

OIL ANALYSIS REPORT

Sample Rating Trend



North Big Ridge 2 Component

Compressor Fluid

PETRO CANADA TURBOFLO R&O 150 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the component.

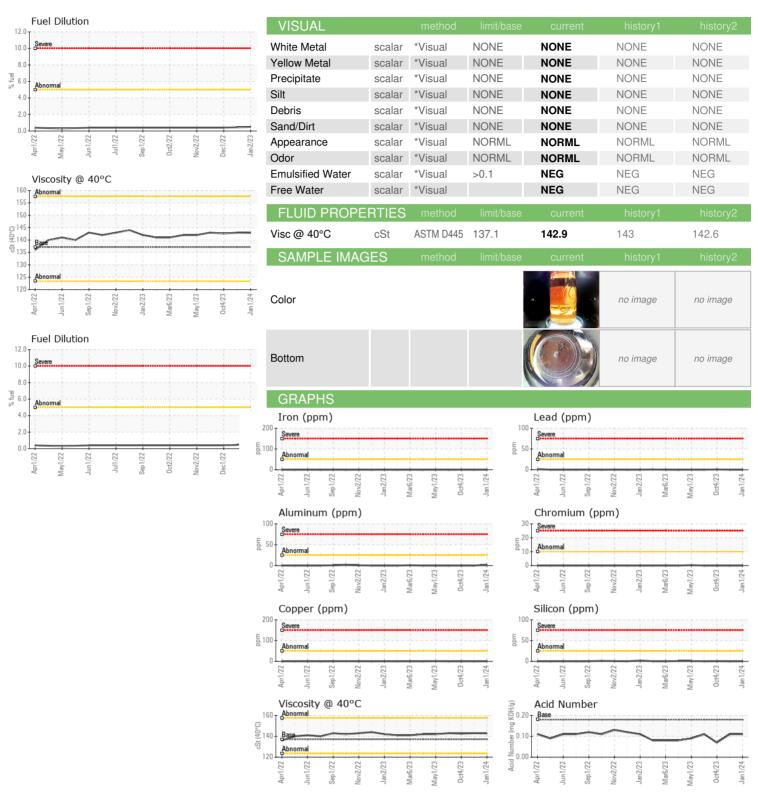
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Number Client Info PCA0103444 PCA0103443 PCA00091 Sample Date Client Info 01 Jan 2024 01 Dec 2023 04 Oct 20 01 Age 01 Age 01 Dec 2023 04 Oct 20 01 Age 01 Age 01 Dec 2023 04 Oct 20 01 Age 01 Age 01 Dec 2023 04 Oct 20 02 Dec 2023 05 Dec 2023 0	OAMBLE WEST		MISOSS JUIES	ore gobrore mostore	marres marres out	ore emisse.	
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 100860 100136 100003 Oil Age hrs Client Info 12186 11462 11329 Oil Changed Client Info Not Changd Not Changd Not Changd Sample Status Normal NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history1 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >25 2 0 0 Chromium <td>Sample Number</td> <td></td> <td>Client Info</td> <td></td> <th>PCA0103444</th> <td>PCA0103443</td> <td>PCA0091311</td>	Sample Number		Client Info		PCA0103444	PCA0103443	PCA0091311
Oil Age hrs Client Info 12186 11462 11329 Oil Changed Client Info Not Changd	Sample Date		Client Info		01 Jan 2024	01 Dec 2023	04 Oct 2023
Oil Changed Sample Status Client Info MormAL Not Changd NORMAL Not Changd NoRMAN Not Changd NoRMAN </td <td>Machine Age</td> <td>hrs</td> <td>Client Info</td> <td></td> <th>100860</th> <td>100136</td> <td>100003</td>	Machine Age	hrs	Client Info		100860	100136	100003
NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1	Oil Age	hrs	Client Info		12186	11462	11329
CONTAMINATION method limit/base current history1 history1 Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >25 2 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >50 0 0 0 Copper ppm ASTM D5185m >50 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Water WC Method >0.1 NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 Chromium ppm ASTM D5185m 0 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >25 2 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >50 0 0 0 Copper ppm ASTM D5185m >50 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >50 0 0 0 Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 0 Lead ppm ASTM D5185m >25 0 0 0 0 Lead ppm ASTM D5185m >50 0 0 0 0 Lead ppm ASTM D5185m >50 0 0 0 0 Lead ppm ASTM D5185m >50 0 0 0 0 Cadamium ppm<	CONTAMINAT	ION	method	limit/base	current	history1	history2
Iron	Water		WC Method	>0.1	NEG	NEG	NEG
Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >25 2 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >50 0 0 0 Copper ppm ASTM D5185m >50 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 <th>WEAR METAL</th> <th>S</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >25 2 0 0 Copper ppm ASTM D5185m >50 0 0 0 Tin ppm ASTM D5185m >50 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m	Iron	ppm	ASTM D5185m	>50	0	0	0
Titanium ppm ASTM D5185m 0 0 0 Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >25 0 0 0 Copper ppm ASTM D5185m >50 0 0 0 Tin ppm ASTM D5185m >50 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >25 0 0 <1 Copper ppm ASTM D5185m >50 0 0 0 Tin ppm ASTM D5185m >15 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 ADDITIVES method limit/base current history1 history1 </td <td>Nickel</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>0</th> <td>0</td> <td>0</td>	Nickel	ppm	ASTM D5185m		0	0	0
Aluminum ppm ASTM D5185m >25 2 0 0 Lead ppm ASTM D5185m >25 0 0 <1	Titanium	ppm	ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >25 0 0 <1 Copper ppm ASTM D5185m >50 0 0 0 Tin ppm ASTM D5185m >15 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >50 0 0 0 Tin ppm ASTM D5185m >15 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 <1	Aluminum	ppm	ASTM D5185m	>25	2	0	0
