

## **OIL ANALYSIS REPORT**

#### Area [1846303] Machine Id UNIT3 GEN THRUST BEARING Component

Thrust Bearing

PETRO CANADA TURBOFLO XL46 (5556 LTR)

#### DIAGNOSIS

Fluid

#### Recommendation

We recommend that you perform vacuum distillation and/or air drying to attempt to remove any residual water and/or entrained gases from this oil that may be contributing to abnormal foaming and/or poor water separability. We recommend an early resample to monitor this condition.

#### Wear

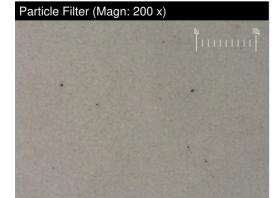
All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

### Contaminants

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

#### Oil Condition

Foaming Tendency (ASTM D892) results are abnormal indicating a tendency for oil foaming. Rust Prevention test (ASTM D665) indicates the oil retains good anti-corrosion properties. The AN level is acceptable for this fluid.

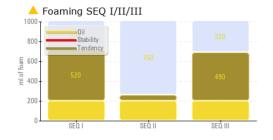


Sample Rating Trend OFF SPEC

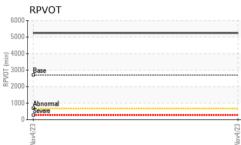
Sample Number       Client Info       VC0412131           Sample Date       I       Client Info       0           Machine Age       hrs       Client Info       0           Oil Age       hrs       Client Info       0           Oil Changed       Ice       Client Info       N/A           Sample Status       Ice       Client Info       N/A           WEAR METALS       Client Info       N/A            PQ       ASTM D5185(m)       >20       0            Iron       ppm       ASTM D5185(m)       >20       0            Nickel       ppm       ASTM D5185(m)       >20       0            Nickel       ppm       ASTM D5185(m)       >20       0            Auminum       ppm       ASTM D5185(m)       >20       0            Auminum       ppm       ASTM D5185(m)       >40       -1 <td< th=""><th>SAMPLE INFORM</th><th>IATION</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></td<>	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         I         BRNORINAL             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D5185(m)         >85         <1	Sample Number		Client Info		WC0412131		
Machine Age       hrs       Client Info       0           Oil Changed       Client Info       N/A           Sample Status       Image       Machine Age           WEAR METALS       method       Imit/base       Current       history1          WEAR METALS       method       Imit/base       Current       history1          VBAR METALS       method       Imit/base       Current       history1          PQ       ASTM D5185(m)       >20       0           Iron       ppm       ASTM D5185(m)       >20       0           Nickel       ppm       ASTM D5185(m)       >20       0           Silver       ppm       ASTM D5185(m)       >40       <11	Sample Date		Client Info		04 Nov 2023		
Oil Changed         Client Info         N/A             Sample Status         Imathod         Imit/base         current         history1         history2           PQ         ASTM D6184/         0             Iron         ppm         ASTM D6185(m)         >855         <10             Nickel         ppm         ASTM D6185(m)         >20         0             Nickel         ppm         ASTM D6185(m)         >20         0             Nickel         ppm         ASTM D5185(m)         >0         0             Silver         ppm         ASTM D5185(m)         >40         <1             Aluminum         ppm         ASTM D5185(m)         >40         <1             Copper         ppm         ASTM D5185(m)         >40         <1             Antimony         ppm         ASTM D5185(m)         >40         <1             Antimony         ppm         ASTM D5185(m)         >40         <1	Machine Age	hrs	Client Info		0		
Sample Status         Image         ABNORMAL             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM DB184/         0              Iron         ppm         ASTM DB185(m)         >20         0             Nickel         ppm         ASTM DB185(m)         >20         0             Nickel         ppm         ASTM DB185(m)         >20         0             Aluminum         ppm         ASTM DB185(m)         >20         0             Aluminum         ppm         ASTM DB185(m)         >40         <1	Oil Age	hrs	Client Info		0		
WEAR METALSmethodlimit/basecurrenthistory1history2PQASTM D6184//0IronppmASTM D6185///>85<1	Oil Changed		Client Info		N/A		
PQ         ASTM D8184'         0             Iron         ppm         ASTM D5165(m)         >20         0             Nickel         ppm         ASTM D5165(m)         >20         0             Nickel         ppm         ASTM D5165(m)         >20         0             Nickel         ppm         ASTM D5165(m)         >0              Silver         ppm         ASTM D5165(m)         >40         <1	Sample Status				ABNORMAL		
Iron         ppm         ASTM D5185(m)         >85         <1	WEAR METALS		method	limit/base	current	history1	history2
Chromium         ppm         ASTM D5185(m)         >20         0             Nickel         ppm         ASTM D5185(m)         >20         0             Titanium         ppm         ASTM D5185(m)         >20         0             Silver         ppm         ASTM D5185(m)         <0	PQ		ASTM D8184*		0		
Nickel         ppm         ASTM D5186(m)         >20         0             Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         <4	Iron	ppm	ASTM D5185(m)	>85	<1		
Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         >40         <1	Chromium	ppm	ASTM D5185(m)	>20	0		
