 history1 ▲ 180	179  8 <1 0 7 17 0 history2 3 <1 4269 17 21 821 history2  155
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANT Silicon Potassium	ppm	ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m)  ASTM D5185(m)  METHOD	limit/base limit/base >150	170 8 1 0 5 19 0 current 2 <1 4111 14 19 807 current  167 2 current	177 7 1 0 5 18 0 history1 2 <1 4394 15 21 823 history1  ▲ 180 2	179  8  <1 0 7 17 0  history2  3  <1 4269 17 21 821  history2  ▲ 155 4  history2
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANT Silicon Potassium GREASE CONE Grease Color	ppm	ASTM D5185(m)  method ASTM D5185(m)  method Visual*	limit/base limit/base >150 limit/base Tan	170 8 1 0 5 19 0 current 2 <1 4111 14 19 807 current  167 2 current Brown	177 7 1 0 5 18 0 history1 2 <1 4394 15 21 823 history1 ▲ 180 2 history1 Brown	179  8  <1 0 7 17 0  history2  3  <1 4269 17 21 821  history2  ▲ 155 4  history2  Brown
Magnesium Manganese Molybdenum Phosphorus Zinc Antimony THICKENER/SO Aluminum Barium Calcium Sodium Lithium Sulfur CONTAMINANT Silicon Potassium GREASE CONE	ppm	ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m)  METHOD  METHOD  ASTM D5185(m)  ASTM D5185(m)  METHOD	limit/base limit/base >150 limit/base	170 8 1 0 5 19 0 current 2 <1 4111 14 19 807 current  167 2 current	177 7 1 0 5 18 0 history1 2 <1 4394 15 21 823 history1 ▲ 180 2 history1	179  8  <1 0 7 17 0  history2  3  <1 4269 17 21 821  history2  ▲ 155 4  history2



## **GREASE ANALYSIS**







CALA ISO 17025:2017 Accredited Laboratory

Report Id: TERHAM [WCAMIS] 02634831 (Generated: 05/15/2024 17:09:13) Rev: 1

Laboratory

Sample No. Lab Number : 02634831 Unique Number : 5775984

: PC

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

: 10 May 2024 : 14 May 2024

Diagnosed : 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.

**Suncor - Terra Nova Projects** 

Scotia Centre, 235 Water Strret St. John's, NL CA A1C 1B6

Contact: Josh Hynes joshynes@suncor.com T: (709)778-3575

F: (709)724-2835

Validity of results and interpretation are based on the sample and information as supplied.

history2