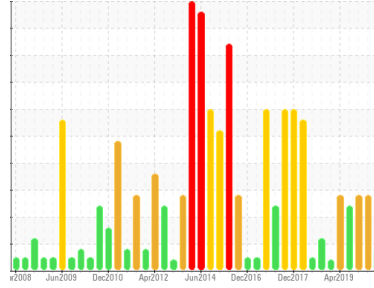




Area  
**Gas Compression [300231619]**  
Machine Id  
**Methanol Wellhead Injection Pump B - Gearbox (S/N Sample Tag PD-42010B-S1)**  
Component  
**Gearbox**  
Fluid  
**GEAR OIL ISO 320 (120 LTR)**



**DIAGNOSIS**

**Recommendation**  
We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

**Wear**  
All component wear rates are normal.

**Contamination**  
There is a light 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 suitable for further service.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PC</b>	PC	PC
Sample Date	Client Info	<b>08 Jan 2024</b>	20 Dec 2019	08 Oct 2019
Machine Age	hrs	<b>0</b>	0	0
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ATTENTION</b>	SEVERE	SEVERE

**CONTAMINATION**

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG

**WEAR METALS**

method	limit/base	current	history1	history2
PQ	ASTM D8184*	<b>0</b>	14	19
Iron	ppm ASTM D5185(m) >150	<b>5</b>	4	5
Chromium	ppm ASTM D5185(m) >10	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m) >10	<b>&lt;1</b>	0	<1
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185(m) >5	<b>&lt;1</b>	0	0
Lead	ppm ASTM D5185(m) >65	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185(m) >80	<b>11</b>	6	6
Tin	ppm ASTM D5185(m) >8	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185(m) >5	<b>0</b>	<1	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

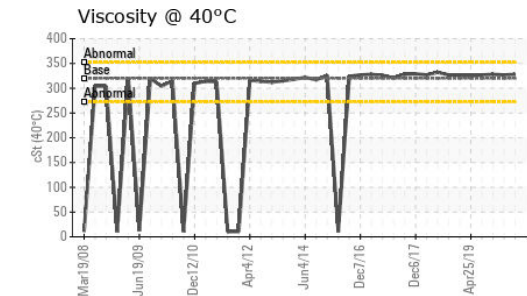
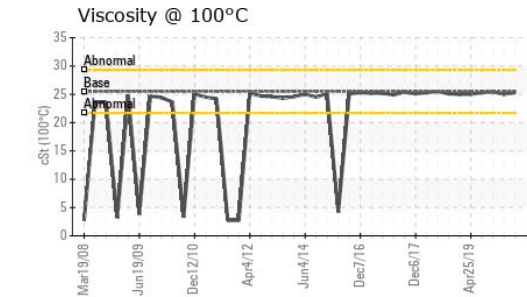
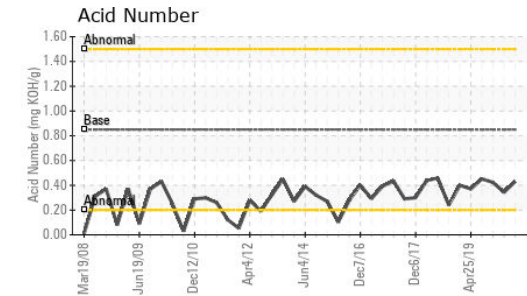
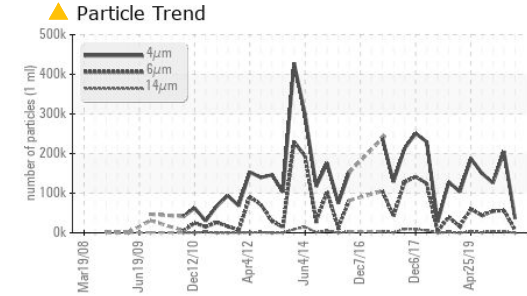
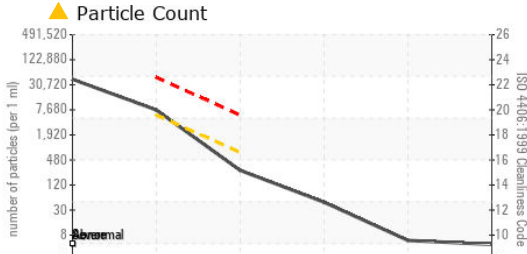
**ADDITIVES**

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 50	<b>63</b>	64	70
Barium	ppm ASTM D5185(m) 15	<b>0</b>	<1	<1
Molybdenum	ppm ASTM D5185(m) 15	<b>0</b>	0	0
Manganese	ppm ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm ASTM D5185(m) 50	<b>&lt;1</b>	<1	<1
Calcium	ppm ASTM D5185(m) 50	<b>2</b>	<1	<1
Phosphorus	ppm ASTM D5185(m) 350	<b>277</b>	250	263
Zinc	ppm ASTM D5185(m) 100	<b>7</b>	4	4
Sulfur	ppm ASTM D5185(m) 12500	<b>14585</b>	15104	15013
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

**CONTAMINANTS**

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	<b>1</b>	4	5
Sodium	ppm ASTM D5185(m)	<b>&lt;1</b>	0	0
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

# OIL ANALYSIS REPORT



FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647			<b>36177</b>	205003	125861
Particles >6µm	ASTM D7647	>5000		<b>6636</b>	56011	54917
Particles >14µm	ASTM D7647	>640		<b>238</b>	2917	3442
Particles >21µm	ASTM D7647	>160		<b>41</b>	657	775
Particles >38µm	ASTM D7647	>40		<b>5</b>	4	4
Particles >71µm	ASTM D7647	>10		<b>4</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/19/16		<b>22/20/15</b>	25/23/19	24/23/19

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	<b>0.43</b>	0.344	0.423

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	<b>328</b>	327	328
Visc @ 100°C	cSt	ASTM D7279(m)	25.5	<b>25.3</b>	25.0	25.4
Viscosity Index (VI)	Scale	ASTM D2270*	103	<b>99</b>	98	100

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC  
**Lab Number** : **02611246**  
**Unique Number** : 5720341  
**Test Package** : MAR 2 ( Additional Tests: KV100, PQ, PrtCount, TAN Man, VI )  
**Received** : 25 Jan 2024  
**Diagnosed** : 26 Jan 2024  
**Diagnostician** : Kevin Marson

**Suncor - Terra Nova Projects**  
 Scotia Centre, 235 Water Street  
 St. John's, NL  
 CA A1C 1B6  
 Contact: Josh Hynes  
 joshhynes@suncor.com  
 T: (709)778-3575  
 F: (709)724-2835

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.