Silver         ppm         ASTM D5/85(m)         <1             Aluminum         ppm         ASTM D5/85(m)         >40         <1	Nickel	ppm	ASTM D5185(m)	>20	0		
Aluminum         ppm         ASTM D5185(m)         >40         <1             Lead         ppm         ASTM D5185(m)         >60         0             Copper         ppm         ASTM D5185(m)         >7         <1	Titanium	ppm	ASTM D5185(m)		0		
Lead         ppm         ASTM D5185(m)         >60         0             Copper         ppm         ASTM D5185(m)         >7         <1	Silver	ppm	ASTM D5185(m)		<1		
Copper         ppm         ASTM D5185(m)         >7         <1             Tin         ppm         ASTM D5185(m)         >40         <1	Aluminum	ppm	ASTM D5185(m)	>40	<1		
Tin         ppm         ASTM D5185(m)         >40         <1             Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0              Molybdenum         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m)         0              Vagnesium         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m)         0              Sulfur         ppm         ASTM D5185(m)         20         1 </td <td>Lead</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>&gt;60</td> <td>0</td> <td></td> <td></td>	Lead	ppm	ASTM D5185(m)	>60	0		
Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Magnese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Vibur         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         <	Copper	ppm	ASTM D5185(m)	>7	<1		
Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Magnesse         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         20         1             Sulfur         ppm	Tin	ppm	ASTM D5185(m)	>40	<1		
BerylliumppmASTM D5185(m)0CadmiumppmASTM D5185(m)0ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185(m)0BariumppmASTM D5185(m)0BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MaganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0CalciumppmASTM D5185(m)0PhosphorusppmASTM D5185(m)4SulfurppmASTM D5185(m)6777SulfurppmASTM D5185(m)>201SodiumppmASTM D5185(m)>201SodiumppmASTM D5185(m)>200INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%ASTM D7844*0NitrationAbs/cmASTM D7624*1.9	Antimony	ppm	ASTM D5185(m)		0		
CadmiumppmASTM D5185(m)0ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185(m)0BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0CalciumppmASTM D5185(m)0PhosphorusppmASTM D5185(m)4SulfurppmASTM D5185(m)6777SulfurppmASTM D5185(m)6777LithiumppmASTM D5185(m)>201SodiumppmASTM D5185(m)>201PotassiumppmASTM D5185(m)>200INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%ASTM D7844*0NitrationAbs/cmASTM D7624*1.9	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Barium         ppm         ASTM D5185(m)         0             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         4             Zinc         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         677              Sulfur         ppm         ASTM D5185(m)         >20         1             Solium         ppm	Beryllium	ppm	ASTM D5185(m)		-		
Boron         ppm         ASTM D5185(m)         0             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         0             Phosphorus         ppm         ASTM D5185(m)         0             Zinc         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         1             Sulfur         ppm         ASTM D5185(m)         >20         1             Sodium         ppm         ASTM D5185(m)         >20         0             Potassium	Cadmium	ppm	ASTM D5185(m)		0		
Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         4             Phosphorus         ppm         ASTM D5185(m)         677             Sulfur         ppm         ASTM D5185(m)         677             Lithium         ppm         ASTM D5185(m) <current< td="">         history1         history2           Silicon         ppm         ASTM D5185(m)         &gt;20         1             Potassium         ppm         ASTM D5185(m)         &gt;20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %<th></th><th></th><th></th><th></th><th></th><th></th><th></th></current<>							
Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m)         0              Calcium         ppm         ASTM D5185(m)         Image         <1	ADDITIVES		method	limit/base	current	history1	history2
Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         4             Phosphorus         ppm         ASTM D5185(m)         4             Zinc         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0              Sulfur         ppm         ASTM D5185(m)         >20         1             Sodium         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D5385(m)         >20         0             ppm Water         ppm         ASTM D6304*         12		ppm		limit/base			
Magnesium         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         4             Phosphorus         ppm         ASTM D5185(m)         4             Zinc         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Lithium         ppm         ASTM D5185(m)         0         677             Sulfur         ppm         ASTM D5185(m)          current         history1         history2           CONTAMINANTS         method         limit/base         current         history1            Solicon         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D5185(m)         >20         0             INFRA-RED         method         limit/base         current         hist	Boron		ASTM D5185(m)	limit/base	0		
