

## **OIL ANALYSIS REPORT**

Sample Rating Trend



#### Machine Id Copperhead Gap 4 Compone

Compressor Fluid

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

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

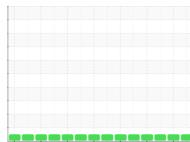
All component wear rates are normal.

#### 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.



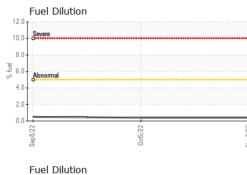


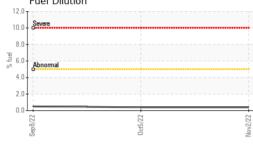
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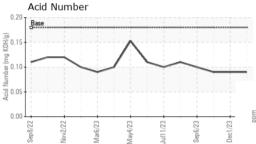
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0111979	PCA0111938	PCA0111857
Sample Date		Client Info		02 Jan 2024	01 Dec 2023	13 Nov 2023
Machine Age	hrs	Client Info		104278	103541	96452
Oil Age	hrs	Client Info		104278	103541	96452
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	<1	0
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m		0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	1	0
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>50	0	<1	0
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	11	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	0	0
Calcium	ppm	ASTM D5185m	0	8	5	5
Phosphorus	ppm	ASTM D5185m	4	35	30	9
Zinc	ppm	ASTM D5185m	0	0	0	0
Sulfur	ppm	ASTM D5185m		688	740	703
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	0	<1	0
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
FLUID DEGRA	DATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.18	0.09	0.09	0.09



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		VISUAL		method	limit/base	current	history1	history2
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
		Silt	scalar	*Visual	NONE	NONE	NONE	NONE
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
/22	22	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
0ct5/22	Nov2/22	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
		Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
					>0.1			
		Free Water	scalar	*Visual		NEG	NEG	NEG
					limit/base	current	history1	history2 144
		Visc @ 40°C	cSt	ASTM D445	137.1		144	
		SAMPLE IMA	JES	method	limit/base	current	history1	history2
0ct5/2	Nov2/22	Color				a	no image	no image
$\wedge$		Bottom					no image	no image
$\sim$		GRAPHS						
		Iron (ppm)			100	Lead (ppm)		
		Severe			100	Severe		
		100 - Abnormal			톱 50	Abnormal		
May4/23 Jul11/23 Sep6/23	Dec1/23	Abnormal			0	Abnormal		
Jul See	De	Sep 8/22	May4/23 -	Sep6/23	Dec1/23	Sep 8/22	May4/23 -	Sep6/23 -
		∞	⊻ -	5 0		∽ ≥ ≥ Chromium (pp		
		100 T			30			
		Severe				Severe		
	E	50						
		50 - Abnormal			<sup>20</sup> 10	Abnormal		
		Abnormal	23	23	20 10	Abnormal	23	23
		Abnormal	May4/23	Sep 6/23	<sup>20</sup> 10	Abnormal	May4,/23	Sep.6/23
		Sep 8/22 Mar6/23	May4/23	Sep6/23	20 10	Sep 8//22	May4/23	Sep6/23
	Mud	200 T	May4/23	Sep5/23	20 10	Abnomal 2227/9das Silicon (ppm)	May4/23	Sep6/23
		200	May4/23	Sep 6/23	20 ed 10 10 100	Sep 8//22	May4/23	Sep6/23
		200 T	May4/23	Sep6/23	20 10 10 10 10 10	Abnormal 2278das Silicon (ppm)	Maj4/23	Sep6/23
		200 200 200 200 200 200 200 200			100 E22 E22 E22 E22 E22 E22 E22 E	Abnormal 222000 Silicon (ppm) Severe Abnormal		
		200 200 200 200 200 200 200 200			100 E22 E22 E22 E22 E22 E22 E22 E	Abnormal 222000 Silicon (ppm) Severe Abnormal		
		Copper (ppm)	May4/23 May4/23		20 wdd 10 0 0 0 0 0 0 0 0 0 0 0 0 0	Abnormal Silicon (ppm) Silicon (ppm) Waters Abnormal Abnormal Silicon (ppm)		Sep6/23 Sep6/23 Dec1/23
	шоо	200 200 200 200 200 200 200 200			20 wdd 10 0 0 0 0 0 0 0 0 0 0 0 0 0	Abnormal Silicon (ppm) Silicon (ppm) Waters Abnormal Abnormal Silicon (ppm)		
	шоо	50         Abnormal           0         Copper (ppm)           0         Copper (ppm) <td></td> <td></td> <td>20 wdd 10 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>Abnormal Silicon (ppm) Silicon (ppm) Waters Abnormal Abnormal Silicon (ppm)</td> <td></td> <td></td>			20 wdd 10 0 0 0 0 0 0 0 0 0 0 0 0 0	Abnormal Silicon (ppm) Silicon (ppm) Waters Abnormal Abnormal Silicon (ppm)		
	шоо	50 Abnormal 0 Copper (ppm) 200 500 200 200 200 200 200 200		Sep 6/23	100 100 100 100 100 100 100 100	Abnormal Silicon (ppm) Silicon (ppm) Waters Abnormal Abnormal Silicon (ppm)		Sep6/23
	шоо	200 200 200 200 200 200 200 200	May4/23	Sep 6/23	100 100 100 100 100 100 100 100	Abnormal Silicon (ppm) Severe Abnormal Silicon (ppm) Severe Abnormal CZUZ/VON Severe Abnormal CZUZ/VON CZUZ/VON CZ	E2/tyleW	Sept6/23
	шоо	50 Abnormal 0 Copper (ppm) 200 500 200 200 200 200 200 200		Sep 6/23	100 E22 E22 E22 E22 E22 E22 E22 E	Abnormal Silicon (ppm) Silicon (ppm) Waters Abnormal Abnormal Silicon (ppm)	E2/tyleW	
Inclusion Contraction Contract	ooratory nple No. Number que Number t Package	Copper (ppm) Copper (ppm) Co	EZI-HAEW EZI-HAEW 501 Madia Recieved Diagnost Tests: Fu	son Ave., Ca d : 10 ed : 12 tician : Dor ielDilution )	ry, NC 27513 Jan 2024 Jan 2024 Baldridge	Septimization (ppm) Silicon (ppm) Nov2122 Mate/C13 M	EZI-Hew EZI-Hew TOPERATING - C 3681 F CL	Sep6/23 Sep6/23 Dec1/23 Dec1/23
ificate L2367 Tes Standard Standard St	poratory nple No. Number que Number t Package pple report, co	50 4 50 4 50 50 50 50 50 50 50 50 50 50	EZI-HAEW EZI-HAEW 501 Madia Recieved Diagnosi Tests: Fu <i>ice at 1-8</i>	son Ave., Ca d :10, ed :12, tician : Dor uelDilution ) 200-237-1365	ry, NC 27513 Jan 2024 Jan 2024 Baldridge	Septimization (ppm) Silicon (ppm) Nov2122 Mate/C13 M	EZI-Hew EZI-Hew TOPERATING - C 3681 F CL	COPPERHEAD GAI RABBIT RIDGE LEVELAND, V/ US 24222