Tin ppm ASTM D5185m >15 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1	Lead	ppm	ASTM D5185m	>25	0	0	<1
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Male ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m >25 0 0 <1 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m </td <td>Copper</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>50</td> <th>0</th> <td>0</td> <td>0</td>	Copper	ppm	ASTM D5185m	>50	0	0	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 0 <1	Tin	ppm	ASTM D5185m	>15	0	0	0
ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 0 0 0 <1	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 <1 0 Calcium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 4 33 7 8 Zinc ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1 Sodium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base <td>Cadmium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>0</th> <td>0</td> <td>0</td>	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 1 5 2 Calcium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 4 33 7 8 Zinc ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1 Sodium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 1 5 2 Calcium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 4 33 7 8 Zinc ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1 Sodium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	Boron	ppm	ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m		0	0	0
Magnesium ppm ASTM D5185m 0 <1 0 Calcium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 4 33 7 8 Zinc ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1 Sodium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium ppm ASTM D5185m 0 1 5 2 Phosphorus ppm ASTM D5185m 4 33 7 8 Zinc ppm ASTM D5185m 0 0 0 <1	Manganese	ppm	ASTM D5185m		0	0	0
Phosphorus ppm ASTM D5185m 4 33 7 8 Zinc ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1 Sodium ppm ASTM D5185m 0 0 0 <1 Potassium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	Magnesium	ppm	ASTM D5185m		0	<1	0
Zinc ppm ASTM D5185m 0 0 0 <1 Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1 Sodium ppm ASTM D5185m 0 0 0 0 Potassium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	Calcium	ppm	ASTM D5185m	0	1	5	2
Sulfur ppm ASTM D5185m 677 675 770 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1	Phosphorus	ppm	ASTM D5185m	4	33	7	8
CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 <1	Zinc	ppm	ASTM D5185m	0	0	0	<1
Silicon ppm ASTM D5185m >25 0 0 <1 Sodium ppm ASTM D5185m 0 0 0 0 Potassium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	Sulfur	ppm	ASTM D5185m		677	675	770
Sodium ppm ASTM D5185m 0 0 0 Potassium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 0 0 0 Potassium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	Silicon	ppm	ASTM D5185m	>25	0	0	<1
Potassium ppm ASTM D5185m >20 1 0 <1 FLUID DEGRADATION method limit/base current history1 history1	Sodium		ASTM D5185m		0	0	0
·	Potassium			>20	1	0	<1
Acid Number (AN) mg KOH/g ASTM D8045 0.18 0.11 0.07	FLUID DEGRA	NOITAC	method	limit/base	current	history1	history2
(,	Acid Number (AN)	mg KOH/g	ASTM D8045	0.18	0.11	0.11	0.07



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0103444

: 06057390 : 10823339

Recieved Diagnosed Diagnostician : Jonathan Hester

: 10 Jan 2024

: 16 Jan 2024

Test Package: MOB 2 (Additional Tests: FuelDilution) To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

ENERVEST OPERATING - NORTH BIG RIDGE

1426 PALMER STREET CLINCHCO, VA

US 24226

Contact: Service Manager