Calcium         ppm         ASTM D5185(m)         <1             Phosphorus         ppm         ASTM D5185(m)         4             Zinc         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Lithium         ppm         ASTM D5185(m)         677              Lithium         ppm         ASTM D5185(m)          current         history1         history2           Silicon         ppm         ASTM D5185(m)         >20         1             Sodium         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D5185(m)         >20         0             ppm Water         ppm         ASTM D5185(m)         >20         0             INFRA-RED         method         limit/base	Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	0 0		
Phosphorus         ppm         ASTM D5185(m)         4             Zinc         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         0         2             Lithium         ppm         ASTM D5185(m)         -         6777             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >20         1             Sodium         ppm         ASTM D5185(m)         >20         1             Potassium         ppm         ASTM D5185(m)         >20         1             ppm Water         ppm         ASTM D5185(m)         >20         0             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         Integee	Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 0 0		
Zinc         ppm         ASTM D5185(m)         0         2             Sulfur         ppm         ASTM D5185(m)         677             Lithium         ppm         ASTM D5185(m)          677             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >20         1             Sodium         ppm         ASTM D5185(m)         >20         1             Potassium         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D6304*         0              ppm Water         ppm         ASTM D6304*         12              INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 0 0		
Sulfur         ppm         ASTM D5185(m)         677             Lithium         ppm         ASTM D5185(m)         <1	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 0 0 0	  	
LithiumppmASTM D5185(m)<1CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185(m)>201SodiumppmASTM D5185(m)0PotassiumppmASTM D5185(m)>200ppm WaterppmASTM D6304*12INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%ASTM D7844*0NitrationAbs/cmASTM D7624*1.9	Boron Barium Molybdenum Manganese Magnesium Calcium	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	0 0 0 0 <1	  	
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >20         1             Sodium         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D5185(m)         >20         0             ppm Water         ppm         ASTM D6304*         12             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 0 0 <1 4	   	
Silicon         ppm         ASTM D5185(m)         >20         1             Sodium         ppm         ASTM D5185(m)         0             Potassium         ppm         ASTM D5185(m)         >20         0             ppm Water         ppm         ASTM D6304*         12             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 0 0 <1 4 2	    	
Sodium         ppm         ASTM D5185(m)         0             Potassium         ppm         ASTM D5185(m)         >20         0             ppm Water         ppm         ASTM D6304*         12             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 0 0 <1 4 2 677	    	    
Potassium         ppm         ASTM D5185(m)         >20         0             ppm Water         ppm         ASTM D6304*         12             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	0 0 0 0 <1 4 2 677 <1		
ppm Water         ppm         ASTM D6304*         12             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 limit/base	0 0 0 0 <1 4 2 677 <1		
INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%ASTM D7844*0NitrationAbs/cmASTM D7624*1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	0 limit/base	0 0 0 0 <1 4 2 677 <1 current 1	      history1	      history2
Soot %         %         ASTM D7844*         0             Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b> ASTM D5185(m) ASTM D5185(m)	0 limit/base >20	0 0 0 0 <1 4 2 677 <1 577 <1 2 1 0	       history1	      history2
Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm   ppm	ASTM D5185(m) ASTM D5185(m)	0 limit/base >20	0 0 0 0 <1 4 2 677 <1 677 <1 2 1 0 0 0	      history1	     history2
Nitration         Abs/cm         ASTM D7624*         1.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium ppm Water	ppm   ppm	ASTM D5185(m) ASTM D5185(m)	0 limit/base >20 >20	0 0 0 0 <1 4 2 677 <1 2 677 <1 2 1 0 0 0 12	      history1   	      history2   
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium ppm Water INFRA-RED	ppm   ppm	ASTM D5185(m) ASTM D5185(m)	0 limit/base >20 >20	0 0 0 0 <1 4 2 677 <1 <i>current</i> 1 0 0 12 <i>current</i>	      history1    history1	      history2    history2
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Potassium ppm Water INFRA-RED Soot %	ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	0 limit/base >20 >20	0 0 0 0 3 3 4 2 677 <1 2 677 <1 2 677 <1 2 0 1 2 0 0 12 0 0	      history1    history1	      history2    history2

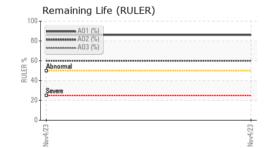


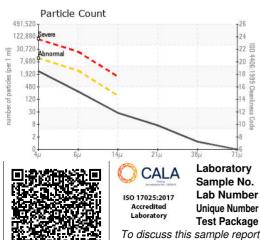
# **OIL ANALYSIS REPORT**









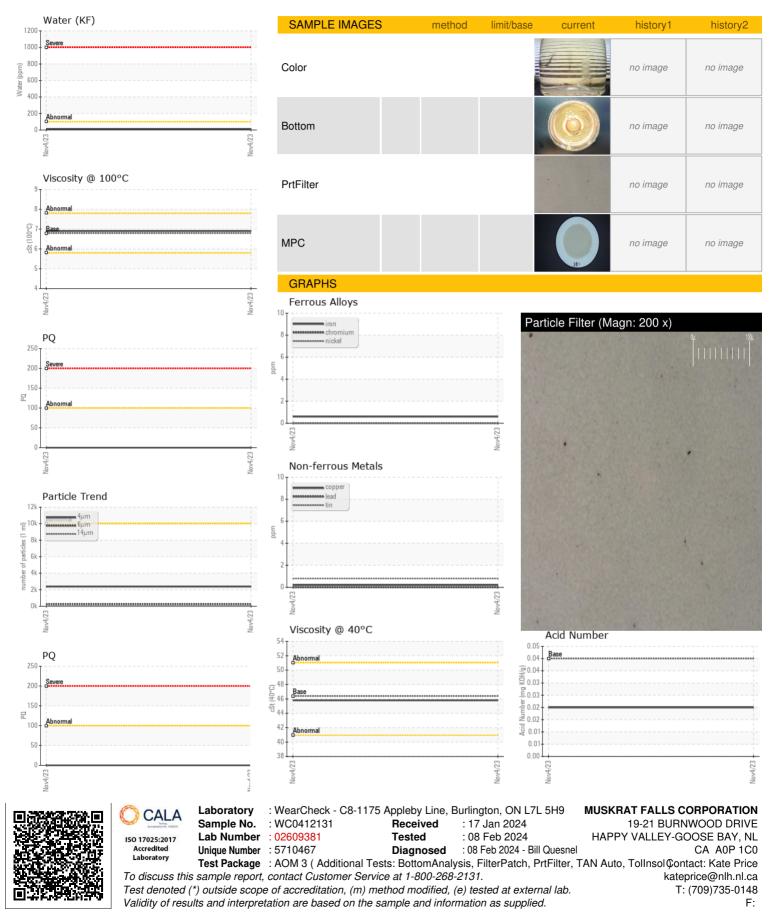


Particles >6µm         ASTM D7647         >2500         252             Particles >14µm         ASTM D7647         >160         24             Particles >21µm         ASTM D7647         >10         1             Particles >38µm         ASTM D7647         >10         1             Particles >1µm         ASTM D7647         >10         1             Oll Cleanlines         ISO 4406 (c)         >20/18/14         18/15/12             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mgR0Hg         ASTM D6971*         <25         86             Acid Number (AN)         mgR0Hg         ASTM D6971*         <25         60             Acid Number (AN)         mgR0Hg         ASTM D6971*         <25         60             Anti-Oxidant 1         %         ASTM D6971*         <25         60             VISUAL         method         limit/base         current <td< th=""><th>FLUID CLEANLIN</th><th>IESS</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></td<>	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14µm         ASTM D7647         >160         24             Particles >38µm         ASTM D7647         >10         1             Particles >38µm         ASTM D7647         >10         1             Particles >38µm         ASTM D7647         >30         0             Ol Cleanlines         ISO 4406 (c)         >20/18/14         18/15/12             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/Irm         ASTM D974*         0.04         0.02             Anti-Oxidant 1         %         ASTM D974*         <25	Particles >4µm		ASTM D7647	>10000	2377		
Particles >21µm         ASTM D7647         >40         6             Particles >38µm         ASTM D7647         >10         1             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >20/18/14         18/15/12             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs./mm         ASTM D74/4*         1.9              Acid Number (AN)         Mg KM D971*         <25	Particles >6µm		ASTM D7647	>2500	252		
Particles >38µm         ASTM D7647         >10         1             Particles >71µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >20/18/14         18/15/12             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/1mm         ASTM D7414'         1.9             Acid Number (AN)         mg/OHg         ASTM D6971'         <25	Particles >14µm		ASTM D7647	>160	24		
Particles >71 µm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >20/18/14         18/15/12             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/1mm         ASTM D7414*         1.9             Acid Number (AN)         mgKOHg         ASTM D7647         <.0.4	Particles >21µm		ASTM D7647	>40	6		
Oli Cleanliness         ISO 4406 (c)         >20/18/14         18/15/12             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/1mm         ASTM D7414*         1.9             Acid Number (AN)         mgK0Hg         ASTM D6971*         <25	Particles >38µm		ASTM D7647	>10	1		
FLUID DEGRADATION       method       limit/base       current       history1       history2         Oxidation       Abs/1mm       ASTM D7414'       1.9           Acid Number (AN)       mg KOHig       ASTM D7414'       1.9           Acid Number (AN)       mg KOHig       ASTM D7414'       1.9           Acid Number (AN)       mg KOHig       ASTM D7414'       1.9           Anti-Oxidant 1       %       ASTM D7817'       <25	Particles >71µm		ASTM D7647	>3	0		
Oxidation         Abs/.tim         ASTM D7414'         1.9             Acidi Number (AN)         mg K0Hig         ASTM D974*         0.04         0.02             Anti-Oxidant 1         %         ASTM D974*         0.04         0.02             Anti-Oxidant 2         %         ASTM D974*         225         60             MPC Varnish Potential         Scale         ASTM D974*         225         60             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         Visual*         NONE         NONE             Yellow Metal         scalar         Visual*         NONE         NONE             Silt         scalar         Visual*         NONE         NONE             Appearance         scalar         Visual*         NORML         NORML             Appearance         scalar         Visual*         NORML         NORML             Emulsified Water	Oil Cleanliness		ISO 4406 (c)	>20/18/14	18/15/12		
Acid Number (AN)         mg K0Hg         ASTM D974*         0.04         0.02             Anti-Oxidant 1         %         ASTM D6971*         <25	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Anti-Oxidant 1         %         ASTM D6971*         <25         86             Anti-Oxidant 2         %         ASTM D6971*         <25	Oxidation	Abs/.1mm	ASTM D7414*		1.9		
Arti-Oxidant 2       %       ASTM D6971'       <25       60           MPC Varnish Potential       Scale       ASTM D7843(m)'       >15       13           VISUAL       method       limit/base       current       history1       history2         White Metal       scalar       Visual*       NONE       NONE           Yellow Metal       scalar       Visual*       NONE       NONE           Precipitate       scalar       Visual*       NONE       NONE           Solt       scalar       Visual*       NONE       NONE            Debris       scalar       Visual*       NONE       NONE            Appearance       scalar       Visual*       NORML       NORML            Godor       scalar       Visual*       NORML       NORML            Odor       scalar       Visual*       NORML       NORML            Godor       scalar       Visual*       NORML	Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	0.02		
MPC Varnish Potential     Scale     ASTM D7843(m)*<>15     13         VISUAL     method     limit/base     current     history1     history2       White Metal     scalar     Visual*     NONE     NONE         Yellow Metal     scalar     Visual*     NONE     NONE         Precipitate     scalar     Visual*     NONE     NONE         Solt     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         Free Water     scalar     Visual*     NORML     NORML         FLUID PROPERTIES     method     limit/base     current     history1     history2       Visc @ 40°C     CSt     ASTM D7279(m)     6.39     45.8         Visc @ 40°C     CSt     ASTM D2270*     100     <	Anti-Oxidant 1	%	ASTM D6971*	<25	86		
VISUALmethodlimit/basecurrenthistory1history2White MetalscalarVisual*NONENONEYellow MetalscalarVisual*NONENONEPrecipitatescalarVisual*NONENONESiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLFree WaterscalarVisual*NORMLNORMLFluid PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)6.796.9FLUID PROPERTIESmethodlimit/basecurrenthistory1Separabilitydih2demASTM D1279(m)6.796.9Separabilitydih2demASTM D2270'100106ASTM ColorscalarASTM D2270'100106Foam TendencyI/II/IIIASTM D892'06.9Foam TendencyI/II/IIIASTM D892'06.9Foam TendencyI/II/III <t< td=""><td>Anti-Oxidant 2</td><td>%</td><td>ASTM D6971*</td><td>&lt;25</td><td>60</td><td></td><td></td></t<>	Anti-Oxidant 2	%	ASTM D6971*	<25	60		
White MetalscalarVisual*NONENONEYellow MetalscalarVisual*NONENONEPrecipitatescalarVisual*NONENONESiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLCodorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>2NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)6.796.9Separabilityoilh20/emASTM D12770100106Separabilityoilh20/emASTM D13427*47.00Foam Tendency//1/1/11ASTM D892*00/0/0ASTM ColorscalarASTM D1260*PASSRust PreventionPASSFALASTM D892*00/0/0SeDIMENTmethodlimit/basecurrenthistory1history1history2Rust Prevention </td <td>MPC Varnish Potential</td> <td>Scale</td> <td>ASTM D7843(m)*</td> <td>&gt;15</td> <td>13</td> <td></td> <td></td>	MPC Varnish Potential	Scale	ASTM D7843(m)*	>15	13		
Vellow MetalscalarVisual*NONENONEPrecipitatescalarVisual*NONENONESiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLCodorscalarVisual*NORMLNORMLFree WaterscalarVisual*>2NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D2270'100106Separabilityaih2olmASTM D2270'100106Air Release TimeminASTM D327'47.00Foam TendencyI/I/IIIASTM D892'00/0/0Fami StabilityI/I/IIIASTM D892'00/0/0ASTM ColorscalarASTM D1500'0.5<1.0Rust PreventionPASSFALASTM D665'PASSSEDIMENTmethodlimit/basecurrenthistory1history2Pentane Insolubles%ASTM D8	VISUAL		method	limit/base	current	history1	history2
PrecipitatescalarVisual*NONENONESiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLCodorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>2NEGFree WaterscalarVisual*-2NEGFullD PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D279(m)6.796.9Viscosity Index (VI)ScaleASTM D277100106Separabilityoilh20(emASTM D1401*40/40/041/39/0 (20)Air Release TimeminASTM D3427*47.00Foam Tendency//////IIASTM D892*00/0/0ASTM ColorscalarASTM D1500*0.5<1.0	White Metal	scalar	Visual*	NONE	NONE		
SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>2NEGFree WaterscalarVisual*>2NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)46.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Viscosity Index (VI)ScaleASTM D2270*100106Separabilityoilh2o/emASTM D1401*40/40/041/39/0 (20)Air Release TimeminASTM D3427*47.00Foam TendencyI/I/IIIASTM D892*00/0/0ASTM ColorscalarASTM D150*0.5<1.0	Yellow Metal	scalar	Visual*	NONE	NONE		
DebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*NORMLNORMLFree WaterscalarVisual*>2NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)46.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Separabilityoi/h2o/emASTM D1207100106Air Release TimeminASTM D1401*40/40/041/39/0 (20)Foam TendencyI/I/IIIASTM D892*00/0/0ASTM ColorscalarASTM D1500*0.5<1.0	Precipitate	scalar	Visual*	NONE	NONE		
Sand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>2NEGFree WaterscalarVisual*>2NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)6.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Viscosity Index (VI)ScaleASTM D2270*100106Separabilitydilh2o/emASTM D3427*47.00Foam TendencyI/II/IIIASTM D892*00/0/0ASTM ColorscalarASTM D1500*0.5<1.0	Silt	scalar	Visual*	NONE	NONE		
AppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>2NEGFree WaterscalarVisual*Imit/basecurrenthistory1history2FLUID PROPERTIESmethodimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)46.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Visco@ 100°CcStASTM D2270*100106Separabilityoilh2olenASTM D1401*40/40/041/39/0 (20)Air Release TimeminASTM D3427*47.00Foam TendencyI/II/IIASTM D892*00/0/0ASTM ColorscalarASTM D1500*0.5<1.0	Debris	scalar	Visual*	NONE	NONE		
OdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>2NEGFree WaterscalarVisual*NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)46.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Visco@ 100°CcStASTM D2270*100106Viscosity Index (VI)ScaleASTM D1401*40/40/041/39/0 (20)Air Release TimeminASTM D3427*47.00Foam TendencyI/II/IIIASTM D892*00/0/0ASTM ColorscalarASTM D160*0.5<1.0	Sand/Dirt	scalar	Visual*	NONE	NONE		
Emulsified WaterscalarVisual*>2NEGFree WaterscalarVisual*/NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)46.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Visc @ 100°CcStASTM D7279(m)6.796.9Viscosity Index (VI)ScaleASTM D2270*100106Separabilityoil/b2/emASTM D1401*40/40/041/39/0 (20)Air Release TimeminASTM D3427*47.00Foam TendencyI/II/IIIASTM D892*00/0/0Foam StabilityI/II/IIIASTM D892*00/0/0ASTM ColorscalarASTM D1500*0.5<1.0Rust PreventionPASS/FAILASTM D2272*27005244SEDIMENTmethodlimit/basecurrenthistory1history2Pentane Insolubles%ASTM D893(m)*0.000SEDIMENTmethodlimit/basecurrenthistory1history2	Appearance	scalar	Visual*	NORML	NORML		
Free WaterscalarVisual*NEGFLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)46.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Viscosity Index (VI)ScaleASTM D7279(m)6.796.9Separabilityoil/h2o/emASTM D1401*40/40/041/39/0 (20)Air Release TimeminASTM D3427*47.00Foam Tendency//II/IIIASTM D3427*4520/60/490Foam Stability//II/IIIASTM D892*00/0/0ASTM ColorscalarASTM D1500*0.5<1.0	Odor	scalar	Visual*	NORML	NORML		
FLUID PROPERTIESmethodlimit/basecurrenthistory1history2Visc @ 40°CcStASTM D7279(m)46.3945.8Visc @ 100°CcStASTM D7279(m)6.796.9Viscosity Index (VI)ScaleASTM D2270*100106Separabilityoil/h2o/emASTM D1401*40/40/041/39/0 (20)Air Release TimeminASTM D3427*47.00Foam TendencyI/II/IIIASTM D892*00/0/0Foam StabilityI/II/IIIASTM D1500*0.5<1.0		scalar		>2			
Visc @ 40°C       cSt       ASTM D7279(m)       46.39       45.8           Visc @ 100°C       cSt       ASTM D7279(m)       6.79       6.9           Viscosity Index (VI)       Scale       ASTM D7279(m)       6.79       6.9           Separability       oil/h2o/en       ASTM D2270*       100       106           Separability       oil/h2o/en       ASTM D1401*       40/40/0       41/39/0 (20)           Air Release Time       min       ASTM D3427*       4       7.00           Foam Tendency       I/II/III       ASTM D892*       0       0/0/0           Foam Stability       I/II/III       ASTM D892*       0       0/0/0           Foam Stability       I/II/III       ASTM D892*       0       0/0/0           ASTM Color       scalar       ASTM D1500*       0.5       <1.0	Free Water	scalar	Visual*		NEG		
Visc @ 100°C       cSt       ASTM D7279(m)       6.79       6.9           Viscosity Index (VI)       Scale       ASTM D2270*       100       106           Separability       oil/h2o/em       ASTM D1401*       40/40/0       41/39/0 (20)           Air Release Time       min       ASTM D3427*       4       7.00           Foam Tendency       I/II/III       ASTM D892*       0       ▲ 520/60/490           Foam Stability       I/II/III       ASTM D892*       0       0/0/0           ASTM Color       scalar       ASTM D1500*       0.5       <1.0           ASTM Color       scalar       ASTM D665*       PASS           Quidation Test (RPVOT)       minutes       ASTM D2272*       2700       5244           SEDIMENT       method       limit/base       current       history1       history2         Pentane Insolubles       %       ASTM D893(m)*       0.000	FLUID PROPERT	IES	method	limit/base	current	history1	history2
Viscosity Index (VI)         Scale         ASTM D2270*         100         106             Separability         oil/h2o/em         ASTM D1401*         40/40/0         41/39/0 (20)             Air Release Time         min         ASTM D3427*         4         7.00             Foam Tendency         I/II/II         ASTM D892*         0         ▲         520/60/490             Foam Stability         I/II/II         ASTM D892*         0         0/0/0             ASTM Color         scalar         ASTM D1500*         0.5         <1.0	Visc @ 40°C	cSt	ASTM D7279(m)	46.39	45.8		
Separability       oil/h2o/em       ASTM D1401*       40/40/0       41/39/0 (20)           Air Release Time       min       ASTM D3427*       4       7.00           Foam Tendency       I/II/III       ASTM D892*       0       ▲ 520/60/490           Foam Stability       I/II/III       ASTM D892*       0       0/0/0           Foam Stability       I/II/III       ASTM D892*       0       0/0/0           ASTM Color       scalar       ASTM D1500*       0.5       <1.0	Visc @ 100°C	cSt	ASTM D7279(m)	6.79	6.9		
Air Release Time       min       ASTM D3427*       4       7.00           Foam Tendency       I/II/III       ASTM D892*       0       ▲ 520/60/490           Foam Stability       I/II/III       ASTM D892*       0       0/0/0           ASTM Color       scalar       ASTM D1500*       0.5       <1.0	Viscosity Index (VI)	Scale	ASTM D2270*	100	106		
Foam Tendency         I/II/III         ASTM D892*         0         ► 520/60/490             Foam Stability         I/II/III         ASTM D892*         0         0/0/0             ASTM Color         scalar         ASTM D1500*         0.5         <1.0	Separability	oil/h2o/em	ASTM D1401*	40/40/0	41/39/0 (20)		
Foam Stability         I/II/III         ASTM D892*         0         0/0/0             ASTM Color         scalar         ASTM D1500*         0.5         <1.0	Air Release Time						
ASTM Color         scalar         ASTM D1500*         0.5         <1.0             Rust Prevention         PASS/FAIL         ASTM D665*         PASS             Oxidation Test (RPVOT)         minutes         ASTM D2272*         2700         5244             SEDIMENT         method         limit/base         current         history1         history2           Pentane Insolubles         %         ASTM D893(m)*         0.000	,						
Rust Prevention       PASS/FAIL       ASTM D665*       PASS           Oxidation Test (RPVOT)       minutes       ASTM D2272*       2700       5244           SEDIMENT       method       limit/base       current       history1       history2         Pentane Insolubles       %       ASTM D893(m)*       0.000	,	1/11/111					
Oxidation Test (RPVOT)         minutes         ASTM D2272*         2700         5244             SEDIMENT         method         limit/base         current         history1         history2           Pentane Insolubles         %         ASTM D893(m)*         0.000				0.5			
SEDIMENT         method         limit/base         current         history1         history2           Pentane Insolubles         %         ASTM D893(m)*         0.000	Rust Prevention						
Pentane Insolubles % ASTM D893(m)* 0.000	Oxidation Test (RPVOT)	minutes	ASTM D2272*	2700	5244		
	SEDIMENT		method	limit/base	current	history1	history2
Toluene Insolubles         %         ASTM D893(m)*         0.001	Pentane Insolubles	%	ASTM D893(m)*		0.000		
	Toluene Insolubles	%	ASTM D893(m)*		0.001		

s.e	🔘 CALA	Laboratory	: WearCheck - (	C8-1175 Appleby Line, E	Burlington, ON L7L 5H9	MUSKRAT FALLS CORPORATION
포끝	Accreditation No. 100/019	Sample No.	: WC0412131	Received	: 17 Jan 2024	19-21 BURNWOOD DRIVE
	ISO 17025:2017	Lab Number	: 02609381	Tested	: 08 Feb 2024	HAPPY VALLEY-GOOSE BAY, NL
行なり	Accredited	Unique Number	: 5710467	Diagnosed	: 08 Feb 2024 - Bill Quesne	CA A0P 1C0
2 <b>4</b>	Laboratory	Test Package	: AOM 3 ( Addit	ional Tests: BottomAnaly	sis, FilterPatch, PrtFilter,	TAN Auto, TolInsol Contact: Kate Price
	To discuss this	s sample report,	contact Custom	er Service at 1-800-268-	-2131.	kateprice@nlh.nl.ca
	Test denoted (	T: (709)735-0148				
	Validity of resu	Its and interpre	tation are based	on the sample and infor	mation as supplied.	F:



# **OIL ANALYSIS REPORT**

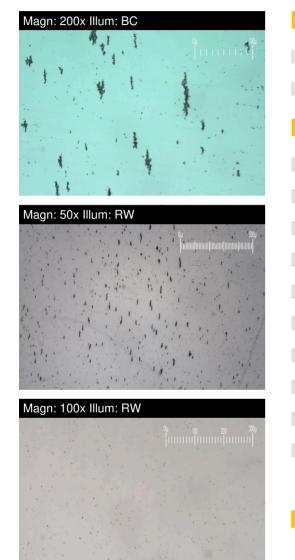


## FERROGRAPHY REPORT

#### Area [1846303] Machine Id UNIT3 GEN THRUST BEARING Component

Thrust Bearing

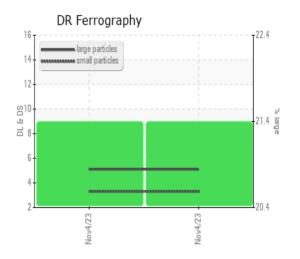
PETRO CANADA TURBOFLO XL46 (5556 LTR)

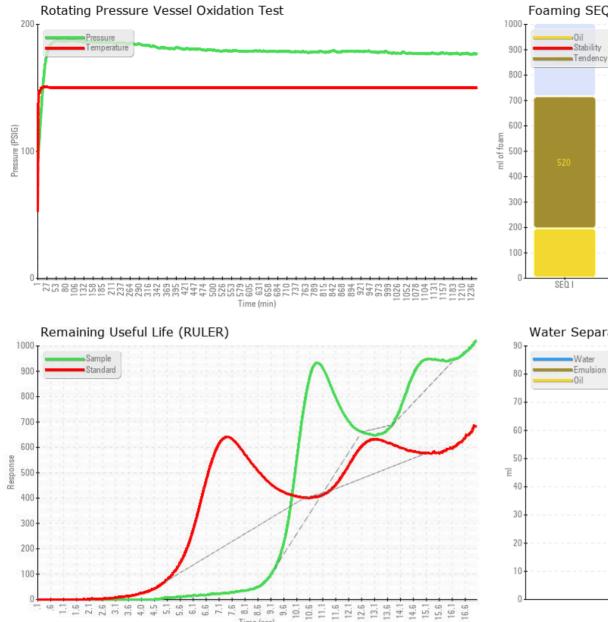


DR-FERROGRAP	ΉY	method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		5.1		
Small Particles		DR-Ferr*		3.3		
Total Particles		DR-Ferr*	>	8.4		
Large Particles Percentage	%	DR-Ferr*		21.4		
Severity Index		DR-Ferr*		9		
FERROGRAPHY		method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	ASTM D7684*		2		
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		1		
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*				
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*		1		
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Lubricant Degradation	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*				
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1		

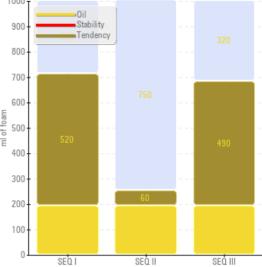
### WEAR

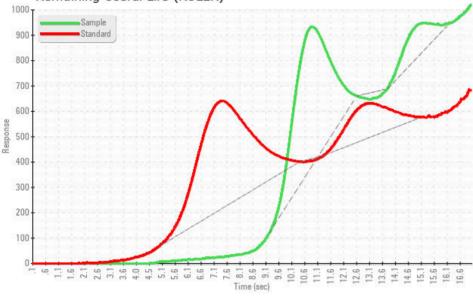
All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.



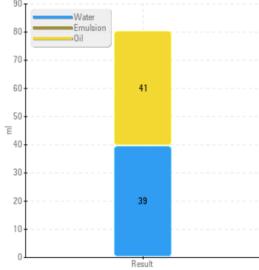


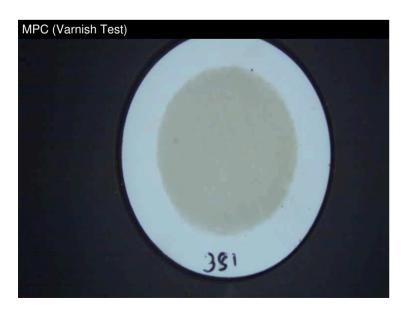
Foaming SEQ I/II/III



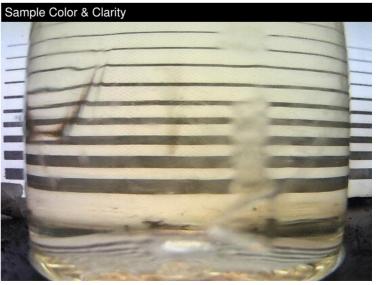


Water Separability





Report Id: MUSHAP [WCAMIS] 02609381 (Generated: 02/08/2024 10:12:22) Rev: 1



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